

August, 2021



# Housing Assessment Resource Tools

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Prototype: City of Kelowna  
and Findings of a National Survey

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The report contains hyperlinks to all references and is intended to be read online.

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Suggested citation: C. Whitzman, P. Gurstein, C. E. Jones, A. Flynn, M. Sawada, R. Stevers, M. Tinsley, *Housing Assessment Resource Tools for Canada: Prototype - City of Kelowna and Findings of a National Survey* (Vancouver: University of British Columbia Housing Research Collaborative, 2021).

## SUMMARY

The [right to housing](#) is legislated by the Canadian *National Housing Strategy Act* as of 2019. This means gradual realization of [functional zero](#) homelessness and an [affordable, adequate, and suitable](#) home for every household.

**Without simple, robust, equity-focused, comparable and replicable housing need and land assessments at all levels of government, it is impossible to set meaningful housing targets, or measure progress towards this right.** The Housing Assessment Resource Tools (HART) project aims to support the right to housing for all Canadians.

In this report, we present initial findings of phase 1 of the project, funded by the CMHC Housing Supply Challenge. In the first chapter, we outline the rationale for our housing need and land assessment tools and provide need assessment methods that can identify the size and price points households need to live in adequate and affordable housing; and land assessment methods that focus on government and other non-profit land for social housing to meet very low- and low-income household need. In the second chapter, we prototype these tools in the City of Kelowna, BC. Finally, we report on a national survey of governments and housing providers on how housing need and land assessments are currently used, and their opinions on how they could be improved.

**A unitary definition of “affordable housing” as costing less than 30% of gross household income is too broad to generate effective targets to help households at risk of homelessness.** Based on methods used in the [US](#), [Vancouver](#), and [Melbourne](#) Australia, we define five **household income categories** underlying any housing need assessment:

1. **Very low income:** less than 20-30% of Area Median Income (AMI) or shelter allowance for a single person household on benefits, whichever is lower. In many Canadian communities, this equates to a housing cost of \$375 per month. Approximately 6% of all Canadian households in this category are [most at risk](#) for homelessness due to inadequate economic and social support.
2. **Low income:** 20-49% AMI or one full-time minimum wage, whichever is lower. Considerable recent research on [‘rental wage’](#) shows that the private market is incapable of producing sufficient volume of homes in a range of sizes at a housing cost of \$750 per month or less. This category includes about 16% of Canadian households.
3. **Moderate income:** 50-79% AMI, equivalent to starting salary for a professional job such as nurse or teacher. In most Canadian communities, market homeownership, even for a condominium apartment is not feasible for this group, approximately 20% of Canadian households.
4. **Average income:** 80-119% of AMI, representing the ‘middle class’ and about 20% of total Canadian households. Although few of these households are in housing stress, average income households are currently locked out of the first-time homebuyer market in most Canadian cities.
5. **Higher income:** 120% or more of median income, approximately 40% of Canadian households. The group with most housing wealth.

We define **housing need** using census data for those living in **unaffordable**, **inadequate** (in need of major repair) and **unsuitable** (an inappropriate size for the household) homes. It is rare for housing need assessments to include need by size of household, to include trends on loss of affordable housing, or to include population projections based on household income categories. We derive this simple formula:

[deficit = housing need by income category, divided by size of household] +

[projected net loss of affordable housing over next 10 years, using 10-year trends and assuming Business as Usual (BAU)] +

[population increase and change related need over next 10 years, using 10-year trends and assuming BAU] =

**housing need over the coming decade**

The Canadian government has also been committed to a [gender and intersectional analysis](#) (GBA+) of all policies and programs since 1995. Despite this commitment, housing need assessments have widely varying methods and willingness to analyse housing need by [priority populations](#), which include single mothers, seniors, youth exiting foster care, people with disabilities, Indigenous and racialized households.

Rather than using social housing waiting lists or ‘point in time’ counts of homelessness, we base our housing need data on the Canadian census. We would recommend this method to help derive housing targets at local, provincial/ territorial, and national levels, which can be adjusted every five years.

In order to meet the need of very low-, low- and moderate-income households (about 40% of all households), most [global housing research](#) recommends scaling up social housing on existing or acquired government or other non-profit land. In this report, we introduce a **Land Assessment Tool** that is simple, comparable, replicable and equity focused. The Land Assessment Tool:

- develops a ‘score’ for access to basic services like childcare and public schools; groceries; parks; public transit; and medical and social services.
- examines the capacity of well-located land, especially government and non-profit land, to meet housing need. It includes ‘lazy land’, air rights above single storey uses such as parking lots, libraries and health centres.

We have tested both tools in the City of Kelowna, a mid-sized municipality of 140,000 people, which has already won acclaim from the [CMHC](#) and across Canada for its innovative approach to [housing need assessment](#). We find that despite Kelowna showing remarkable success in combatting loss of affordable rental housing from 2006-16, there are still high levels of housing need in very low income and low-income households. Furthermore, Kelowna has particularly high growth rates for seniors (especially those over 85 years of age) and Indigenous households. The need assessment points to the need for more ambitious social housing targets, with a priority given to available government land. We also recommend private market targets that include the need for larger (2-4 bedroom) moderately priced rental units.

Finally, we report on a **Readiness Survey** of politicians, housing officers/ planners, and housing providers across Canada, that measures their use, understanding and methods related to need and land assessment. We find considerable interest in better housing need and land assessment tools, in order to generate better policy outcomes.



## List of Acronyms

BC: British Columbia

UBC: University of British Columbia

AMI: Area Median Income – the median household income for a Census Area (municipality or region)

HART: Housing Assessment Resource Tool project

BAU: Business as Usual – a continuation of current policy outcomes.

CMA: Census Metropolitan Area, usually an urban region

CA: Census Agglomeration, often equivalent to a mid-sized municipality

CSD: Census Statistical District

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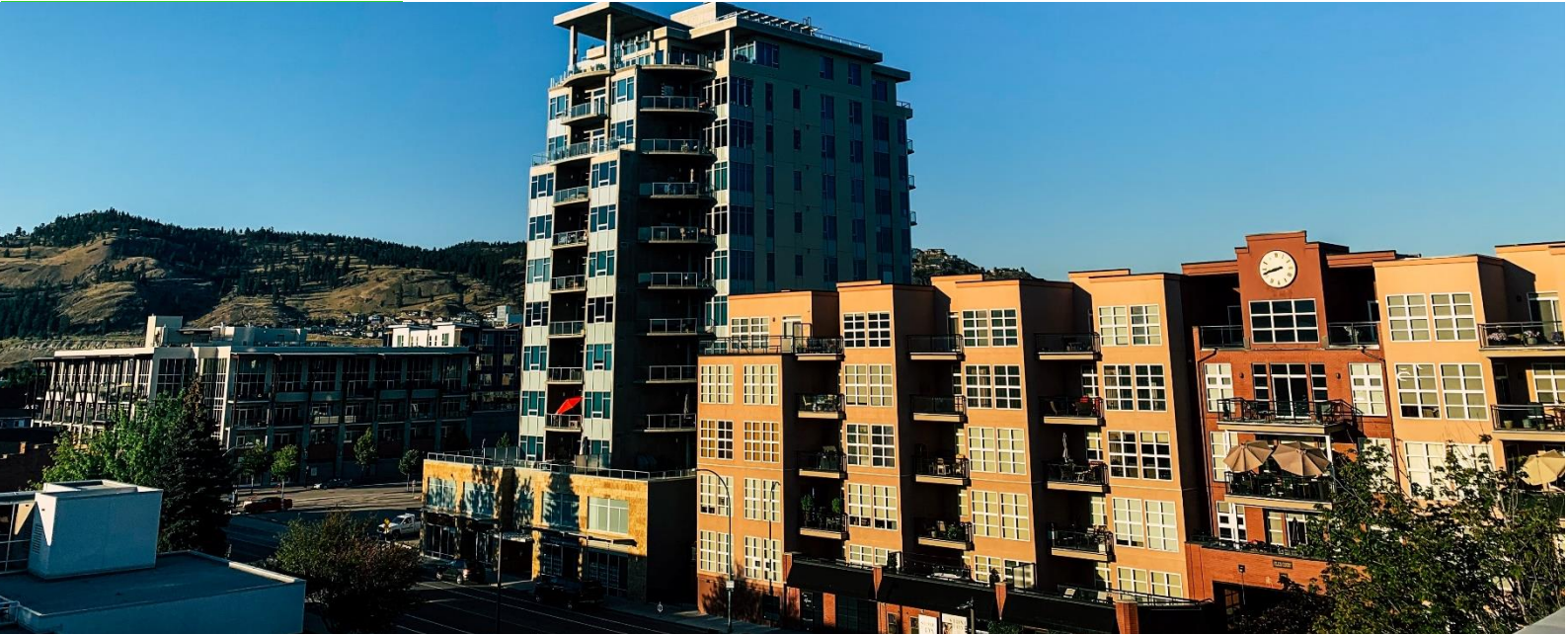
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## THE ROLE OF NEED AND LAND ASSESSMENT IN ‘RIGHT SUPPLY’ OF HOUSING

This report presents the initial findings of a multi-year national project, funded by Impact Canada and the CMHC’s Housing Supply Challenge, to improve planning for affordable housing. As a result of the first stage of our work, we report on:

1. **Better need assessment** methods that can identify the size and price points a range of households need to live in adequate and affordable housing
2. **Better land assessment** methods that focus on government and other non-profit land for social housing
3. Prototype need and land assessment tools tested, through a **proof of concept in the City of Kelowna**.
4. A national ‘**readiness**’ survey of politicians, planners and housing providers to discover their use of, and opinions on, housing need and land assessment.

Without easy-to-use, robust, equity-focused, comparable and replicable housing need and land assessments at all levels of government, it is impossible to measure progress towards eliminating homelessness and gradually enabling the right to adequate housing for all. Take the example of Finland. Finland has been [hailed](#) for being one of the few countries that is gradually eliminating homelessness. Finland uses an inclusive definition of homelessness which includes overcrowding and staying with family and friends as well as rough sleeping and use of emergency shelters. It estimates that [78%](#) of homelessness is hidden by traditional ‘point in time’ homelessness counts, which focus on those sleeping outdoors or in emergency shelters, or otherwise accessing homelessness services. ‘Point in time’ counts tend to grossly underestimate people (often women) doubling up in overcrowded homes with family or friends, or living in violently unsafe situations. In 1987, when national data began to be [collected](#), there were 1,370 homeless families and 17,110 single homeless persons in Finland. In [2019](#) there were 264 homeless families and 4,600 individuals in this country of 5.5 million people, mostly ‘doubling up’ in overcrowded households, with no rough sleeping and fewer than 55 people in emergency shelters. Finland is thus close to ‘[functional zero](#)’ homelessness, although there is still more work to be done to provide an adequate, affordable home for all Finns.

Finland's [success](#) in working towards the elimination of homelessness is due to senior government leadership and **clear shared definitions** underlying good multisectoral planning. All levels of government use a consistent definition of inadequate housing conditions and conduct regular need assessments. These need assessments underly **target-based agreements** between national and municipal governments and housing providers.

Finland also relies heavily on using government land for social housing, and **regularly acquires land and buildings** to expand its supply of social housing. Non-profit housing providers in that country supply about [9,000 dwellings](#) a year through a combination of acquisition and new build. The equivalent target in Canada would be 63,000 new non-profit homes a year, or 819,000 new social homes in the 2017-2030 period of Canada's *National Housing Strategy*, as compared to the current [150,000 target](#).

COVID-19 has increased [evictions](#) and risk of homelessness for low-income groups, especially from marginalized communities, requiring a rethink of these national targets. A recent (June 2021) report from a Canada-BC Expert Panel on Housing Supply and Affordability recommends a [stronger role](#) for housing need assessments, which should be developed every five years using census data and inform targets and plans to achieve those targets. A consensus is emerging: in order to gradually realize adequate housing for all, that **complementary national, provincial/ territorial and municipal/regional targets must be based in a robust and replicable need assessment process, using similar definitions and methods.**

Finland has had a coordinated multisectoral effort to realize the right to housing since the 1980s, based on evidence of what works. Many countries, including Canada, have moved in the opposite direction. The Canadian government used to support [land and home banking](#), acquiring property and existing housing to preserve and expand low-cost options. It used to work with provincial/territorial governments on direct provision of public housing for low-income households. It has shifted to requiring municipal and regional governments with the fewest powers and resources to steer a complex network of mostly private housing developers, with some residual non-profit and state providers who cannot fully meet the need of low-income households. Evidence, particularly [growing homelessness](#), suggests that the weak governmental steering system used from the early 1990s onwards does not have the capacity to adequately manage the provision of this essential right and need. [Need assessment](#) leading to spatialized targets related to ability to pay, along with a land policy that enables low-cost housing, are essential to enabling positive housing outcomes and ending homelessness.

Unlike Finland, **there is currently no standardized method among Canada's three levels of government to measure housing need.** There is an essential starting point for such a method: a [national definition](#) of "Core Housing Need" if a home does not meet one or more of the adequacy, suitability or affordability standards. *Affordable* housing costs less than 30% of before tax household income, whether paid in rent or mortgage. *Adequate* housing does not require any major repairs, according to residents. *Suitable* housing has enough bedrooms for the size (number of people) and makeup (gender, single/couple, etc.) of the need of the households, according to National Occupancy Standard (NOS) requirements. **No level of government, including the federal government, has an accounting of the current deficit of adequate homes by price points (what households can afford) or sizes of household.** Meanwhile, [the deficit grows ever larger](#).

No government-led housing need assessment has tracked **loss of affordable housing** at various price points, such as \$375 a month (the maximum shelter amount provided by social assistance to individuals in many provinces and territories), or \$750 a month (which would be affordable to a household with one full time minimum wage job). It has been estimated that between 2011 and 2016, [15 affordable homes at \\$750 or less were lost for every one new social home](#) constructed in Canada.

Furthermore, most housing strategies aim to address a deficit that may well increase over the five- or ten-year lifespan of a plan. **The need of growing and changing populations must be included in need assessment.**

The problem is sometimes simplified as one of overall supply, with [simplistic solutions](#) like eradicating regulatory controls on home construction, especially in the outskirts of already sprawling cities. But there is no overall housing shortage, as [was the case](#) during World War Two. In aggregate, Canadian households are [over-housed](#): we have more bedrooms than individuals (see Table 1). **Instead, there is a 'right supply' issue: there are critical shortages in low-cost adequately-sized homes, particularly in larger cities.** The [CMHC](#) has found that only 0.2% of apartments in Canada's largest cities are affordable to those households in the lowest income quintile. The [Canadian Centre for Policy Alternatives](#) has found that there are only 24 of 795 neighbourhoods (3%) in Canada where a full-time minimum wage worker can afford to rent an average two-bedroom apartment. There are only 70 neighbourhoods (9%) across Canada where minimum wage earners can afford a one-bedroom home. One in four Canadians earn within \$3 of their province's minimum wage.

**Disaggregated data on marginalized groups** is also weak and inconsistent. Since March 2020, according to the CMHC, "the [COVID-19 crisis](#) has amplified existing housing affordability and homelessness issues for people and populations who are vulnerable." [Almost half](#) of tenant households in Canada do not have enough savings to pay the next month's rent if they lose work – and many have been losing work over the past year, particularly in the tourism and hospitality sector. [Eighty percent](#) of those who lost their service jobs were women. By the end of 2020, across Canada's large cities, [6.1% of tenants were in arrears](#), with 116,929 households collectively owing approximately \$55 million in rent. The state of housing for seniors has been revealed as grossly inadequate, with COVID-19 deaths concentrated in privately-owned long-term care homes (LTCs). During the first wave in Ontario, [73% of deaths](#) were in for-profit homes, despite for-profits only operating 54% of beds. Despite municipal homeless shelters promising better distancing, overcrowded congregate living spaces have become another fulcrum of COVID-19 cases, prompting [a growth in encampments](#).

Local, provincial/territorial and national targets based in consistent, comparable and replicable need assessments can inform **coordinated and effective housing strategies**. One example is the federal [Rapid Housing Initiative](#). Introduced as a one-time stimulus program in September 2020, it was initially a \$1 billion program to help address urgent housing need of vulnerable Canadians, especially in the context of COVID-19. It has a target to construct 3,000 affordable homes over 18 months. There are two streams: construction of rapid modular housing, usually with support services; and acquisition of land and buildings for affordable housing. Most of the agreements were between the federal government and municipalities, with Indigenous governments also eligible for funding. Social supports associated with housing came from provincial/ territorial governments. This program, which has been continued and expanded by [\\$1.5 billion](#) in the 2021 budget, is a good example of inter-government coordination. The federal government also required data from municipalities on need of priority populations, including women heads of households, Indigenous households, seniors, and people experiencing homelessness, as well as identification of suitable, preferably government-owned land for rapid construction of housing. **The Rapid Housing Initiative appears to be the most [efficient and effective](#) housing program introduced since the federal government's re-entry into the housing policy space in 2017.** It should continue to be expanded to encompass acquisition of existing privately owned affordable housing.

