

More than Bricks and Mortar: The Right to Healthy Housing

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ABSTRACT

More than one-third of the world's population has experienced some form of lockdown during the COVID 19 pandemic (Jankowicz, 2020). With so many people confined to their residences, homes are taking on new roles as classrooms, business places, meeting spaces, recreational areas, and in some cases, quarantine or hospital rooms. The pandemic is highlighting the importance of housing as a place of safety and health. The physical environment impacts every aspect of our health and well-being, either positively or negatively. Improved housing conditions can save lives, prevent disease, increase quality of life, reduce poverty, help mitigate climate change, and contribute to the achievement of Sustainable Development Goals (WHO, 2018a). This paper seeks to reexamine the links between housing and health from a population health perspective. It uses evidence and case studies to outline issues and identify some best practices from around the world. It concludes with recommendations for improving health and quality of life through the lens of the physical environment in which we spend most of our time.

CONTEXT

The World Health Organization (WHO) guidelines for housing and health focus on five primary areas. The first deals with health hazards related to overcrowding, which is a particularly important factor in assessing the risk for COVID 19 and other infectious diseases, like TB. In Kyrgyzstan, for example, household crowding causes 18.13 deaths per 100,000 from TB per year (Forouzanfar, et al., 2015). Along with increased susceptibility to respiratory and infectious diseases, crowded housing (more than three people per room) results in heightened risk for diarrhea and gastroenteritis, and mental stress (Shannon, et al., 2018).

The second and third areas have to do with temperature. Both low and high temperatures can have negative health consequences. Cold indoor temperatures have been associated with increased blood pressure, asthma symptoms, and poor mental health, as well as excess winter mortality and morbidity (Lima, et al., 2020). A UK study found that 9,700 of the country's excess deaths in 2017 could have been prevented by eliminating cold housing (Guertler & Smith, 2018). There is little research focusing on high indoor temperature, but high outdoor temperatures contribute to greater cardiovascular mortality and emergency hospitalizations, especially for the elderly. For example, Japan declared a natural disaster in 2018 when a heatwave caused 22,000 hospitalizations, nearly half of those hospitalized were seniors ("Japan Declares Heatwave a Natural Disaster," 2018).

The fourth area of concern relates to in-home injuries. In 2016 over 644,855 children under the age of 15 were killed by an injury globally, and between 10 million and 30 million suffered a non-fatal injury (Sleet, 2018). A large proportion of these incidents occur in the home. Common in-home hazards include falls, burns, poisonings, ingestion of foreign objects, smoke inhalation,

drowning, cuts, and crushing or fracturing of bones as a result of structural collapse. In 2012, India recorded over 2600 deaths and 850 various injuries resulting from the collapse of over 2700 buildings (Chalabi, 2013). Low-income populations are at higher risk for in-home injury. In the United States, for example, children in low-income families are more likely to be injured in falls as well as burns and less likely to live in a home with a smoke alarm (Sheilds, 2019). Therefore, reducing housing hazards will also reduce health disparities.

The fifth area of concern highlights the effects of indoor environmental hazards like asthma triggers, water quality, air pollution, lead, noise, radon, tobacco smoke, asbestos, and pest infestations. Poor indoor air quality, for instance, is associated with allergies, a weakened immune system, cancer, and skin, eye, nose, and throat irritation (Leung, 2015). It also can impact the reproductive, nervous, and cardiovascular systems. Second-hand smoke is a prominent indoor air pollutant that causes over 880,000 premature deaths annually (Yousuf et al., 2020). Lead is also a wide-spread and dangerous in-home environmental hazard. Based on 2015 data, lead exposure accounts for 12.4% of the global burden of intellectual disability (Grover & Jhanda, 2017).

These health risks are not spread evenly among populations. As mentioned above, low-income residents are at greater risk for injury and other adverse health outcomes. There are also differences between low-middle-income countries (LMICs) and high-income countries (HICs). HICs, for example, tend to have higher rates of asthma than do LMICs (Enilari & Sinha, 2019). Finally, women around the world have unique needs for housing based on mental and physical health issues as well as social and economic status. Globally, poverty impacts women more acutely than their male counterparts (Gupta, 2017). Safety is a high priority for women's health. Women living in unsafe housing are at risk of sexual assault and violence (Milaney, Ramage, Fang, & Louis, 2017). Lack of safety is one of the main reasons that women struggle with unstable housing and homelessness. Most temporary housing is designed to meet the needs of men, presenting mothers with acute challenges (Gaetz, Donaldson, Richter, & Gulliver, 2013). Pregnant women miss out on prenatal care, and those with children struggle to find a place in temporary housing. Lack of shelter security also puts women at greater risk of premature death, and conditions including substance abuse, mental illnesses, respiratory ailments, diabetes, sexually transmitted infections, HIV, hypertension, dental problems, and other conditions. Women who lack stable housing are three times more likely to commit suicide than men living in the same conditions and six times more likely than women who are adequately housed (Canadian Women's Health Network, 2012).