This brings us to the next challenge. [Numerous global reports](#) have concluded that use of well-located government land for social housing, along with government acquisition of land and buildings for social housing, are the most effective mechanisms for meeting affordable housing targets. Land costs



comprise between [one quarter to one third](#) of housing costs in most major cities and “[public land ownership... holds the key to affordability in cities where middle- and lower-income families are unable to compete with corporate investors](#)”. The use of non-profit developers also brings a cost savings of between [20-30%](#). The CMHC has a set of ‘social inclusion’ criteria for [well-located land](#), but few Canadian municipalities have mapped the potential of government and non-profit land that could be used for social housing. An easy-to-use, replicable, and comparable **Land Assessment Tool** would help immeasurably in addressing housing need across Canada, especially if the Rapid Housing Initiative is to be expanded and include acquisitions of properties

## Our Affordable Housing Challenge Response: Housing Assessment Resource Tools (HART)

To address these national need, and supported by the federal [Housing Supply Challenge](#), the [Housing Research Collaborative](#) at the University of British Columbia (UBC) has created a need assessment tool based on international best practice, and a land assessment tool to model scenarios to meet need. We have tested these tools in the City of Kelowna, BC. We also developed a national survey of politicians, housing planners and providers to test readiness for national need and land assessment tools. This report summarizes this research.

The Housing Supply Challenge is part of a broader federal initiative called [Impact Canada](#), which seeks **innovative solutions to social, economic and environmental challenges**. The Housing Supply Challenge, supported by the CMHC, focuses on the barriers that limit the creation of new housing. There will be a total of six themed rounds of the challenge, but the first round has been on Data-Driven Solutions.

The research team engaged in this effort has included a range of expertise: urban planning, geomatics, law, computer science and data management. The 10-member Advisory Committee has represented governments and housing providers and financiers who have taken innovative approaches to need and land assessment, including:

- The City of Kelowna, where we have tested our need and land assessment tools, known for their ground-breaking approach to [housing need](#)
- The City of Vancouver, who have taken an [income-category](#) based approach to housing targets, and though their land company Vancouver Affordable Housing Agency, have [enabled](#) thousands of [rapidly-constructed](#) social units on government land in recent years, including modular supportive housing for very low income households
- The City of Toronto, which has adopted the Vancouver approach to rapid construction of [modular supportive housing on government land](#)
- BC Government’s Ministry of Municipal Affairs, which has pioneered [a standardized need assessment tool](#) and resources for local governments
- BC Non-Profit Housing Association, which developed the [Canadian Rental Housing Index](#)
- [VanCity Credit Union](#), who have funded research and financed affordable housing.
- The Women’s Housing and Homelessness Network, which has engaged in [gender and intersectional analysis](#) of housing need.
- The Aboriginal Housing Management Association, which has engaged in [analysis](#) of how well urban Indigenous populations are considered in housing need assessment.
- The [BC Community Land Trust](#), which has scaled up development and perpetual retention of non-profit land for social housing
- The Federation of Canadian Municipalities, which has championed [land and home acquisition](#) as part of COVID-19 recovery

In this report, we describe a **Housing Need Assessment Tool** that calculates housing need using the following simple formula:

[deficit = housing need by income category, divided by size of household] +

[projected net loss of affordable housing over next 10 years, using 10-year trends and assuming Business as Usual (BAU)] +

[population increase and change related need over next 10 years, using 10-year trends and assuming BAU] =

**housing need over the coming decade**

We further attempt to disaggregate housing need using 13 priority populations: (1) survivors, especially women and children, fleeing domestic violence; (2) single mothers; (3) seniors over 65; (4) young adults aged 18-25; (5) Indigenous peoples; (6) racialized groups; (7) newcomers, including refugees; (8) LGBTQ2S+; (9) people with physical disabilities; (10) people with intellectual disabilities; (11) people with psychosocial disabilities (mental health and addiction issues); (12) veterans; (13) homeless people. Unfortunately, our reliance on census data means that the needs of LGBTQ2S+, women and children fleeing domestic violence, veterans and homeless people is currently lacking.

In this report, we also introduce a **Land Assessment Tool** that is equally easy to use, comparable, replicable and equity focused. This responds to the fact that [numerous global reports](#) have concluded that use of existing well-located government land for affordable housing, along with government acquisition of land and buildings for affordable housing, is the most effective mechanism for meeting affordable housing targets. The Land Assessment Tool:

- develops a 'score' for access to basic services like childcare and public schools; groceries; parks; public transit; and medical and social services.
- examines the capacity of well-located land, especially government and non-profit land, to meet housing need. It includes 'lazy land', air rights above single storey uses such as parking lots, libraries and health centres.

We have tested both tools in the City of Kelowna, a mid-sized municipality of 140,000 people, which has already won acclaim from the [CMHC](#) and across Canada for its innovative approach to [housing need assessment](#).

Finally, we report on a **Readiness Survey** of politicians, housing officers/ planners, and housing providers across Canada, that measures their use, understanding and methods related to need and land assessment.

## What is a Good Need Assessment?

A [Housing Need Assessment](#) is

a planning tool which assists the process of identifying the specific housing need of a city. This multi-step process is a way for planners to understand which policies, strategies, and frameworks are the most useful.

In order to steer an essential right and need such as housing, all levels of government need [evidence-based targets](#) related to ability to pay housing costs, with regular monitoring in relation to achievements

towards these targets. However, “many housing need assessments methodologies exist” across Canada, but few are “[innovative](#)”.

Internationally and nationally, housing need assessments have used a combination of:

- Deficit of affordable housing, often broken down by income categories, household size, and vulnerable sub-populations
- Trends in loss of affordable housing
- Projections of population growth and change over a planning period, say 10 years.

In 1944, the Canadian Advisory Committee on Reconstruction responded to an absolute housing shortage affecting all Canadians during World War Two. Its ‘Curtis Commission’ report on housing used three income categories (High, Medium and Low, corresponding to household income thirds) to recommend that 33% of all new housing be developed as public housing by the federal government. In 1972, a [report](#) commissioned by the CMHC used the method developed by the Curtis Commission to recommend that 45% of all new housing be developed as non-profit housing.

In 1966, the [Singapore](#) government estimated the need for 146,000 new public homes over 10 years for a total population of 1.8 million (about 35% of households) to address existing deficit, projected loss of dilapidated housing for redevelopment, and population growth. **It met this target** through aggressive land acquisition and public housing construction.

Canada’s [National Housing Strategy](#), published in January 2018, represents a re-entry into national leadership on affordable housing after three decades of neglect. The headline housing need figures, using 2016 census data, are 1.7 million Canadian households who are in core housing need, a little less than **13% of all households**. The report also provides a figure of 25,000 Canadians who are chronically homeless (defined as homeless for more than five months), with a further 210,000 Canadians experiencing episodic homelessness.

The federal government’s 13-year targets (2017-2030) are to reduce the number of households in core housing need by 525,000, through a combination of 150,000 new deeply affordable homes, some renewal and repairs of existing homes, and housing subsidy. That target would meet the need of only 30% of households in existing deficit as of 2016. It does not take into account any net loss of affordable housing or increased housing need because of population growth over the 13-year period of the plan.

The federal government also aims to reduce by 50% those who are in chronic homelessness. There is no account taken of upward trends in chronic homelessness as affordable housing is lost, nor of population projections. The only population sub-target in the *National Housing Strategy* is 25% of housing for women and girls. There is no statistical justification provided for that sub-target.

But there are signs that a more rigorous approach to housing targets may be on its way. The [National Housing Strategy Act](#) (2019) commits the federal government, and by extension, all other governments in Canada, to a rights-based approach. The act includes a policy focus on “those in greatest need” and a commitment to the “progressive realization of the right to adequate housing”, which means ensuring that no households should be in core housing need. In the [September 2020 Throne Speech](#), and in response to growing concerns about increasing homelessness, the Canadian government committed itself to ending chronic homelessness by 2030. Canada’s housing agency, the [Canada Mortgage and Housing Corporation](#) (CMHC) has an “aspirational goal... to eliminate housing need, to ensure that by 2030, everyone in Canada has a home that they can afford and that meets their need.”

In order to accomplish aspirational goals such as “eliminating housing need” or “eradicating homelessness”, a clear and consistent definition of affordable housing must be used at all levels of



government, one that focuses on adequately sized housing that costs no more than 30% of a household's income. The [evidence](#) is clear that renters are twice as likely to be in housing need and have half the income of homeowners, and that over 50% of those in the lowest income quintile (0-40% Area Median Income) are in housing need.

The advantages of our Housing Need Assessment Tool include the following attributes:

1. **Comparable:** municipalities, regions, provinces/ territories, First Nations should all be able to use a similar approach to assessing need that uses income categories as a basis for housing cost targets; and where results can be compared between areas and across scales.
2. **Easy to use:** smaller municipalities and regions should be able to easily calculate need using publicly available data. They should not need to pay consultants to undertake extensive local surveys in order to find basic quantitative data.
3. **Robust and Replicable:** The need assessment should rely upon, where possible, nationally data collected at regular intervals such as census and Canadian Housing Survey, where such data is available at the Census Subdivision/ Census Metropolitan Area scale. It should include net loss of affordable housing in its calculations as well as projecting future housing demand over the life of a 5- or 10-year housing strategy.
4. **Equity focused:** Need assessment should consider differing sizes of households as well as specific need associated with gender, age, experience of violence, Indigeneity, racialization, differing abilities, and sexuality/gender identity.

## Our Methodology: Income Categories and Housing Need

[Affordable housing](#) in Canada is defined as a home “that can be owned or rented by a household with shelter costs (rent or mortgage, utilities, etc.) that are less than 30% of its gross income”. However, [a patchwork of legacy programs](#) and policies at all three levels of government have used definitions of ‘affordable housing’ that have nothing to do with low-income households’ ability to pay shelter cost. For instance, the [Rental Construction Financing Initiative](#), first announced in 2017 as part of the *National Housing Strategy*, has received \$25.75 billion in low-cost construction loans, roughly ten times the amount the Canadian government has provided for the Rapid Housing Initiative. This program defines affordability as: “At least 20% of units must have rents below 30% of the [median total income](#) of all families for the area, and the total residential rental income must be at least 10% below its gross achievable residential income.” This results in an “affordable rent benchmark” that is [more than \\$2,000/month](#) in most Canadian cities, much more than any low-income household can afford, and 30-40% higher in many cases than median market rents.

Most municipal housing need reports use waiting lists for social housing, which in turn is defined as non-profit housing owned by community housing providers and housing co-operatives, or housing owned by provincial, territorial or municipal governments. The problem is waiting lists in most communities now include thousands of households waiting [up to 17 years](#) for subsidized housing. In Ontario, households can be removed from the waiting list if they [refuse one offer](#) even if the unit is in poor repair or is an inaccessible location in relation to necessary services. They can also be removed from the list if they are in arrears to a social housing provider. Those who take advantage of a [housing subsidy](#) in a private unit will also be dropped from social housing waiting lists, even if the unit is in poor repair or is inadequate in size. For these reasons, social housing waiting lists may grossly underestimate true household need. The disadvantage of using census data for “core housing need” is that it is only available once every five years. **The advantage is that it is the most accurate method of measuring the**

number of households who are in unaffordable, uninhabitable or unsuitable housing, divorced from the politics of trying to reduce social housing waiting lists.

Most municipal housing reports also use ‘point in time’ homelessness count those sleeping without shelter, in emergency shelters, or using homeless drop-in services. This method [drastically undercounts](#) women, girls and gender diverse people who are more likely to ‘double up’ with other households, stay in unsafe and exploitative relationships, and exchange sex for shelter rather than risk the violence and potential loss of child custody associated with the emergency shelter system. **The separation of ‘homeless services’ from ‘housing’ in municipal strategies does not reflect the fact that the increase in homelessness since the 1990s is [directly linked](#) to federal defunding of social and affordable housing policies and the consequent loss of very low-cost homes.**

The CMHC, the [Canadian Rental Housing Index](#), and many municipalities now use income categories to define housing need. However, their methods vary. The CMHC uses income quintiles (Figure 1), the Canadian Housing Rental Index uses income quartiles, and many municipalities use increments of \$10,000 or income deciles. Whatever the method used, it is clear that the most acute issue is not housing supply *per se*, it is housing supply at particular price points. In particular, it is the lowest income category who are overwhelmingly the most likely to be in housing stress, followed by those in the second income category. In some markets, like Toronto and Vancouver, the third income category faces some housing stress as well.

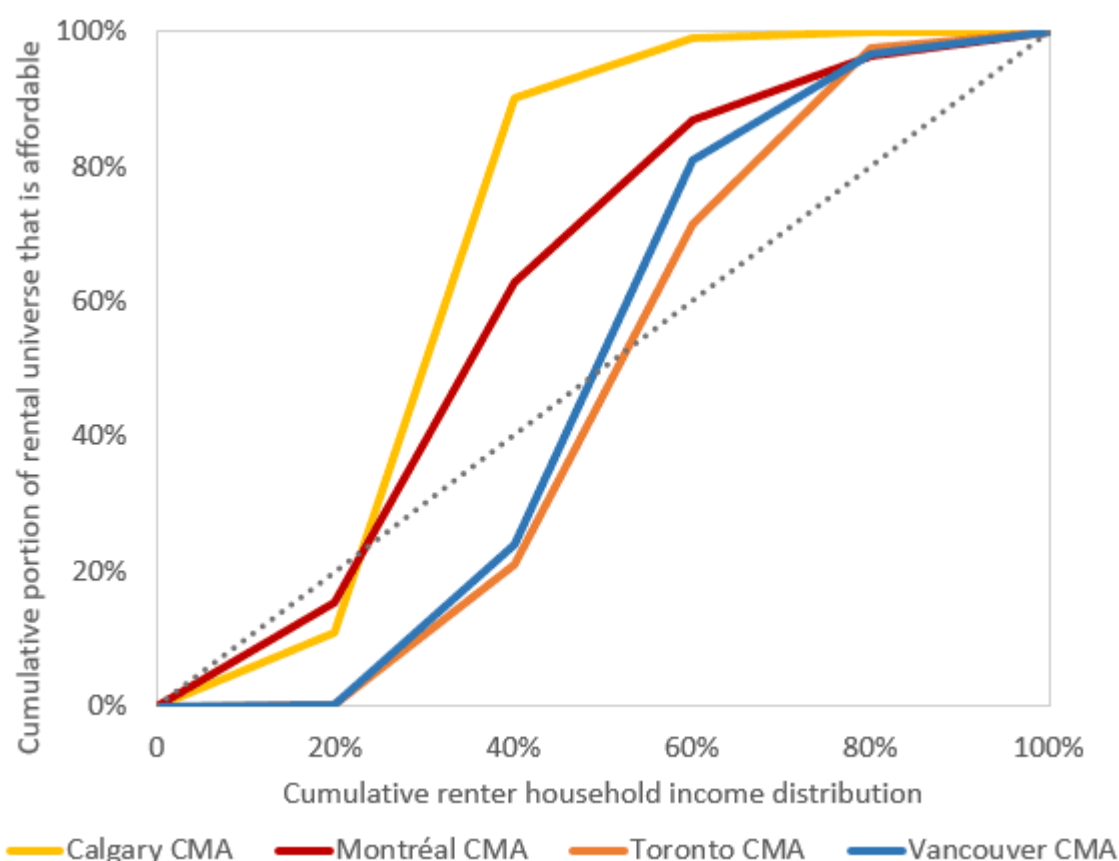


Figure 1. Cumulative portion of market purpose-built rental universe that is affordable to each quintile of the renter household income distribution, select CMAs, 2020 (source: CMHC, [2021](#))

This is the reason that cities like Vancouver provide specific income and price point targets (Figure 2). Those very low-income households earning less than \$15,000 can only afford \$375/month in housing charge (rent or mortgage payment), no matter what the size of household. As is the case in the [US](#), Area Median Income (AMI) varies from locality to locality. While the Canadian median household income was roughly \$57,000 in 2016, AMI in Montreal was only \$61,747, while AMI in Ottawa was \$85,961.



Figure 2. Income category-based housing targets (source: City of Vancouver, 2017)

Using income quartiles or quintiles result in categories that have too much variability in income, especially at the low end. There is too big a difference in ability to afford housing cost between a very low-income household with \$15,000 a year and a moderate income one with \$39,000 a year, even if they are in the same income quartile in a city like Toronto, where the median household income is \$78,378. On the other hand, income deciles and increments of \$10,000 result in too many categories for clear and meaningful targets. We suggest five main income categories, based on Vancouver and US income categorization:

1. **Very low income:** This income category usually consists of households reliant on government benefits: seniors' pensions, disability or unemployment insurance. In most localities and household configurations, this would be an annual income of less than \$15,000, or about 20-30% of AMI. Some households, particularly seniors, may be 'house-poor', with having paid off a mortgage but with very low pension incomes creating housing stress in relation to property taxes and heating costs. With a grossly inadequate shelter allowance of ~\$375 for a single person on benefits in most provinces and territories, the choice for most very low-income households is social housing, highly subsidized private rental, or homelessness. **The market is incapable of supplying maximum rents of \$375 or house prices of \$45,000 in most Canadian communities** and the amount of subsidized rent-geared-to-income homes (both social and private market with rent subsidy) does not come close to meeting need. Across Canada, the proportion of households earning less than \$15,000 in the 2016 census was 5.7%, or 803,680 households.
2. **Low income:** This income category consists of households reliant on a single full-time minimum wage earner, or two part-time minimum wage earners, equating to 20-49% AMI in most communities. Minimum wage ranges from \$11-14 an hour across Canada, so the income range would be \$15-30,000/ year in most areas (assuming a 40-hour work week and no vacation in casualized employment). Considerable recent research on 'rental wage' shows that the private market is incapable of producing sufficient volume of homes – let alone in a range of sizes – to meet the need of low-income households with a maximum rent of \$375-

750 per month. Across Canada, the proportion of households earning between \$15,000 and \$30,000 a year in the 2016 census was 16.2% or 2,310,930 households. **The vast majority of those 1.6 million households in housing need in 2016 are low and very low-income households**, who together comprise about 22% of the population. In France, municipalities have [national targets of 20% social housing](#) (with a higher proportion of new social housing to address existing deficits), and the proportion is 25% in Paris.

3. **Moderate income:** These households are often employed in so-called 'key worker' jobs, equating to 50-79% of AMI. Starting salary for a nurse is about \$41,000 in Canada; starting salary for a teacher is \$30,000 and average salary is \$40,000 per year. Assuming an income range of \$30-55,000/ year in most areas, this equates to a house price of \$105-165,000 or a maximum monthly rent of between \$750 and \$1,375. Private market construction without large-scale government subsidy might not result in affordable rents in this range, especially for larger households and in high-rent cities. In most large communities, market homeownership, even for a condominium apartment, would not be economically feasible either. With some of the highest homeownership costs in the world, Canadian moderate-income households are increasingly reliant on rental housing. Moderate-income households can afford private rental in most urban areas if and only if there is strong regulation against rent increases, including vacancy control (not reverting to market rent with a new tenant). An example of strong rent regulation is [Germany](#), where rents are set by size of apartment, and rent control applies even with change of tenants or renovation. Moderate-income households can also help cross-subsidize very low- and low-income households in mixed-income social housing. Across Canada, the proportion of moderate-income households in 2016 was 19.8% or 2,782,270 households.

Given that very low-, low- and moderate-income households together constitute 41.7% of households, that market rents and homeownership in most large Canadian cities are currently unaffordable to all of these income categories, and that sustainable social housing needs a range of rents in order to be viable, **these figures suggest that in Canada, at least a third of homes should be some form of non-profit housing (including non-profit co-operatives) in order to realize the right to adequate housing.**

4. **Average Income:** These households earn between 80-119% of median income and represent the 'middle class'. Across Canada, the median before-tax household income was \$70,338, so this would equate to an income range of \$55-85,000 in most Canadian cities. In the past, this income category has not been included in affordable housing need assessment. But it is now likely that middle-class young people without inherited wealth cannot enter the homeownership market in most large Canadian cities. The [median multiple](#) used by most international surveys assumes three times household income, or a house price ranging between \$165,000-255,000 being affordable for average income households, a price that is less than a fifth of the median house price in [Vancouver](#), a quarter of prices in [Toronto](#), a third of the price in [Ottawa](#) and half the median price in the [greater Montreal region](#). Monthly rents between \$1,375 and \$2,110 may not be widely available in a growing number of Canadian cities such as Vancouver, Victoria and Toronto. There are [measures that could bring down homeownership prices](#), and reduce unequal tax burdens placed on renters: restricting investment ownership of residential property, greatly reducing capital gains tax exemptions for house sales, progressive property taxes (higher rates for higher-value houses), an end to taxing apartment buildings at higher commercial rates (which simply passes on tax burden to tenants), property tax surcharges for second properties or vacant properties. There is concern that these measures would have negative impacts on older households whose homes are their major source of equity and retirement savings.

Across Canada, the proportion of average income households in 2016 was 20.6% or 2,901,791 households. In the absence of measures to rapidly decrease home prices in

Canada, there is a strong argument that about one third of homes should be rent-regulated private rental, to meet the need of some moderate and most average income Canadian households.

5. **Higher Income:** Households earning 120% or more of median income would be considered higher income for the purposes of housing policy. It is assumed that they would not be in core housing need for either rental or ownership. Across Canada, the proportion of higher income households in the 2016 census was 40.7% or 5,725,957 households. There is thus a strong argument, especially given existing deficits of low-cost affordable housing, **that housing targets should, as is the case in some [German](#) cities, aim for a ‘rule of thirds’: one-third social housing, one-third rent-regulated private rental, and one-third market rental or ownership.** It is also possible that wealth taxes such property taxes should have a progressive element i.e. tax higher-income households at a higher rate.

## Our Methods: Household Size

It is a sign of inadequate gender and intersectional analysis that there is still so much emphasis on studio and one-bedroom apartments for very low-income households. There is evidence that single men are more likely to be chronically homeless in terms of traditional metrics like point in time counts. However, as discussed above, much of women’s homelessness and housing stress is invisible, including overcrowding, living in unsafe accommodation, and staying in violent relationships in order to avoid homelessness. Some single mothers, especially [Indigenous single mothers](#), are excluded from smaller low-cost homes because of concerns about overcrowding. They then risk losing custody of children due to inadequate housing conditions. Once they have lost custody, they find it very difficult to access larger low-cost units, a precondition for regaining custody.

It is thus vital that housing need assessment include the size as well as the income of households in need. Canada does not have an overall problem with housing supply. Many households are over-housed (Table 1) and 1.2 million households – almost one in 10 – [own multiple properties](#). Both over-housed households and multiple property owners tend to be over 50 years of age, often empty-nesters with property-based wealth.

Size of household	Proportion	Size of home	Proportion
1 person	28.2%	0-1 bedroom	14.3%
2 person	34.4%	2 bedroom	25.2%
3 person	15.2%	3 bedroom	34.4%
4 person	13.8%	4 bedroom+	26.1%
5 person +	8.4%		

Table 1. Size of Household and Size of Home, 2016 census (source: Statistics Canada, 2017)

Especially as Canadians are priced out of the homeownership market, it becomes important to set targets for size as well as price of homes, especially rental apartments. The City of Montreal now requires all new multi-family developers to provide at least [20% of all homes as 3+ bedroom](#), including in the 20% of units that need to be set aside for social housing. This is actually slightly less than the 22.2% of 4 person plus households in Canada. The setting of price and size targets at all levels of government need to be informed by a rigorous need assessment that takes into account that whether a low-income household has a single person or two adults and three children, it is their ability to pay that informs their housing options.



## Our Methods: Gender and Intersectional Analysis (GBA+)

Data that is disaggregated by gender, race, disability, age and other grounds can reveal patterns of structural inequality. **Disaggregated data is an essential first step in redressing injustice and realizing the right to housing for all.** The Canadian government and several provinces and territories have [adopted Gender-Based Analysis Plus \(GBA+\)](#), which is “an analytical tool applied across government to assess differential impacts of policies, programs and initiatives on diverse groups of women, men and gender-diverse people with considerations of intersectional socio-demographic factors such as race, ethnicity, income, age and disability”. The CMHC is requiring evidence of intersectional analysis in housing programs such as the Rapid Housing Initiative.

There are 12 groups that the CMHC defines as priority populations for affordable homes: groups for whom the general population proportion of 13% of households living in housing need is greatly exceeded. There is also a 13<sup>th</sup> group, women-headed households and specifically single mothers, implied in the *National Housing Strategy* targets of 25% of funding going to housing for women-led households. It is important to recognize that most people do not fall into uni-dimensional categories, and that intersectional identities of multiple individuals within households influence housing need (e.g. an Indigenous single mother living with a parent who has multiple disabilities).

1. **Women and children fleeing domestic violence:** COVID-19 has [exacerbated](#) already high levels of violence in Canada, with about [50%](#) of women reporting at least one experience of physical or sexual violence since the age of 16. The [majority](#) of women who face violence in their homes do not access shelters or emergency services such as police, which makes it very difficult to calculate housing need in this population group. Only [14%](#) of women exiting violence against women shelters are able to access adequate housing. Women and children fleeing violence may require physical and mental health support services as well as affordable and well-located housing.
2. **Female heads of households in general, and single mothers in particular:** In 2016, [40%](#) of Canadian households were led by women. Female-led households were almost twice as likely to be in housing need than male-led households: [27%](#) of women-led sole parent families are in housing need, as compared to 16% of male-led sole parent families. COVID-19 has hit women with young children disproportionately; women with children under 6 have represented [two thirds](#) of those exiting the labour force during the pandemic. In this need assessment we focus on the housing need of single mothers, especially because of the deficit of larger low-rent homes. Well-located homes near childcare, schools, and parks/ playgrounds are particularly important for this group.
3. **Seniors :** People over 65 are the most rapidly growing age group in Canada; with a [68% expected growth rate](#) over the next 20 years. A little less than [15%](#) of the population is over 65, but by 2041, the proportion may well be close to one in four. [One quarter](#) of seniors living alone are in housing need. COVID-19 has exposed [inadequate housing conditions](#) in many seniors' homes, especially privately-run long term care homes. Well-located [accessible](#) homes, often with on-site or nearby health services, are particularly important for this group as they age in place and as many move from independent to assisted living.
4. **Young adults :** Young adults aged 18-25 are about [1.7%](#) of the Canadian population. [Almost one quarter](#) of young adults aged 18-25 who do not live with parents are in housing need. Almost [three quarters](#) of young women experiencing homelessness and 80% of gender-diverse young people experienced abuse as a child. Access to public transit, education and



employment services as well as health and social services are particularly important for this group.

5. **Indigenous peoples:** About [5%](#) of the Canadian population self-identifies as Indigenous, and they are one of the fastest growing populations in Canada, with a 42.5% growth between 2006 and 2016. Whether on reserves, in rural and Northern parts of the country, or in cities, Indigenous people are much more likely to experience homelessness and housing need, due to intergenerational trauma, poverty and violence caused by government policy. Overall, [18%](#) of Indigenous households are in housing need, with much higher proportions in overcrowded or uninhabitable homes. Indigenous seniors are [20](#) times as likely as non-Indigenous seniors to use emergency shelters, and Indigenous children nine times as likely. A rights-based approach would emphasize a [By Indigenous, For Indigenous](#) strategy, in order to respect separate governments and increase access to culturally safe housing.
6. **Racialized people:** The term '[racialized](#)' refers to a person or community who faces systemic or other barriers in historical and contemporary society based on racial prejudice. Statistical analysis from all levels of Canadian government are [only now](#) beginning to disaggregate data by race. More than one in five Canadians, [22.3%](#), are of non-European and non-Indigenous origins as of the 2016 census, and the proportion is increasing. The proportion of the population who self-identifies as Black is [3.5%](#). In 2018, racialized groups were [twice](#) as likely to be in housing stress, and during the COVID-19 pandemic, Black and Indigenous people have been [2.7 times](#) as likely to be in rent arrears. Few social homes are by and for racialized Canadians, and [discrimination](#) occurs in both the private and social markets.
7. **Recent immigrants, especially refugees:** Newcomers (those who have settled in Canada over the previous five years) represent [3.5%](#) of the population as of the 2016 census. Of these, 50% were admitted under the economic category, 24% were under the family reunification program, and 24% were refugees. Refugees who are not privately sponsored often struggle to find affordable and well-located housing, close to mental and physical health services, transit, education and employment. Because of trauma associated with countries of origin, as well as difficulties in accessing employment and social services, [10.1%](#) of newcomer youth experience homelessness.
8. **LGBTQ2S+:** According to Statistics Canada, about [3.3%](#) of the population self-identify as lesbian, gay or bisexual, and [0.25%](#) identify as transgender or non-binary. Other research has found that about [10%](#) of Canada's population self-identifies as LGBTQ2S+. Statistics Canada provided an inclusive question about gender in the 2021 census, partly in order to [fill data gaps](#) for municipalities in relation to services such as housing. However, data on sexuality is still not included in the census. Certainly, the proportion of those publicly identifying as LGBTQ2S+ is [increasing](#) with each generation. Almost [one in three](#) homeless youth self-identify as LGBTQ2S+, and [older LGBTQ2S+](#) individuals and households also face difficulties accessing affordable and culturally safe homes.
9. **People with physical disabilities :** Overall, about [14%](#) of the Canadian population has a mobility-related impairment (including chronic illness) that limits their daily activity, and about [18%](#) of individuals with a disability are in core housing need. However, this overall figure does not do justice to the high incidence of disability within very low income households: about [45%](#) of those who are chronically homeless have a disability. Absence of universal access measures in emergency shelters and low-cost housing has been noted by successive [human rights reports](#).

This problem is [especially acute](#) for larger households, as much family housing is provided in inaccessible townhouses. Accessible transport and support services are also important for this group.

- 10. People with intellectual disabilities :** Between [1-3%](#) of Canadians live with a mild to severe intellectual impairment. There is a national deficit of at least [100,000](#) supportive homes for people with intellectual disabilities, including at least 13,000 people over aged 30 who still live with parents due to absence of other options, and another 10,000 under the age of 65 who have been institutionalized in hospitals or long-term care facilities. Most could live in their own homes with adequate support. There are also a large and growing group of Canadians with dementia, with [25,000](#) new diagnoses each year. Lack of caregiver support and appropriate low-cost housing options mean that many are prematurely hospitalized or placed in long-term care facilities.
- 11. People dealing with psychosocial disabilities:** It is estimated that [4%](#) of Canadians have severe mental health or addictions issues, and almost 50% of these people are homeless or in housing need. As is the case with other households, independent living with adequate supports is the goal of most people with psychosocial disabilities, but there are only about [one tenth](#) of the supportive housing required in Canada.
- 12. Veterans:** The emphasis on veterans as a homelessness priority group in Canada dates from [2019](#). Veterans are a relatively small and well-defined population with clear federal responsibility. The reasoning for this focus appears to be that if the 3,000 or so chronically homeless veterans can find adequate housing, this approach could be scaled up to other groups. Veterans of wars and of service in the Armed Forces constitute [1.7%](#) of the Canadian population and are expected to decline over time. At least [2.2%](#) of the homeless population are veterans, with a higher proportion (5-7%) in some Canadian cities.
- 13. People experiencing homelessness:** A rights-based approach would prioritise people without secure accommodation for affordable housing. While point-in-time counts suggest an annual count of 235,000 people experiencing homelessness each year, or 0.6% of the population, [all current methodologies](#) undercount those living temporarily as a “hidden” homeless person with friends, family or strangers; and residing in precarious or inadequate housing. For these reasons, this report uses a “[housing precarity](#)” measure that counts those living in housing stress, especially households with very low incomes, whether or not they access traditional ‘homelessness’ services. In addition to this need assessment, [a by name list](#) of homelessness households should be maintained on an ongoing basis (updated every month) by municipalities and regional governments, and these households with insecure or no permanent accommodation, including survivors of family violence, should be prioritized for new and acquired social housing.

## Our Methods: Net Loss of Affordable Housing and Trends Over Time

Lastly, most housing need assessments come up with a deficit number that may be accurate for a point in time, but does not include trends in net loss of affordable housing or population growth and change. Given that the purpose of need assessments are to inform housing strategies, and most housing

strategies have a 10- to 20-year period suitable for an infrastructure plan, this means that policies constantly are trying to meet past need, not current need.

Most Canadian cities and communities have been losing affordable homes at [a far greater rate](#) than they are being created, leading to net increase in homelessness and housing stress. This is due to a combination of the [following factors](#):

- decline in the creation of new social housing units over three decades of senior government cutbacks and downloading,
- loss of subsidized housing units due to end of agreements with senior governments dating from the social housing heyday of 1965-85, or repair backlogs caused by inadequate operating funding,
- declining construction of new purpose-built affordable private market rental,
- loss of existing affordable private market rental stock to demolition, conversion to ownership, and use as [short-term rentals](#),
- increases in rents due to failures in rent control, most notably a vacancy exception in most provincial/territorial regimes that do have rent control (i.e. units that were rent controlled can revert to a market rate after the tenant moves, leading to widespread 'renoviction' or removal of tenants for repairs followed by re-renting the unit at a much higher price).