Canada Case Study: Canada is a high-income country, well known for its wilderness, natural beauty, hockey, and universal access to medical care. Freedom and equality are important values that undergird Canadian society, as evidenced by ranking in the top 10 jurisdictions on the human rights index (Vasquez & Porcnik, 2019). Health and human rights of Indigenous, working class, and marginalized communities blemish this otherwise high standard. Long term care

homes, mostly inhabited by another marginalized group, seniors, are ground zero for the COVID-19 outbreak.

Snapshot of Canadian Health - Canada ranks number one on global indices for quality of life (Sherpert, 2019) and mental and physical health status are relatively robust. Like other high-income countries, the average age of Canadians is relatively old at 41 years (Statistics Canada, 2020).

Housing and Health in Canada - The majority of Canadians are homeowners, yet housing in Canada's major cities is unaffordable for many (Uppal, 2019); Vancouver has the fourth most expensive housing in the world (CBRE, 2019). International money laundering in the Canadian housing market is a recent contributor to the affordability crisis (Kirby, 2019) but high demand for housing from immigrants, real estate investors and others also contributes to high prices. The relatively stable economy, moderate weather, natural beauty, high quality public education and health care, safety from violence, clean air, and other qualities make Canada an attractive place to live. For those who own their own homes, paying the mortgage is often challenging, particularly in times like the COVID crisis. Still, homeowners are in a better position than other Canadians whose shelter security is a significant threat to health, particularly because governmental aid to income (\$2000/month) and rent (\$300-500/month) is enough to get by for most people. Financial institutions have also allowed for mortgage payment deferrals during this crisis.

A significant number of Canadians experience precarious housing situations as they struggle to find secure housing, up to and including homelessness. Homelessness, impacting 235,000 Canadians each year (Dej & Ecker, 2018), is but the tip of the iceberg and yet receives greater attention than housing precarity, which is based on housing inadequacy, poor suitability and lack of affordability. Precarious housing puts people at the brink of homelessness.

To make matters worse, housing for Indigenous communities is wholly inadequate for a large part of the First Nations, Metis, and Inuit populations: it's hard to access, too small, substandard, and prone to mold. Government funding for Indigenous communities in the COVID times has addressed some of these problems in the short term. Similarly, during the COVID 19 crisis, vacant hotel rooms have substituted for adequate housing for homeless Canadians. Longstanding inadequacies in housing provision for low income and marginalized Canadians are being addressed by stop-gap measures during the COVID crisis.

Long term national solutions, such as co-op housing, subsidized units, and co-housing have worked very well in Canada and need to be scaled up to improve health for all. One of many noteworthy examples is the Four Sisters Housing Co-operative in Vancouver, which provides mixed-income housing units within an architecturally attractive building coupled with programming to create cohesiveness and neighborliness within one of Canada's poorest postal codes.

On the whole, Canada, dubbed the moral leader of the free world during the COVID crisis (Kristof, 2019), is progressing quite well in terms of housing and health equity, as most people's shelter security needs are sufficiently met, and a national housing strategy has been created. Better attention to the housing needs of Indigenous communities, low income, and other marginalized peoples will improve Canada's prospects for excellent health for all.

India Case Study: With over 1.3 billion people, India faces unique challenges with regard to housing and health, which are partially related to its high urban population density. Over 30% of India's population lives in cities. The country is home to five megacities with at least 10 million inhabitants, and that number is expected to grow to seven by 2030 (World Urbanization Prospects, 2019). This high population density is contributing to a housing shortage. According to government data, about 40 million Indian households face housing shortages—which includes the homeless and persons living in substandard or overcrowded conditions without basic amenities (Housing for All: OECD Economic Surveys, 2019). Other researchers say the number could be as high as 63 million, pointing to acute shortages in rural areas and among low-income groups. (D'souza, 2019). Finally, COVID-19 has turned the housing shortage into a potential humanitarian crisis as India's four million homeless residents struggle to find food and other essentials amid the long national lockdown (Siddiqui & Kataria, 2020).