Part of the problem is that there are currently no robust ways to measure the phenomenon at the local level. Most Canadian municipalities do not have [registration of rental properties](#), both purpose-built and 'secondary' units in buildings or sub-let homes, let alone mechanisms to observe changes in unit rents over time. Many [countries](#), including Norway, the Netherlands, Germany, France and Turkey, regulate rent levels based on size and location of homes. In Canada, landlord-tenant law is regulated at the provincial/territorial level, and information on rents, particularly for secondary units, is hard to find. In this report, we test out a relatively easy way to use census and Canadian Housing Survey data to calculate net loss of units at various inflation-adjusted price points.

**Similarly, while it is impossible to forecast trends over the next 10 years with perfect accuracy, it is both possible and necessary to include population projections in housing need assessment.** Many large cities are growing rapidly, due urbanization (movement of people to larger cities) and migration from other countries. Canada's [population is aging](#), household sizes [continue to decline](#), [Indigenous](#) and [new migrant](#) households are both increasing and tend to be larger. All of these phenomena are vital to projecting housing need over the period of a plan.

## What Is a Good Land Assessment?

Several recent international reports have recommended regulatory and land mechanisms that can reduce up to 50% of the cost of new homes. A report produced by [McKinsey](#), international management consultants, prioritizes four key interventions to address the "global affordable housing challenge": (1) low or no cost land in the right locations; (2) reducing construction costs through industrialization of housing; (3) reducing operations and maintenance costs, again through industrial efficiencies; and (4) reducing financing costs. These four measures, they estimate, would allow affordable housing without government subsidy at rents of 30% of household income to moderate income households earning 50-80% of AMI. They recognize that in order to meet the need of very low- and low-income households earning less than 50% of AMI, some form of further construction and/or operating subsidy is necessary. Their first recommendation for governments is to set targets and identify gaps, particularly in relation

to income groups and household sizes, that will guide their decisions. Their next recommendation is to identify well-located land, such as those near transit investments, and retain or purchase it for affordable home construction (Figure 3).



Figure 3. Reducing Housing Costs (source: McKinsey, 2014)

The McKinsey global report calculates that “land cost is often the single biggest factor in improving the economics of affordable housing development”. While it usually comprises between 8 and 23% of total cost, in some highly desirable parts of cities, land can constitute as much as 80% of property cost. A [second](#) recent global review of mechanisms to secure urban affordable housing by the World Economic Forum also concludes that “public land ownership... holds the key to affordability in cities where middle- and lower-income families are unable to compete with corporate investors”. A third recent [international review](#) of urban land policies similarly begins with land acquisition by government as its first recommendation.

What is missing from these cost analyses is a sense of profit margins by private developers. In 2016, a multi-year and multi-government investigation was launched to answer why - despite federal and provincial investment, new forms of zoning, changes to property taxes and rent regulations in BC, and local facilitation of new rental and prevention of existing rental demolition - rental stock had only increased by 5% in the past decade in Metro Vancouver, while rents had skyrocketed by 67%. The conclusion of this [investigation](#) was that contracting with non-profit social housing developers delivered the highest potential cost savings, higher than technological innovation such as wood framing, higher even than free government land. On a two-bedroom apartment, there was a 43% discount through using a non-profit developer, as compared to a 34% cost savings through free land, and a 13% discount through wood rather than concrete framing (Table 2). Other benefits of using non-profit developers include: tenant selection processes that ensure that units go to those most in need; elimination of costs related to marketing the homes; commitment to maximizing on-going affordability beyond the “letter of the law” in housing agreements or covenants, with possibly less cost for monitoring and enforcement than might be needed with private sector owners/managers; and the ability for non-profits to build up a portfolio of owned assets, which permits cross-financing, cross subsidization, and reduced reliance on grants or subsidies.

## Break Even Rents\*

*Break Even is defined as Rent needed to cover Operating Costs, and Mortgage payment (P+I) and Return on Equity (interest only) required to finance Capital Costs**				
**Capital Costs = Construction Cost + Land + Developer's Profit or Fee. Land Cost is sometimes set to zero.				
Capital Cost Scenario:	Break Even Rent with PRIVATE Developer		Break Even Rent with NON-PROFIT	
	Private 1BR	Private 2BR	Non-Profit 1BR	Non-Profit 2BR
Concrete - No Land	\$ 2,234	\$ 2,910	\$ 1,539	\$ 2,002
Concrete - Low Land	\$ 2,418	\$ 3,150	\$ 1,653	\$ 2,151
Concrete - Med Land	\$ 2,693	\$ 3,509	\$ 1,823	\$ 2,374
Concrete - High Land	\$ 2,968	\$ 3,868	\$ 1,994	\$ 2,597
Frame - No Land	\$ 1,941	\$ 2,527	\$ 1,356	\$ 1,765
Frame - Low Land	\$ 2,124	\$ 2,767	\$ 1,470	\$ 1,913
Frame - Med Land	\$ 2,400	\$ 3,126	\$ 1,641	\$ 2,136
Frame - High Land	\$ 2,675	\$ 3,485	\$ 1,812	\$ 2,359

Table 2. Break Even Rents in Capital, Land and Developer Scenarios (source: Coriolis, 2019)

Given these analyses of land and non-profit development savings, a land assessment that identifies current and potential well-located government or other non-profit land that could be used for social homes should be a first priority in addressing housing need. What is meant by 'well-located'?

Aside from access to good transit, there is a considerable literature on the importance of nearby education, health and social services for those who have less mobility. By less mobility, we mean not only people with mobility impairments (which includes those with chronic illnesses affecting strength and flexibility, as well as those with difficulties walking without aid), but also older people, young children, and those without access to private vehicles. The [CMHC](#) recognizes the definition of well-located used in UN 'Right to Housing' guidelines: "housing is not adequate if it is cut off from employment opportunities, health-care services, access to transit, schools, childcare centres and other social facilities, or if located in polluted or dangerous areas."

The CMHC provides a set of ten 'social inclusion proximity' services and amenities it uses in scoring land. In our methods we have combined several of these to derive a 20-point 'score', which can be modified for local contexts:

1. **Public transit** (2-4 points): A public transit station or stop includes both local public transit stop (i.e., usually slow but frequent local-stop service) and rapid transit station for longer commutes (i.e., light rail, express bus, subway, commuter train or ferry).
2. **Health care services** (2-4 points): Licensed physicians, especially walk-in centres that accept patients without appointment and that often have extended office hours, are sometimes called clinics or community health centres. Hospitals with in-patient emergency or clinical services. Pharmacies with retail and prescription drugs.
3. **Child care centre/ School** (2-4 points): A childcare centre is primarily engaged in providing day care services and early childhood education for infants or children. These establishments may care for older children when they are not in school. A publicly funded school is a school that is a part of a system of free public education. While primarily of service to households with children, schools can include adult education classes.
4. **Grocery store (or supermarket)** (3-4 points): an establishment primarily engaged in retailing a general line of food, such as canned, dry and frozen foods; fresh fruits and vegetables; fresh and prepared meats; fish, poultry, dairy products, baked products and snack foods. This does



not include convenience stores or corner stores that offer a limited range of items and food basics.

5. **Community Centre/ Social Services/ Libraries** (3-4 points): A community centre is a place where people from a particular neighbourhood can meet for recreational activities, social events, and/or education classes. A social service organization can provide a range of services, from employment assistance and training to legal services to food resources. A library is an establishment that maintains collections of documents (such as books, journals, newspapers and music) and facilitate the use of such documents (regardless of its physical form and characteristics) as are required to meet the informational, research, educational or recreational need of their users. A public library provides basic services without charge to the general public (i.e., usually local residents).
6. **Neighbourhood Park/ Hockey Rink/ Pool:** (2-4 points) A neighbourhood park is a public park that serves the need of the residents of the neighbourhood within which it is located. Such parks provide places for people to relax and play outdoors, interact with nature, and can also be habitats for plants and animals. Generally, we have excluded 'pocket parks' with less than 1.5 ha in our analysis. Recreational facilities such as sports fields, hockey rinks and pools are included in our analysis.

The maximum distance for well-located services and amenities differs by population served. Neighbourhood parks and playgrounds, according to the City of Vancouver's [High-Density Guidelines](#) for Families with Children, should be no further than 400 metres from homes (a five-minute walk), while hospitals, high schools and rapid transit may be accessible even if they are further away. In our land assessment, we use catchments that focus on existing street networks rather than Euclidean ("as the crow flies") distance, recognizing that highways and poor street lay-out may make pedestrian access dangerous or difficult to navigate.





## PROOF OF CONCEPT: HOUSING NEED AND LAND ASSESSMENT IN KELOWNA, BC

### Introduction to City of Kelowna

The City of Kelowna is located on the traditional, ancestral, unceded territory of the syilx/Okanagan people. It is a moderately-sized city of [143,000 residents](#), the [42<sup>nd</sup>](#) most populous city in Canada. Kelowna is part of the Regional District of Central Okanagan which also includes Peachland, Lake Country, West Kelowna and unincorporated communities on both sides of Okanagan Lake.

Kelowna is known as an innovator in its housing policy, with its [report](#) on *Equity and Inclusion in Housing need Assessment* being cited as best practice by the BC Institute of Planners and by the [CMHC](#). Its 'Wheelhouse' model of housing need (Figure 4) recognizes that people's housing need change as they go through their lives, rather than being a simple linear progression from homelessness to an end point of homeownership. The Wheelhouse also gives greater weight to 'safety net' housing and 'housing with supports' than the traditional 'Housing Continuum' model (Figure 5).

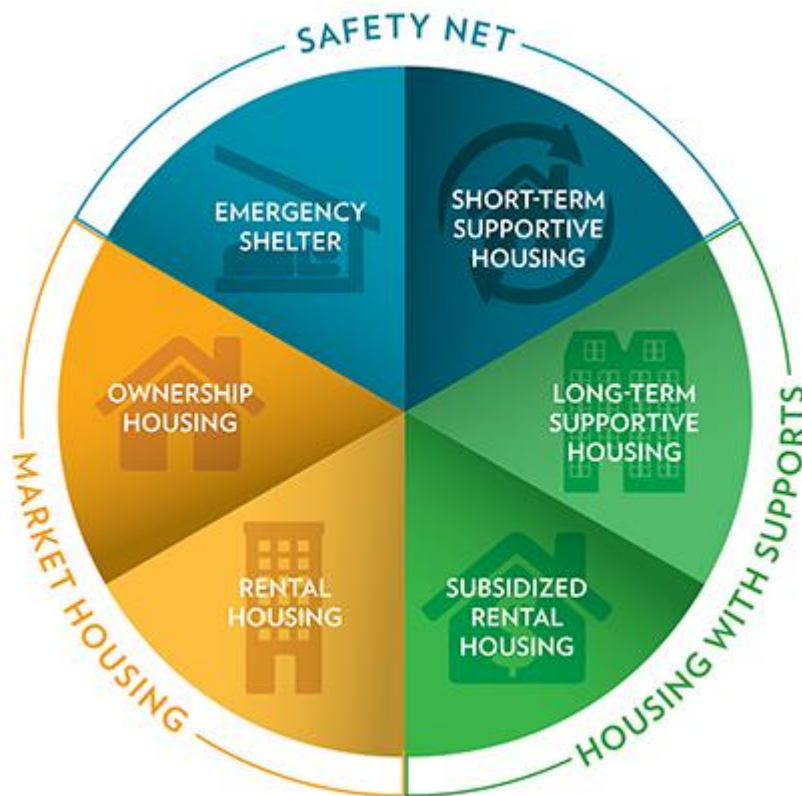


Figure 4. The Housing Wheelhouse (City of Kelowna, 2017)



Figure 5. The Housing Continuum (City of Kelowna, 2017)

The City of Kelowna's most recent Housing Need Assessment was in 2017. The Need Assessment was developed to inform both a five year [Healthy Housing Strategy](#) and a separate [Journey Home](#) strategy focussed on homelessness. Both strategies were adopted by Council in 2018. There has been no separate assessment of suitable government land for social housing, but Kelowna has developed a [Rental Housing Inventory](#) that maps all primary and most secondary rental. Its [Official Plan](#) is currently being revised.

In 2016, the City of Kelowna had:

- 53,900 total housing units
- 50% of total housing is single detached
- An average home price was approximately \$480,000
- 4,800 total primary rental market units purpose built rental homes
- 10,000 total secondary rental market units homes built for ownership that are rented including subdivided homes and condominium units
- 687 total Safety Net (emergency housing) beds
- 4,700 total Housing with Supports units (market and non-market)

Kelowna's population growth rate is extremely high: the overall population grew 192% between 1986 and 2011, which is an average of over 7% per year. The Indigenous growth rate has been one of the highest in Canada: with the population growing 2,189% during that 15-year period. Kelowna has a higher proportion than average of residents over 85 years of age: 20% as compared to the Canadian average of 15.6%.

The 72-page *Housing Need Assessment* has very useful overall information on changes to housing stock, home and rental prices, and previous policies. It also has good disaggregated data on most priority populations, including seniors, youth, single mothers, Indigenous population.

The number of shelter users has been steadily climbing, and is at 1,600 different users per year (90 per night). There is no coordinated registry for social or subsidized housing, so a wait list count was unavailable. There was a waitlist for supportive housing of 789 households.

The report was released before 2016 census data was available. It does not use income categories to calculate deficit, calculate deficit by household size, or calculate loss of affordable housing. It uses agency data to derive housing need for priority populations.

More recently, the *Canada-BC Expert Panel on the Future of Housing Supply and Affordability* included housing need related data for Greater Kelowna (a slightly larger geographic area than the City of Kelowna). Figure 6 shows that the **median multiple** (median home price divided by median income) has increased across BC, with Kelowna still less expensive than Vancouver, Victoria and Abbotsford-Mission. But given that a median multiple of three is considered affordable (that is, affordable homeownership for average-income households), homeownership is increasingly out of reach for all those but higher-income households. The average home price of \$480,000 is only affordable to households earning more than \$160,000, more than twice Kelowna's AMI. Homeownership unaffordability creates more average- and moderate-income demand for rental homes. They in turn can "bid out" low-income households seeking affordable rental.

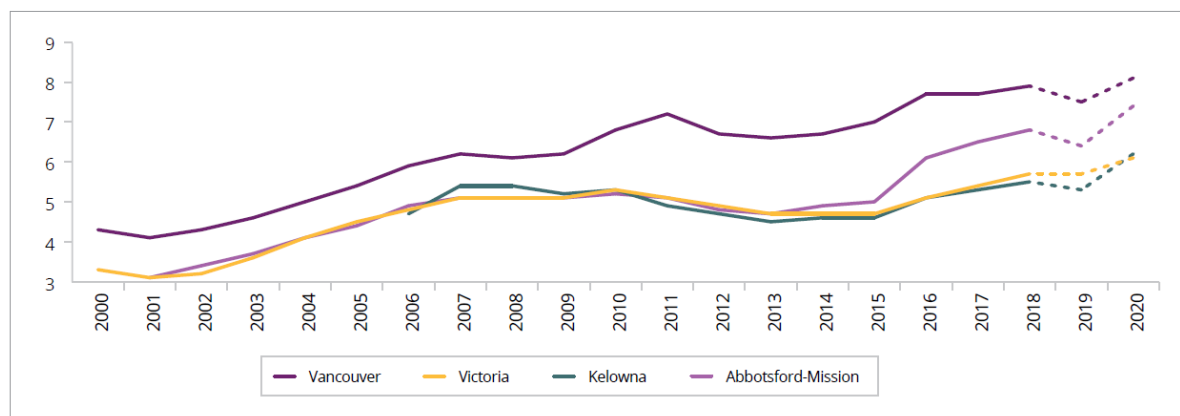


Figure 6. Median House Price Divided by Median Household Income, four largest BC CMAAs (source: BC-Canada Expert Panel, 2021)

The BC-Canada Expert Panel uses different methods from ours to calculate total housing need, based on a UK model. The UK model includes loss of affordable housing, as does our model, and also includes extra homes to increase the vacancy rate, which our model does not. It does not include income categories or household sizes, which our model does. Using this model, Table 3 suggests total

requirements from 2021-26 of 9,030 new homes in Greater Kelowna, a rate of 1,806 new homes per year.

CMA	Household growth projection	Demolitions and conversions	Vacancy allowance	Affordability adjustment	Total requirements	Average annual
Abbotsford-Mission	4,480	800	130	1,170	6,580	1,316
Kelowna	6,400	900	190	1,540	9,030	1,806
Vancouver	87,200	15,500	2,620	31,870	137,190	27,438
Victoria	11,170	700	340	3,570	15,780	3,156

Table 3. Total new housing requirements 2021-2026, four largest BC cities (source: BC-Canada Expert Panel, 2021)

Table 4 shows that the projected new home need for 2021-26 is actually lower than the net rate (construction minus loss) of new homes being produced 2016-20 in Greater Kelowna. Kelowna-area municipalities have doubled housing supply in recent years, in contrast to Victoria and Vancouver CMAs. The problem in Kelowna seems to be “right supply” rather than overall supply.

CMA	2001-05	2006-10	2011-15	2016-20
Abbotsford-Mission	3,802	4,172	2,352	4,955
Kelowna	7,226	9,540	5,069	10,375
Vancouver	60,228	75,291	75,491	94,901
Victoria	7,312	9,684	7,796	13,987

Table 4. Net Change in Housing Supply, four largest CMAs, BC (source: BC-Canada Expert Panel, 2021)

## Sources of data

In order to conduct this need assessment, data was sourced from the 2016 Census. Ideally, need assessments would be updated every five years, as soon as data becomes available (e.g. 2021 census data should become available mid-2022). The 2016 census data included: tenure, household income, household size, dwelling type, and shelter costs. Specific household characteristics related to priority populations included: 65+, Indigenous (aboriginal) status, visible minority, new migrant, disability, and female lone parent households. Census data does not currently include information related to several priority populations, including: sexual orientation, survivors of domestic violence, veteran status, or homelessness. All data was cleaned, organized, and cross tabulated using *Beyond 2020* software before being moved into Microsoft Excel to complete the need assessment calculations.

## Income Categories used and Target Housing Costs

To calculate income categories and target housing costs, the starting point was the Area Median Income (AMI) for Kelowna Census Sub-Division, equating to the City of Kelowna. The AMI before tax income is \$68,627, higher than the Canadian average of \$57,000. Based on this average, income categories were created (Table 4) by dividing the percentage of the AMI and rounding to the nearest \$5,000 increment. This yielded five income categories of very low, low, moderate, average, and high.

After completing the AMI income categories, the next step of the need assessment is to calculate what the minimum and maximum rent a household could afford.

- Step 1: Take the bottom of the range for each category and divide the number by 12. This will yield a monthly total
- Step 2: Repeat this process for the top of the range. Divide by 12 to yield a monthly total.
- Step 3: Multiply both the bottom range and the top range by .30 to yield a minimum and maximum target housing cost per income category

Median household gross Income	\$68,627			
% Threshold	\$ Threshold	Rounded	Max Rent/ Housing Cost	Income Category
<20%	\$13,725	\$15,000	\$375	Very Low
20-50%	\$34,314	\$35,000	\$750	Low
50-80%	\$54,902	\$55,000	\$1,375	Moderate
80-120%	\$82,352	\$80,000	\$2,000	Average
>120%	n/a	n/a	n/a	High

Table 5. Income Categories and Target Rents

To complete the calculations of which percentage of households fall into one of the five income categories a three-step process was implemented;

- Step 1: Determine the total amount of households
- Step 2: Determine the total amount of households in each of the five income categories
- Step 3: Divide the total amount of households by the households in each income category

This process yielded percentage of households in each income category. The proportion of the population by income category is shown below (Figure 7).

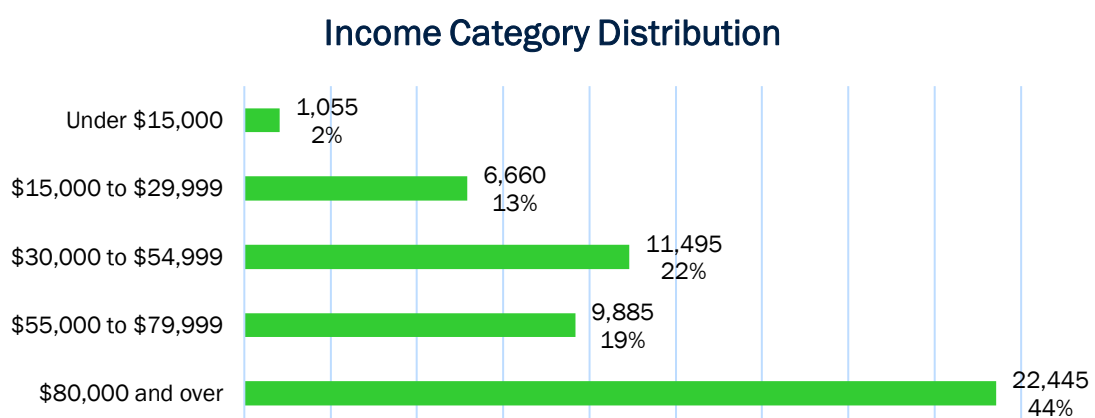


Figure 7. Household Income Categories by Percentage and Household Total

Overall, Kelowna has a lower proportion of very low- and low-income households than the Canadian average. In Canada, a little less than 6% of households earn less than \$15,000, while in Kelowna, only 2% of households fall into that income category. Across Canada, almost 16% of households earn \$15-30,000, while in Kelowna, the proportion is only 13%. At the other end, 44% of Kelowna households



would be considered higher income in this formulation, as compared to the national average of a little over 40%.

## Core Housing Need by Income Category

To calculate deficit of core housing need by AMI income category the following method was implemented:

- Step 1: Divide number of households in each income category by number of households in core housing need to obtain proportion of households in each income category in housing need (Figure 8)

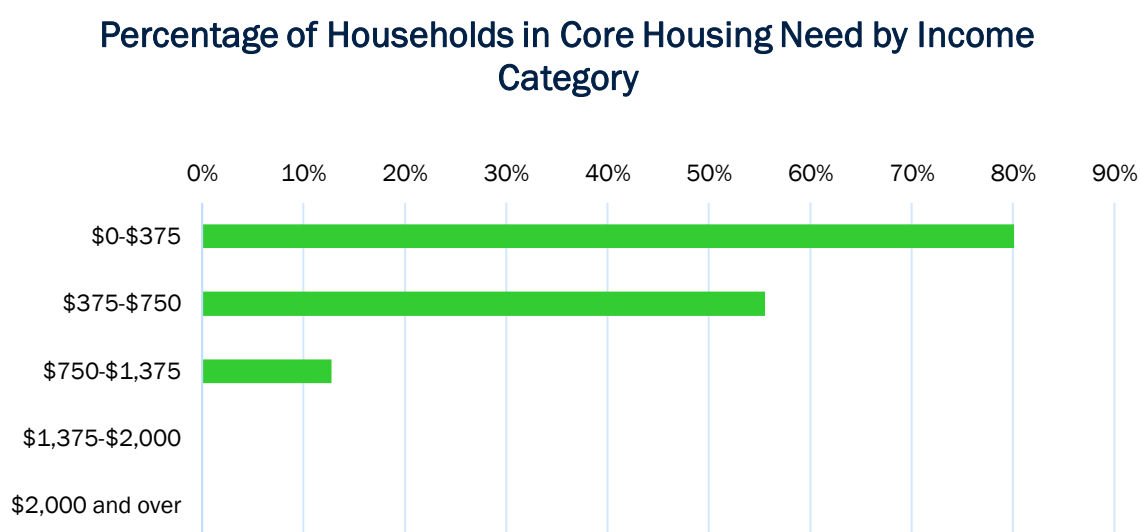


Figure 8. Proportion of households in housing need for each income category

This result suggests that while there is a relatively low number of very low-income households in the City of Kelowna, four in five of those households (720 of 905 households in 2016) are in housing need. There is a much larger cohort of low-income households in the City of Kelowna, and over half of them are in core housing need (2,375 of 4,820 households). A little over 12% of moderate-income households are in core housing need. Referring back to Figure 1, this is the case across Canada: it may be impossible for many moderate- and average-income households to buy a house, but when it comes to the right to adequate housing, governments need to focus on very low- and low-income households in order to address homelessness.

## Core Housing Need Deficit by Income Category and Household Size

To calculate deficit of core housing need by AMI income category the following method was implemented:

- Step 1: Take the number of households in core housing need by income category in 2016 census
- Step 2: Divide the core housing need by household size (1,2,3,4,5+ people)



The purpose of including household size is to obtain a rough estimate of need for larger homes. Note that we were unable to use National Occupancy Standards (e.g. ascertain whether two person households were partners or whether children under ten years of age could share a bedroom). Also, many households might have people undertaking paid work at home (and requiring an extra room to work in) or have part-custody of children (and require an extra bedroom for them).

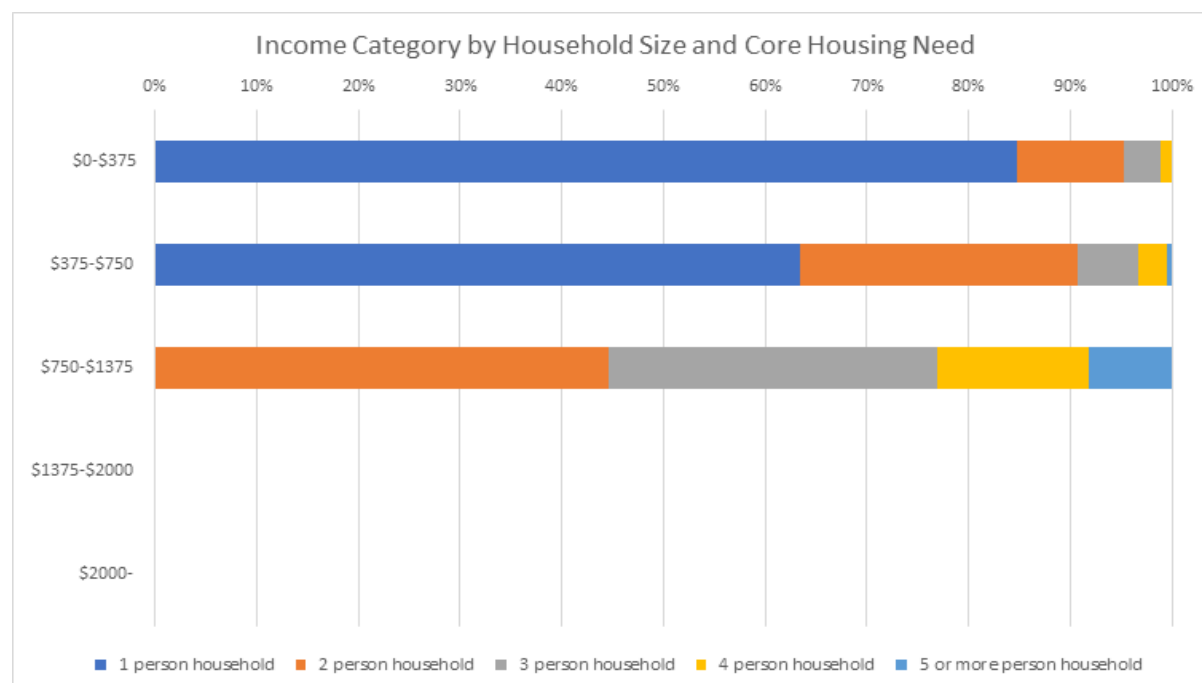


Figure 9. Core Housing Need by Household Size X Income Category

Although the majority of very-low-income households in housing need are single person households, there are still the need for larger (2+) bedroom units for about 15% of those with a maximum affordable rent of \$375. When it comes to the deficit of homes available at \$375 to \$750 for low-income households, almost a third will be need to be two bedrooms or more. The majority of deficit at the \$750 to \$1,375 range will need to be 2+ bedroom homes.

## Core Housing Need by Priority Population

To derive core housing need by priority population, the steps were:

- Step 1: Identify individuals within priority population in census (e.g. self-identify as “Aboriginal” in 2016 census)
- Step 2: Assume that the presence of an individual in a household has an influence on the household’s housing need (e.g. the presence of a household member with a mobility impairment means the entire household need to live in an accessible home)
- Step 3: Divide total proportion of priority populations within households by those who are in core housing need to obtain percentage of each priority population in core housing need

We were unable to derive need by all priority populations identified by the CMHC, including veterans, LGBTQI+ and survivors of domestic violence.

As discussed above, many households may have members in multiple priority categories (e.g. a female Indigenous single parent with a child who has a disability). With these limitations in mind, the data on housing need by priority population (Figure 10) does suggest housing strategy directions.

### Core Housing Need Percentage by Priority Population

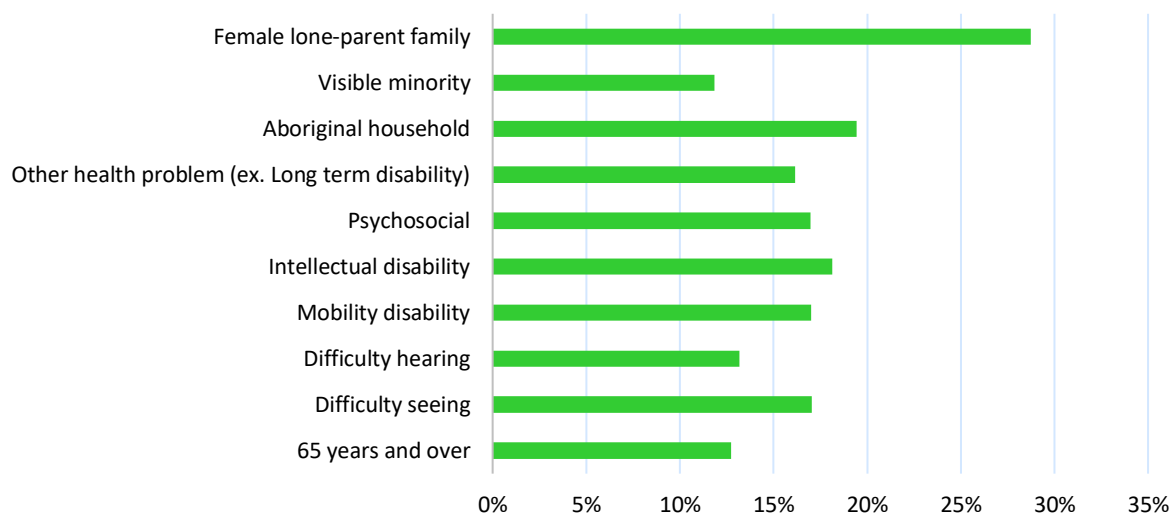


Figure 10. Housing Need by Priority Population

Close to 30% of single mothers in Kelowna are in housing need. The federal government has a sub-target of 25% subsidized housing for women-led households, but this may be insufficient in the Kelowna context. Almost 20% of Indigenous households are in housing need. This suggests the need for a separately funded Indigenous strategy in collaboration with local Indigenous Nations and communities. Accessible housing is necessary for those households who have mobility impairments but also those with chronic diseases (included in “other health problems”). Many people as they age will require accessible housing with social supports as well. This suggests a need for increased homes with universal access (which can be accomplished in new build or through retrofit).

### Trends in Loss of Affordable Housing

To calculate trends in loss of affordable housing, the steps were:

- Step 1: Adjust “Gross Rent” in 2006 to 2016 \$ using the Bank of Canada [inflation calculator](#)
- Step 2: Aggregate households according to 2006 “Gross Rent” ranges to align with 2016 “Shelter Costs” for Rental Tenure Dwellings
- Step 3: Subtract the number of renters households in 2006 from the number of renter households in 2016 to estimate change in dwellings renting at various price points
- Step 4: Subtract the homes available at rent ranges in 2006 from the homes available for the increased number of renters in 2016 to obtain the net change in available units from 2006 to 2016.
- Step 5: Project this rate of change to 2026 (if policy settings remain as Business as Usual)

There are significant data limitations associated with the calculations for change in affordable rental housing. The main limitation is a lack of publicly available census data for 2006 at the CSD level. As a result, the calculations are completed using CMA data (Greater Kelowna, not City of Kelowna). In

addition, due to the differences in rent ranges provided in the census, the rent categories do not directly align with the income categories used for other sections of this report. Further, inflation-adjusted Gross Rent ranges for 2006 do not align perfectly with 2016 Rental Tenure Shelter Cost ranges. In each range, 2006 Gross Rent ranges are slightly lower than 2016 Shelter Costs, making it likely that some dwellings should be counted in the next higher rent range. Finally, the census definition of Gross Rent in 2006 differs from Shelter Costs in 2016, with Shelter Costs taking utilities into account. Regardless of these limitations, we conclude that Greater Kelowna has not seen a net loss of affordable rental dwellings.