In-home environmental health threats persist throughout the country. A study looking at the health effects of indoor quality in India found that housing conditions, such as building materials, cooking fuels, sanitation, ventilation, mold, and environmental tobacco smoke are significantly related to negative health outcomes, like asthma, respiratory infections and TB (Kankaria et al., 2014). In particular, research points to the risk posed by unsafe cooking fuels and inadequate ventilation. Twenty-eight percent of India's avoidable deaths are attributable to unsafe cooking, one of the highest rates in the world (Rohra & Taneja, 2016). The housing impacts visible in cities are often more acute in rural areas. The 2015-16 National Family Survey indicates that only 36% of rural families have access to improved sanitation, and only 24% use clean cooking fuel (Ministry of Health and Family Welfare, 2017).

Excessive heat in Indian homes poses many health threats. A 2010 heatwave in Ahmedabad induced all-cause mortality to jump by 43% (Azhar, 2014). Heat is another issue to consider while the nation's population is in lockdown during the COVID-19 crisis. In May, high temperatures in Delhi top 100 or 32 centigrade. The sheer number of residents, particularly those living in poverty, under lockdown, means that the large segment of the population who work in the informal sector may be cut off from basic essentials like food, shelter, health care, and cool spaces. Indian authorities, NGOs and volunteers are taking measures to address the strain on services, but the situation demonstrates that home location and access to services can affect health as much as, if not more than the pandemic.

Despite these obstacles, there are bright spots. India's rapid economic growth over the last decade has increased the rate of housing development, as well as access to public amenities, like

water and electricity (Colmer, 2015). Additionally, India's innovation in the use of Glass Fiber-Reinforced Gypsum (GFRG), a low-cost building material made from industrial waste products that is resistant to natural disasters, cooler, and more environmentally sustainable, is promising (World Economic Forum, 2019).

Although the country's policy makers do attempt to address the link between housing and health, the government's response has mainly focused on initiatives intended to reduce the housing shortage. This includes large construction programs, loan assistance, rent control, and public-private partnerships. Critics point out that building a large number of homes in a short period of time requires the use of inexpensive building materials, which do not always promote good health (D'souza, 2019). There is also the problem of land. New homes are often built on the periphery of cities far away from employment opportunities, and the social networks residents enjoy (D'souza, 2019). COVID-19 shows that access to these networks is critical. The experience of India, the world's largest democracy, illustrates the need to view housing as not just a place of shelter, but a place to promote good health and reinforce healthy behaviors inside the home. Indian innovations such as GFRG, on the other hand, could lead the way for other nations' efforts to address housing shortages in a climate-friendly manner.

POLICY RECOMMENDATIONS

Housing is foundational for better population health. While only 13% of the world's cities have affordable housing (UN Habitat, 2016), many lessons can be gleaned from best practices.

I. Create Cross-Sectional National Housing Strategies that Support Population Health:

Housing strategies at national and city levels are essential guideposts for the development of stable housing for all. Housing plans bring together public, private, and non-profit sectors to create agreements for their collaborative efforts. A combination of public, non-profit and private resources are usually required to guide land acquisition, land use, repurposing of vacant property, financing, construction productivity, design, construction material, tenure systems, and other complexities related to real estate (Charles & Guna, 2019). Best practices in housing include those which are flexible; promote and support independence, personal growth, and dignity; deliver in the most effective way possible; and connect people with their communities and promote inclusion (Ontario Supportive Housing, 2017). Co-op and co-housing are two such examples.

II. Support Co-op and Co-Housing Opportunities: Co-op housing exists on all continents, housing many millions of people in a third space between renting and owning their dwelling, creating stability, and resilient communities. Co-op housing is non-profit housing, owned by an association--not a landlord. Residents become members of the co-op for an indefinite period of time so they could have stable housing for life. Members approve budgets, appoint auditors, and vote on policies that govern life in the co-op.

Co-housing is an innovative approach that combines private home ownership with ease of opportunities for social interaction and connectedness. Most co-housing models are built around

ownership of individual homes, centered around a common hub with a kitchen and gathering space. Co-housing is designed and managed by residents and typically involves environmentally sensitive design with a pedestrian orientation. Sustainable, eco-compatible living is a vital part of co-housing communities.