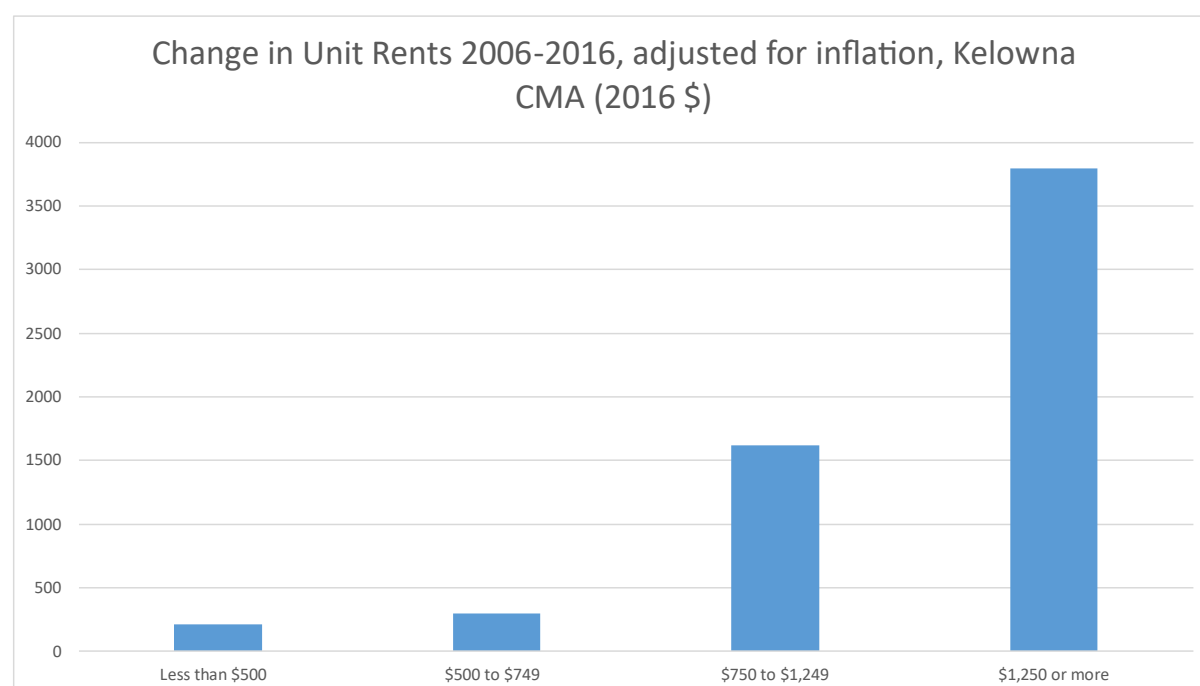


Figure 11. Net change in Affordable Housing in Greater Kelowna, 2006-16

The data on net change in affordable homes provides insights into the unusual housing market for Greater Kelowna. Kelowna, compared to many other Canadian CMAs, has done an excellent job in expanding and protecting very low cost and low-cost housing. From 2006-2016 there was a net gain in affordable housing, albeit one that did not meet all the needs of very low- and low-income homes. Greater Kelowna saw a net gain of approximately 200 rental dwellings with rents under \$500, and approximately 300 dwellings with rents between \$500-\$749. However, most net units added to the rental supply only met the needs of moderate, average, and higher income households, pointing to the need to focus on social rather than market rental housing provision. For this reason, our final housing need projection leaves out net loss of affordable housing in the Kelowna prototype.

## Projected Need Over the Next 10 years

Most housing need reports do not include housing need for the next 10 years by projecting population trends from the previous 10 years, divided by income category/ maximum housing charge. In addition, demographic trends such as aging population or increased Indigenous population (see above) should be projected, using trends from the past 10 years.

The method for deriving projected net household change 2016 to 2026 is:

- Step 1: Provide total households by income category in 2006

- Step 2: Provide total households by income category in 2016
- Step 3: Calculate rate of population change over 10 years by subtracting 2016 households by 2006 households
- Step 4: Project this household growth (or decrease) to 2026, assuming Business as Usual policy and economic settings
- Step 5: If household growth is positive, assume 100% need for new homes to meet increased household growth (some new households will buy existing homes but others currently living in existing homes will move to new homes in Kelowna)

Figure 12 shows the projected growth in households 2016-2026

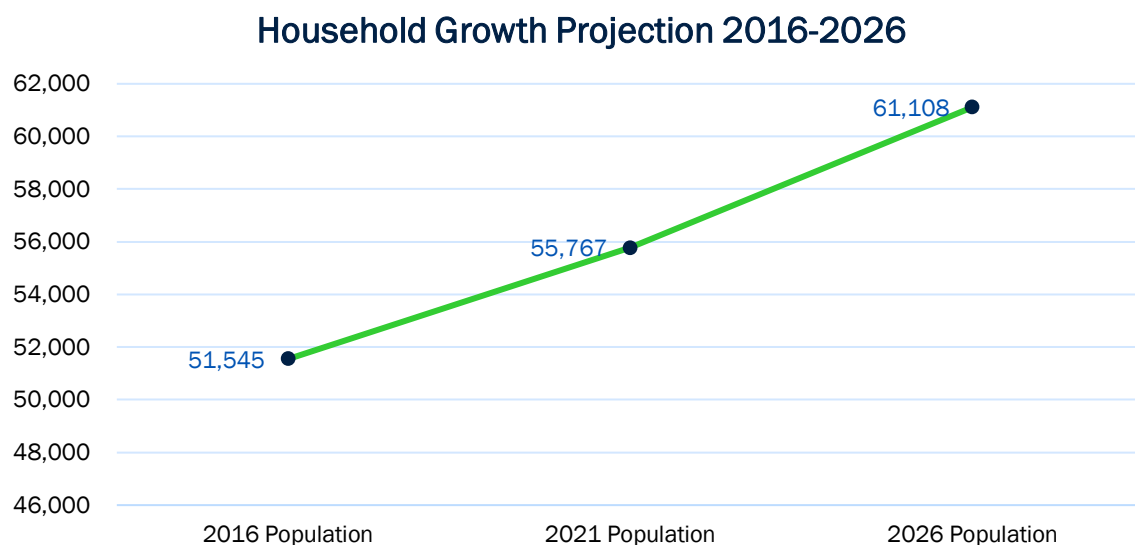


Figure 12. Household Growth Projection 2016-26

Figure 13. depicts the population change by age cohort from 2006-2016 for Kelowna. Of particular interest is the growth in individuals aged 25-34 in all income categories who are in prime childbearing years and who may need larger homes if they have children. Similarly, the aging population, particularly in the 85+ category, suggests the need for an emphasis on housing with supports, such as assisted living and long-term care.

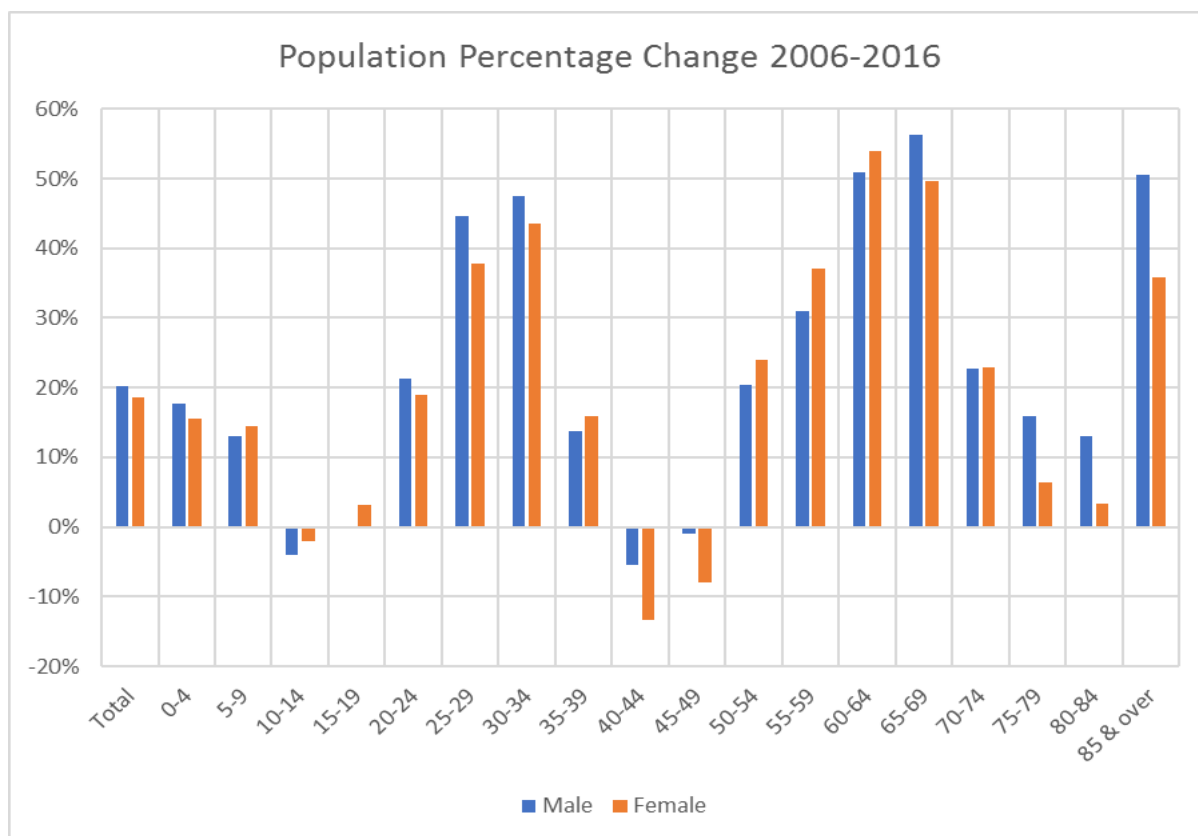


Figure 13. Population change by 5 year increments

Figure 14 shows population projections for Indigenous people, with 2006-16 population projections extended to 2026. Again, this rapid growth reinforces the need for an Indigenous rights-compliant separate strategy for culturally safe housing.

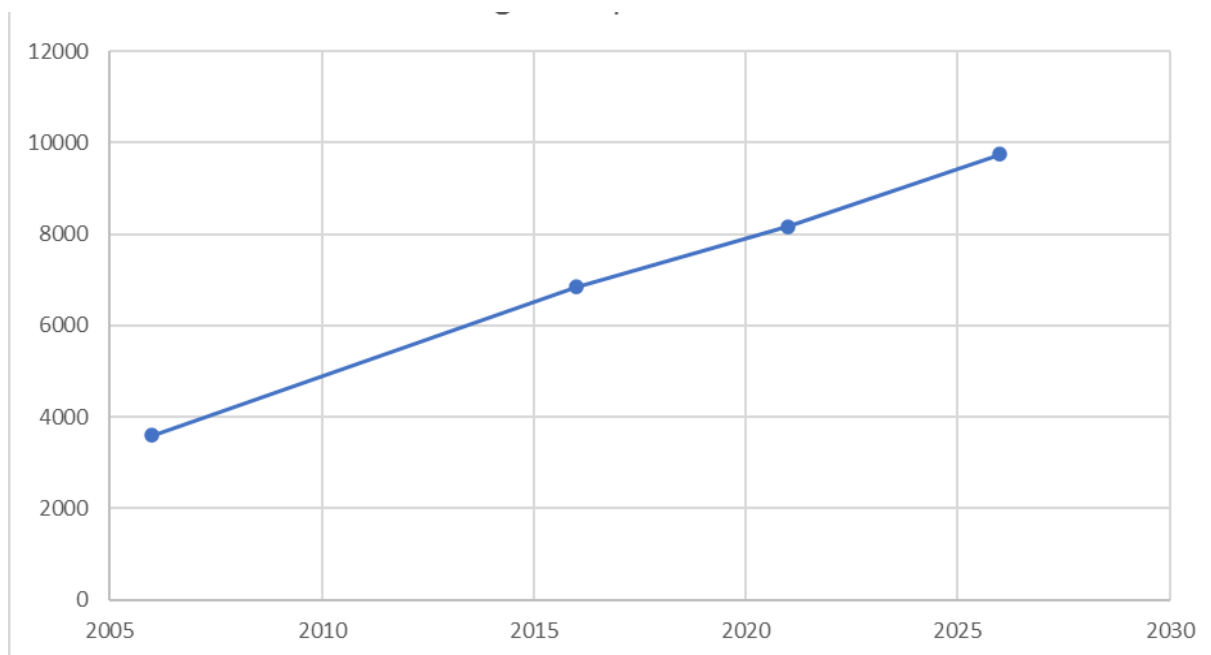


Figure 14. Population projections, Indigenous people



## Total Projected Housing Need Over the Period 2016-2026

To calculate the total amount of homes needed for all households by 2026 (Figure 15 and Table 6), the following method has been applied:

- Step 1: Apply the deficit- in this case the total amount of households in 2016 in core housing need, divided by income category and household size
- Step 2: Add the net change in affordable housing numbers (new renters in each income category minus new units in each income category) from 2006-2016, projected forward in a BAU scenario to 2026
- Step 3: Add the projected households in 2026 by income category to the 2016 deficit and the net change in affordable housing

Results from these calculations are shown in Figure 15 and Table 6.

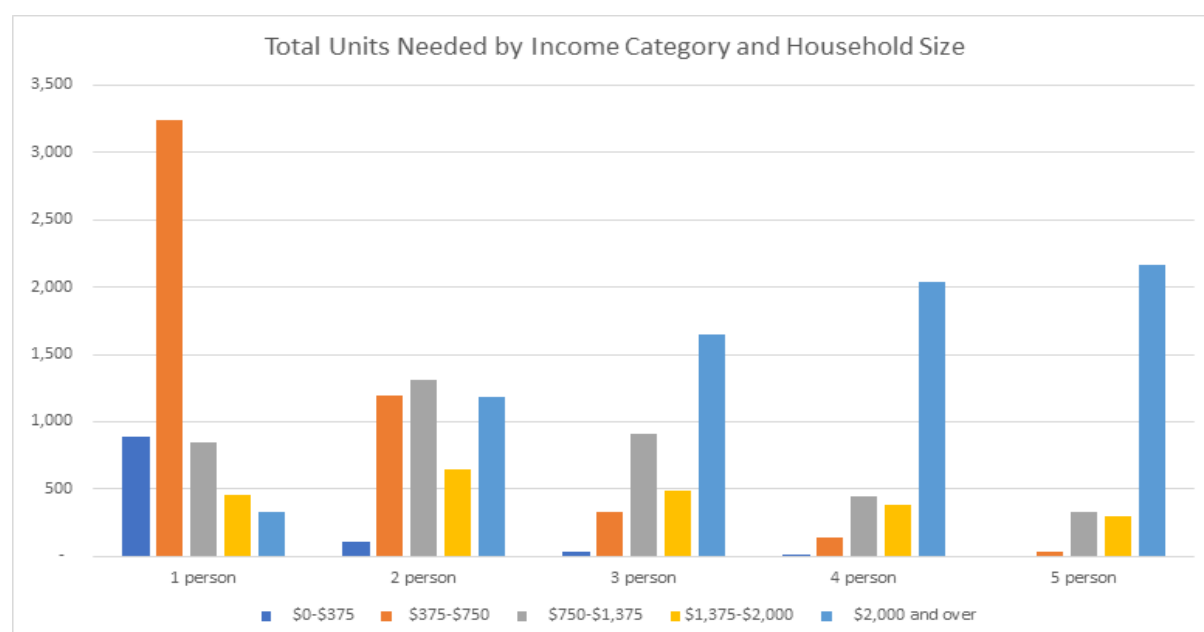


Figure 15. Total Housing Need by Income Category and Household Size, 2016-26

	1 br	2 br	3br	4+ br	TOTAL
<\$375	888	105	39	14	1,047 (5.3%)
\$375-750	3,239	1,194	332	181	4,945 (25.4%)
\$751-1,375	848	1,312	912	774	3,846 (19.7%)
\$1,376-\$2,000	454	643	492	680	2,268 (11.6%)
>\$2,000	327	1,189	1,647	4,204	7,367 (37.8%)
TOTAL	5,756	4,442	3,422	5,854	19,473

Table 6. Total Housing Need by Income Category and Household Size, 2016-26

Overall supply totals are roughly in line with current housing production in Kelowna as well as overall housing need as generated by the Canada-BC expert panel need assessment (Tables 3 and 4). One key difference is a focus on price points: the need for a little over 5% of the homes to be affordable at rents of \$375 or less, and a further 25% to be affordable at rents of \$750 or less. Another key difference is a focus on number of bedrooms: at least 30% of new social homes will need to be 2+ bedrooms and this is also true for rent-regulated private rental homes.