III. Expand the Use of International Cooperation to Address Home-Based Health Threats:

There is much debate as to how well multilateral international actions and agreements protect the environment or health. International agreements are, however, one of many factors that can lead to a positive outcome. They signal the value the international community places on a particular issue, and they serve as markers for the goals countries seek to accomplish.

In 2011, the United Nations and the WHO came together to form the Global Alliance to Eliminate Lead Paint. The Alliance is one of the few multinational initiatives aimed at making homes healthier. Since its inception, the group has succeeded in raising awareness around the dangers of lead paint and the need for more robust legal controls. With help from the Alliance, over 70 nations have established lead paint action plans or laws (UN environment, 2018). Paint is, however, not the only way lead enters the home. It is also present in some drinking water and soil, as well as some jewelry products (U.S. CDC, 2020). Expanding the Alliance's mandate to include reducing lead exposure from all sources would provide additional protection for vulnerable populations, especially children.

In light of its success around lead paint, the Alliance could serve as a model for additional international coalitions designed to reduce the risk of exposure to other household hazards, like tobacco smoke, radon, or asthma triggers.

IV. Promote the Use of Community Health Outreach Workers to Deliver In-Home

Environmental Education: Outreach programs aimed to improve housing conditions have shown promise in raising awareness of home-based environmental health hazards and improving health outcomes throughout the U.S. and other countries (Geise, 2019). Under the Healthy Homes model, trained outreach workers visit people's homes to deliver education on a comprehensive list of health threats, like lead, asthma triggers, carbon monoxide radon, tobacco smoke, ventilation, pests, and injury or fall hazards. The education focuses on raising awareness of possible dangers and providing simple tips for mitigation of risk. Most recently, variations on the Healthy Homes program have been extended to refugee communities. A 2019 study involving African refugees in the U.S. found that participants who received in-home environmental health education reported improved overall health and a willingness to share what they learned with their neighbors (Woods, Ausman, & Klein, 2019).

The WHO's Guideline on Health Policy and System Support to Optimize Community Health Worker Programmes recognizes the capacity of community health workers to enhance health prevention and promotion activities in such areas as family planning, maternal-child health, mental health, diabetes, and asthma management (WHO, 2018b). With greater training on models like Healthy Homes, community health workers/volunteers, particularly those from within the communities being served, could also be a useful tool in promoting a safe and healthy

in-home environment.

V. Recognize Healthy Housing as a Human Right: International documents, such as the Universal Declaration of Human Rights, have long recognized every person’s right to adequate housing. For example, the UN’s International Covenant on Economic, Social and Cultural Rights states,

“The States Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family, **including adequate food, clothing, and housing, and to the continuous improvement of living conditions.** The States Parties will take appropriate steps to ensure the realization of this right...” (United Nations, n.d.).

There are similar pronouncements in no less than ten other UN covenants and conventions (UN, n.d.), the most recent of which is the 2006 Convention on the Rights of Persons with Disabilities. Despite strong international support for a rights-based approach to housing, few countries have followed suit. Canada is one notable exception, as is South Africa. The Canadian National Housing Strategy Act reads, “It is declared to be the housing policy of the Government of Canada to **(a) recognize that the right to adequate housing is a fundamental human right affirmed in international law...**” (Consolidated Federal Laws of Canada, 2019). South Africa has enshrined a right to adequate housing in its constitution.

The COVID-19 crisis reinforces the importance of housing and other human rights for the betterment of health. Although legal recognition of housing as a right is no guarantee against homelessness or unhealthy living conditions, the Canadian statute shows how international law can serve as a model for national legislation. International law also provides a basis for accountability and reform while acting as a guidepost on the way to the ultimate goal. The international community should continue to encourage countries to recognize housing as a right while also expanding its conception to include not only adequate but also healthy housing. Some nations, such as Canada, have chosen to promote a rights-based approach to housing during COVID-19 by suspending evictions, rent, and mortgage payments. Such actions may also be appropriate during other national emergencies.

CONCLUSION

Housing is more than bricks and mortar. It is an important mechanism to promote health and well-being, which ought to be a human right. Cost effective change is possible, despite the complexities of real estate markets. Stable housing underpins strong economies. Buttressed by strong political will, a health equity approach to housing promises to meet the mental and physical health needs of all.

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