This scale of production for homes to meet the needs of very low- and low-income households will not be possible without: (1) use of public and non-profit land for social housing; (2) scaling up social housing production, which can be supported through preferential land and zoning mechanisms, expedited approvals (ideally through a designated “affordable housing concierge” on staff) as well as deferring development charges and property taxes. It will also need support from provincial and federal governments in the form of construction grants and low interest loans, and shelter allowances for very-low and low-income households layered on social housing. Finally, social supports for all income groups (but particularly very low- and low-income households) will need to be scaled up by provincial government.

Inclusionary zoning (governing number of bedrooms as well as price points), rental only zoning, and a general review of zoning bylaws to increase densities in well located land will help meet needs of moderate- and average-income households. Moderate income households might also be interested in cross-subsidizing co-ops and other forms of social housing. Housing targets using a “rule of thirds” – one third social, one third rent-regulated private, and one third market private – would make sense for the City of Kelowna going forward.

## Land Assessment- Methods and Sources of Data

The land assessment for Kelowna, B.C. is based on the [Housing Access Rating Tool](#) (an earlier version of HART) method developed in Melbourne Australia in 2018 and the social inclusion guidelines developed by the [CMHC](#) in 2020 (Table 7). It has been modified to fit the City of Kelowna’s context (slightly greater weight to health services as there is a large seniors’ population, slightly lower score for public transit) and to work with existing data holdings and the data holdings of the BC government.

Amenity	Critical Distance	Walking	Weight
Childcare and primary schools	500 m		2
Middle and Secondary schools	1500 m		2
Healthcare centres/primary physicians/pharmacies	care 500 m		4
Parks	500 m		3
Grocery stores	1000 m		4
Public transit bus stops	500 m		3
Libraries	1500 m		1
Recreation centers.	1500 m		1
Total Score			20

Table 7. Amenity/Service Scoring Tool for Kelowna

The aim of the land assessment is to find well-located public and/or non-profit land in the City of Kelowna, near which amenities and services such as bus stops, grocery stores, child care centres are easily accessible. Land is scored on a 20-point system where high values represent parcels with good access to amenities and that could be suitable for development and/or re-development for social housing. Parkland and heavily polluted land, or land in floodplains, have been excluded. As is the case with the housing need assessment, we aimed to provide an easy-to-use, replicable, and comparable tool that can be used in a range of urban and regional contexts.

All data used in the assessment was acquired either directly from the City of Kelowna or from the City of Kelowna [Open Data](#) catalogue, the [iMapBC](#) website, and [BC Transit Open Data](#).

Well-located land depends on how far a given amenity or service is from a home. Those distances are calculated along a network of streets, active transportation routes, lanes and pathways. Because pedestrian access is the cheapest, easiest and most environmentally sustainable form of travel, a multimodal network was created that included all walkable streets, active transportation paths, lanes and walkways. Then, from each of the amenities listed in Table 6, the walking network distance from the parcel to the amenity was calculated using a sigmoidal distance weighting function (See supplemental methodological document). This sigmoidal function was applied to remove the hard thresholds used in the Melbourne study. For example, at distances greater than any of the critical walking distances in Table 6, there should be a rapid distance decay in the assigned weight, such that, within a couple hundred meters beyond the critical walking distance, the weights assigned to such a distant parcel are zero. By using this new approach, a parcel 10 meters beyond the critical walking distance for a given amenity will still receive nearly full weight but one an additional 200 m away would receive near zero weight.

## Findings: Well-Located Public and Non-profit Land in Kelowna

Of the 61,013 land parcels in Kelowna, we found 230 well-located government or non-profit land parcels (Figure 16). A well-located parcel is one that scored greater than 10/20 for access to amenities. Most well-located land contains existing buildings (< four storeys) that are owned by the municipality of Kelowna. Places of worship (referred to as Churches for simplicity), non-profits and subsidized rentals were included in the analysis of well-located land parcels. Many of the highest scoring parcels contain those ownership types.

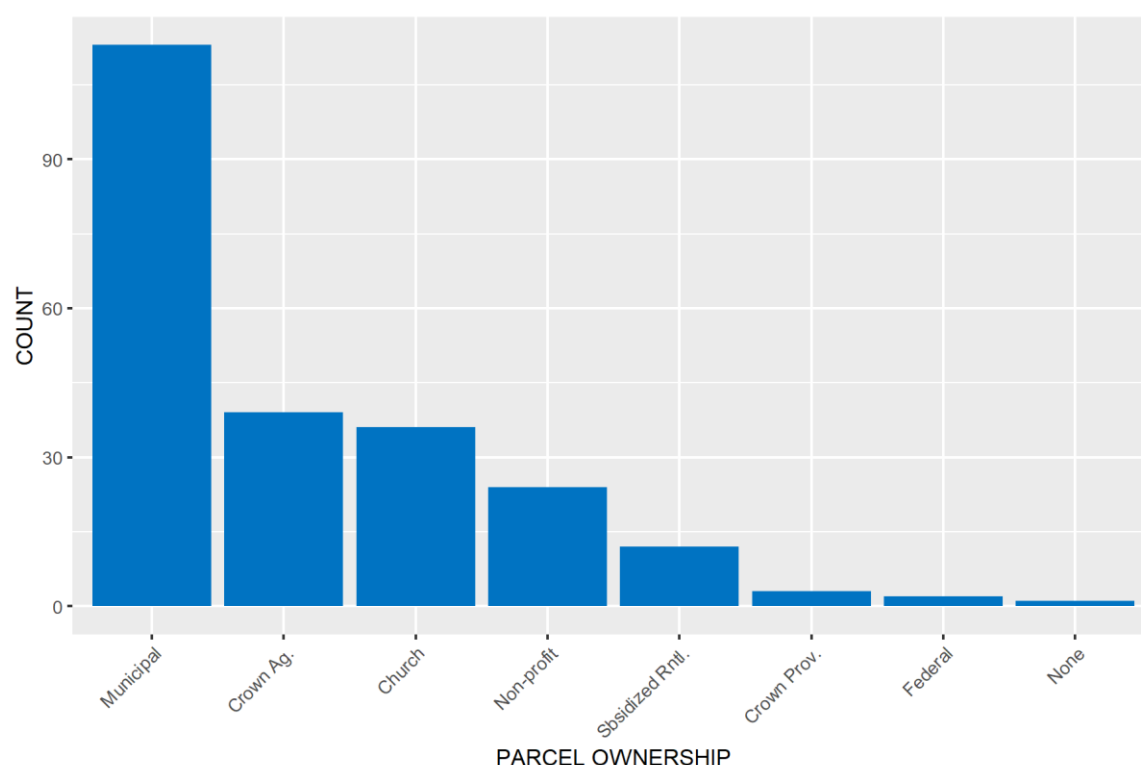


Figure 16. Absolute frequency of parcel ownership of the 230 well-located parcels in Kelowna.

The spatial distribution of the 230 well-located parcels and their scores are high near the central business district of Kelowna, closest to the waterfront, and along the major roads going into that region as well as some residential areas to the north, south, and east (Figure 17).

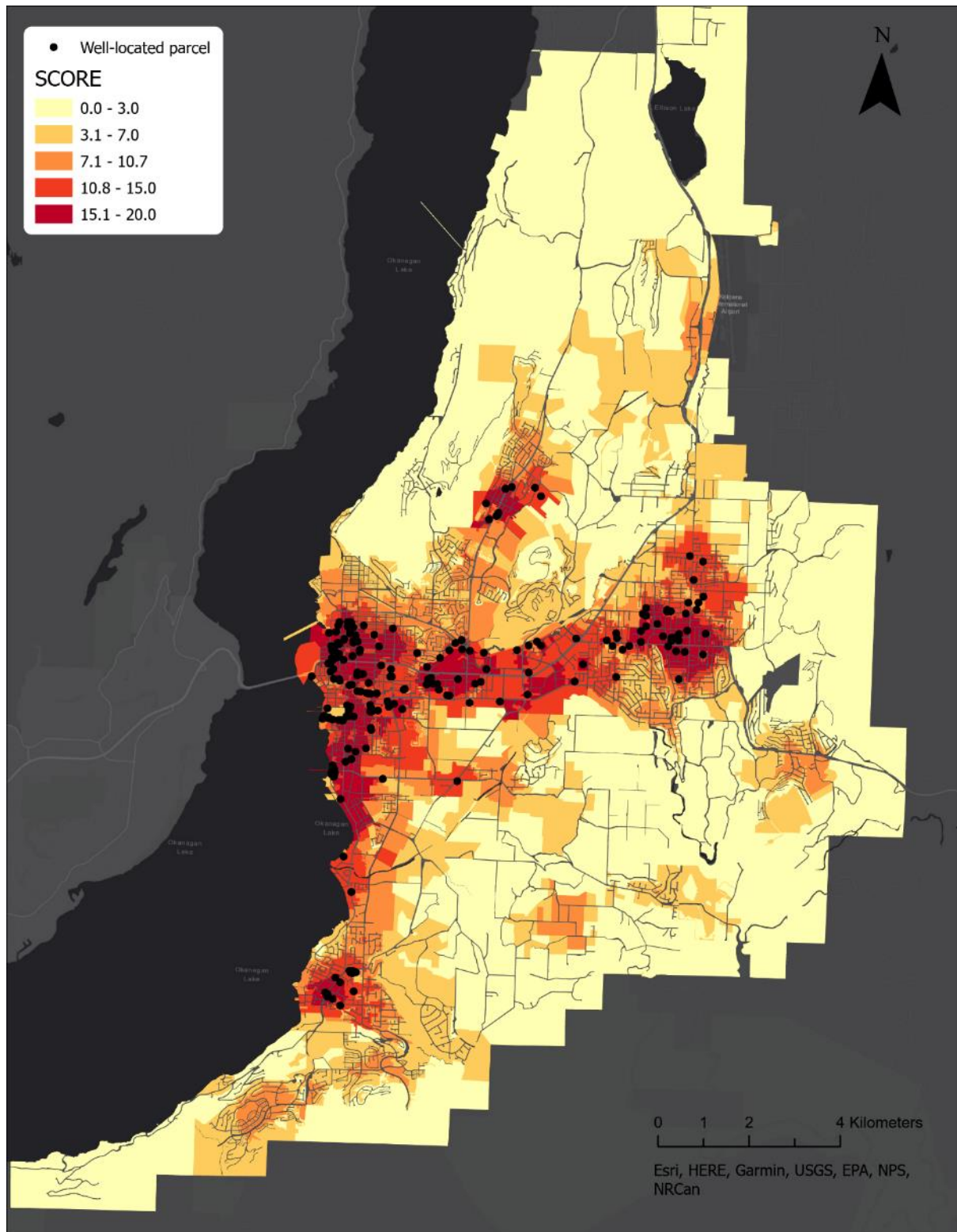


Figure 17. Locations of well-located parcels in Kelowna and their scores.

The majority of the 230 well-located parcels are found along the east-west highway to the central business district. These 230 parcels have a total of 133 ha of potentially well-located public and non-profit land.

All of the well-located parcels were ranked from 1 to 230 by their amenity scores. A number of examples of how these parcels looked were retrieved from Google Street View and are provided in the methodological document. For illustration, a selection from the top 5 ranked parcels are shown in Figure 18. The highest scoring candidate is a municipally owned single story building near the Lion's Park.



Figure 18. Selected street-view images of parcels within the top four locations

The results are in the form of a set of maps and a table of the 230 well-located sites. The maps and table provide information on the parcel, including the rank, score, ownership, full address and the parcel's area. For the sake of brevity, Table 8 only includes the top 20 ranked locations.

RANK	SCORE	STORYS	NEW OWNER	ADDRESS	AREA m <sup>2</sup>
1	20	2	MUNICIPAL	155 Gray Rd	1927
2	20	2	MUNICIPAL	285 Gray Rd	879
3	20	3	CHURCHES OR BIBLE SCHOOLS	250 Gibbs Rd W	5991
4	20	2	SUBSIDIZED RENTAL	720 Houghton Rd	5895
5	19	2	SUBSIDIZED RENTAL	799 Houghton Rd	6105
6	19	0	MUNICIPAL	4611 Lakeshore Rd	994
7	19	3	MUNICIPAL	250 Hwy 33 W	7348
8	19	0	MUNICIPAL	499 Cascia Dr	934
9	18	3	CROWN PROVINCIAL	405 Hwy 33 W	1251
10	18	0	MUNICIPAL	636 Rose Ave	630
11	18	0	MUNICIPAL	561 McKay Ave	2162



12	18	0	MUNICIPAL	2292 Speer St	583
13	18	1	CROWN AGENCY	480 Christleton Ave	711
14	18	0	MUNICIPAL	2291 Pandosy St	503
15	18	2	MUNICIPAL	657 Raymer Ave	18825
16	18	3	NON-PROFIT SOCIETY	123 Franklyn Rd	4040
17	18	3	NON-PROFIT SOCIETY	123 Franklyn Rd	4040
18	18	1	CROWN AGENCY	2264 Speer St	606
19	18	2	CROWN AGENCY	2735 Richter St	975
20	18	2	CROWN AGENCY	462 Christleton Ave	920

Table 8. 20 Locationally top-ranked sites for social housing, Kelowna

The highest ranked parcels (Figure 20) tend to have large parking lots. For instance, the first ranked parcel (1 on Figure 20) has a single storey building and a parking lot.

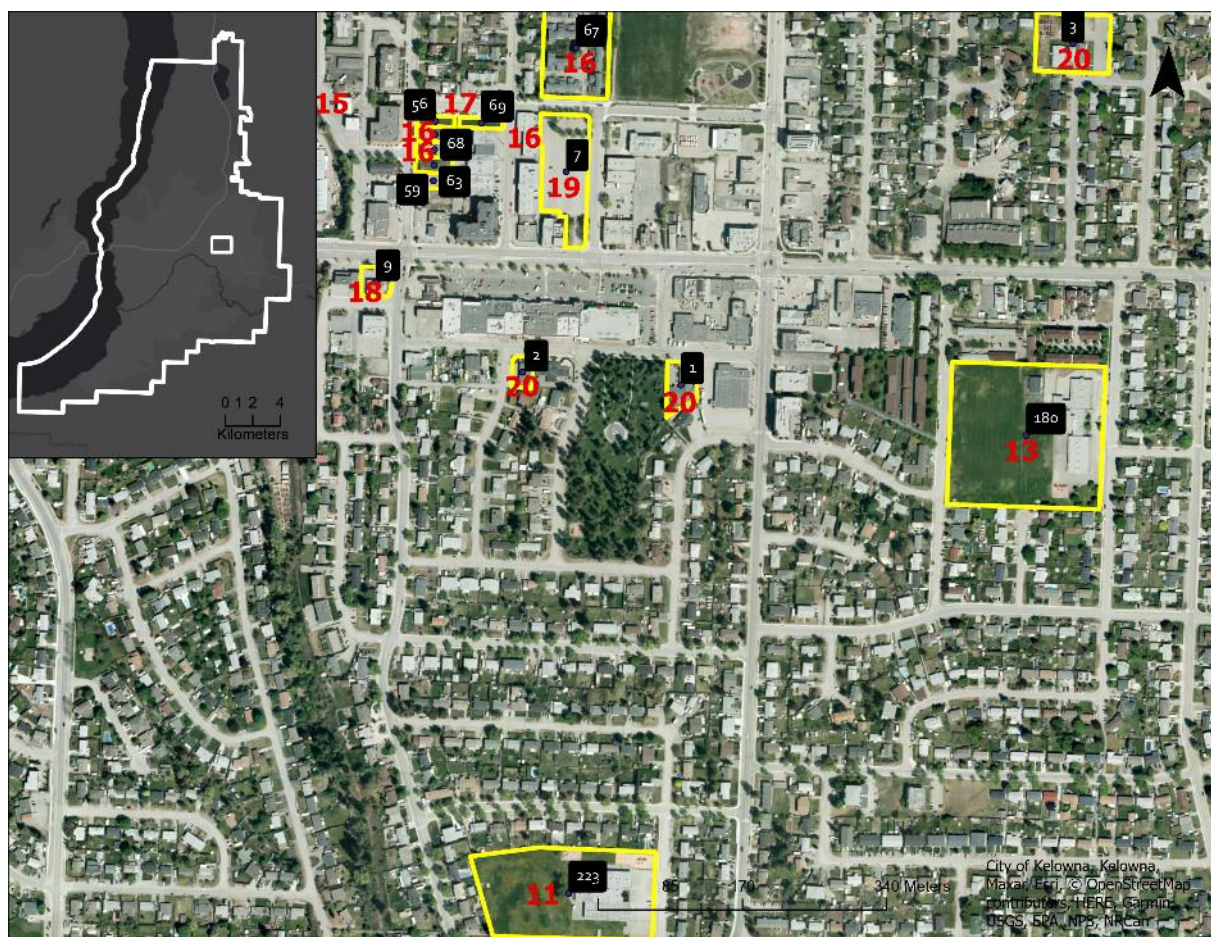


Figure 19.: Examples of high-ranked sites. The white numbers in black callouts are the rank corresponding to Table 8.

## Estimating Yield of Non-Profit Land

To estimate housing yield, the Melbourne [HART](#) method was used (Table 9) :

Site Area (m2)	ha	Density	Number of units
----------------	----	---------	-----------------

<b>25-700</b>	2.6	100	260
<b>700-1500</b>	6.27	171 (for 3 story walk-up apartments)	1072
<b>&gt;1500</b>	124	267 (for 5 story apartment buildings)	33,288
<b>Total units</b>			<b>34620</b>

Table 9. Simplified method for calculating yield (source: Palm, Raynor and Whitzman, [2018](#))

Note that this is a very conservative height limit, more appropriate for residential neighbourhoods than city centres. This modelling assumes rezoning these sites as part of an Official Plan amendment.

There is the potential, using every site, for approximately 34,620 social housing units to be produced in Kelowna. Within the total area, approximately, 27 ha are lazy land with no structures, many of which are parking lots, with 93% of those parcels are owned by the City of Kelowna. A further 4.9 ha of land contain one storey buildings owned by the province or the City of Kelowna, the air above which could be utilized for social housing initiatives. The remaining land 101 ha are mostly owned by the municipality and other levels of government as well as non-profits (subsidized housing, churches, non-profit societies).



# NATIONAL SURVEY ON NEED AND LAND ASSESSMENT READINESS

## Methods

The goal of the HART Survey was to understand the experiences and requirements of planners, politicians, and housing providers in relation to housing need and land assessment, in order to inform the further development of HART. The survey was targeted to a variety of professionals involved in housing, including:

- Planners from local, provincial/ territorial, federal, and First Nations governments
- Political leaders from local, provincial/ territorial, federal, and First Nations governments
- Staff from social and affordable housing providers
- Staff from other organizations that conduct housing need assessments (e.g. consultants that conduct housing need or land assessments for government entities)

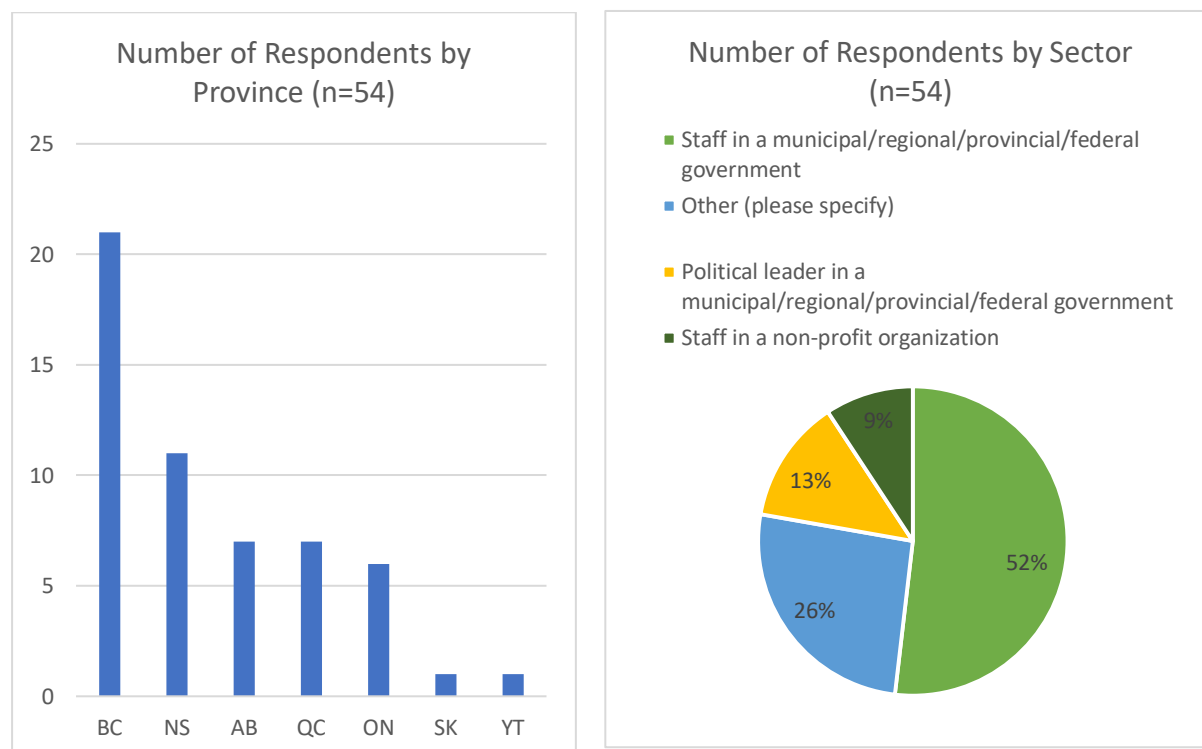
The HART survey was developed and published on Qualtrics survey platform, and available throughout the month of June 2021. The survey was accessible through an anonymous link, which was shared on the Housing Research Collaborative website and social media, as well as distributed to partners in local government and affordable housing across Canada via email. Some also shared the survey with additional contacts through their newsletters or social media. The survey questions varied depending whether the respondents' organization had completed a need and/or land assessment in the past ten years or not. Those who had completed one in recent years were given extra questions regarding the method they used in their assessments.

## Respondents

The HART Survey had a total of 55 respondents. Just under half (21) of those respondents belonged to governments or housing providers located in British Columbia. There were a significant number of responses from Nova Scotia, Alberta, Quebec, and Ontario, as well as one each from Saskatchewan



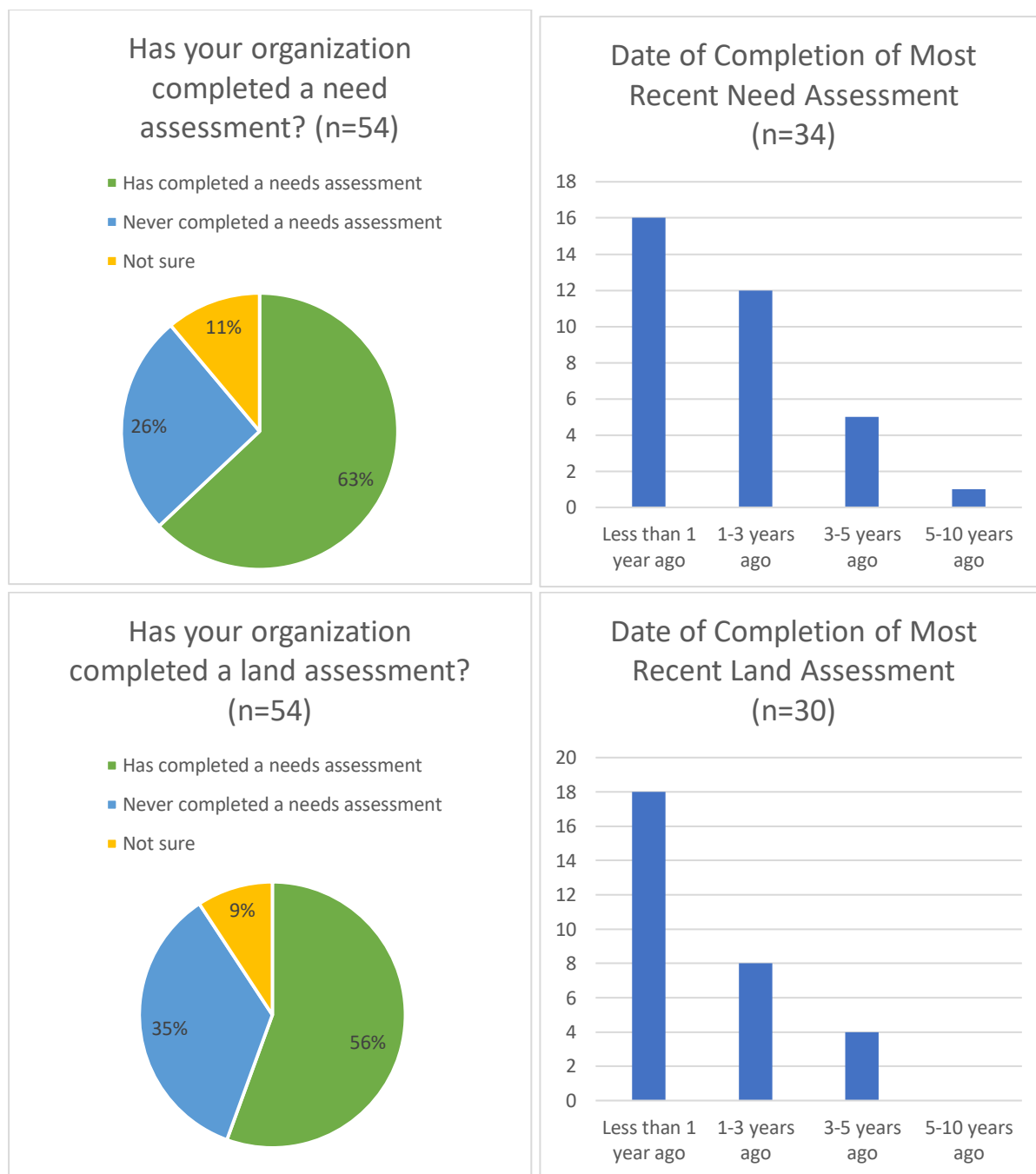
and the Yukon Territories. A little over half (52%) of respondents worked as a staff in a municipal, provincial, or federal government organization. The respondents in this category came from a diverse range of governments, ranging from towns with a population of less than 10,000 to three of Canada's six most populous cities. Nine per cent (9%) worked as staff for a non-profit organization and 13% were political leaders in a municipal, regional, or federal government organization (Figures 20 and 21).



Figures 20 and 21. Respondents by Province and by Sector

## Experience in Assessment

The HART Survey included questions to understand whether respondents' organizations had conducted either a need assessment or land assessment in the past, and if so, how long ago they last completed one. Sixty-three per cent (63%) of respondents reported having completed a need assessment in the last 10 years, while slightly less (56%) reported having completed a land assessment in the last 10 years. Of those who had completed one, many of them had completed their last need and land assessment in the past year, and the majority had completed the last one within the last three years.



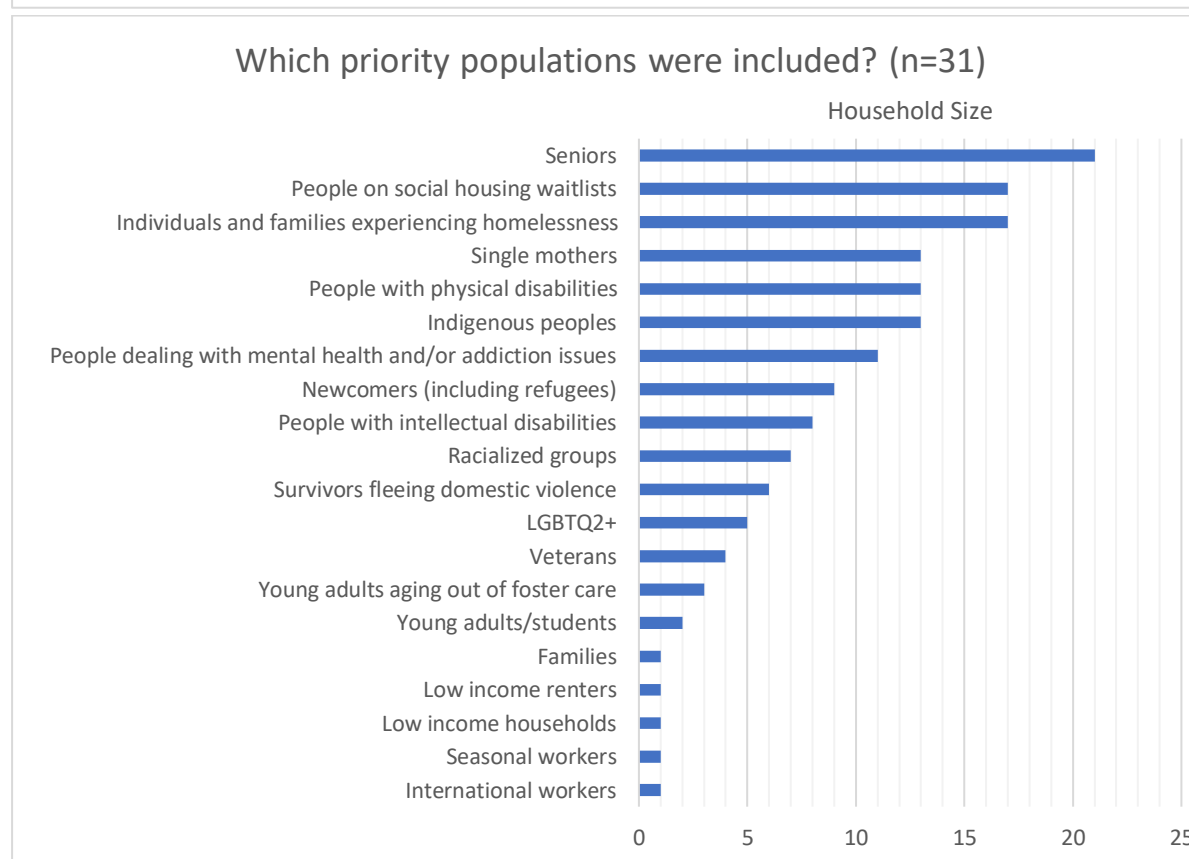
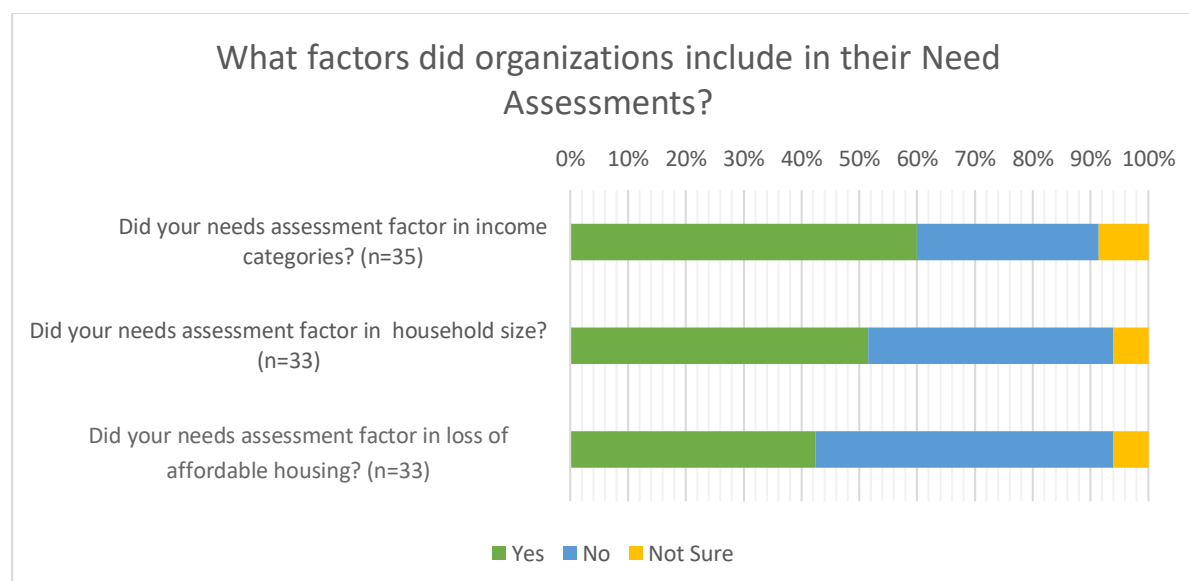
Figures 22-25. Experience in Housing Need and Land Assessment

## Need Assessment Methods

The HART Survey included several questions regarding the method that organizations have used in their need assessments, particularly regarding the use of income categories, household size, loss of affordable housing and priority populations. Sixty per cent (60%) of respondents reported that their organization used income categories in some form in their need assessment, 52% of respondents reported that their need assessment factored in household size, and 44% reported that it factored in the loss of affordable housing. The most common priority populations that organizations included as a focus on their need assessments were seniors (21 organizations), people on social housing waitlists (17 respondents), and individuals and families experiencing homelessness (17 organizations). Fewer



than 10 respondents reported the inclusion of newcomers, racialized community members, veterans, LGBTQ2+ populations, and many other priority groups.



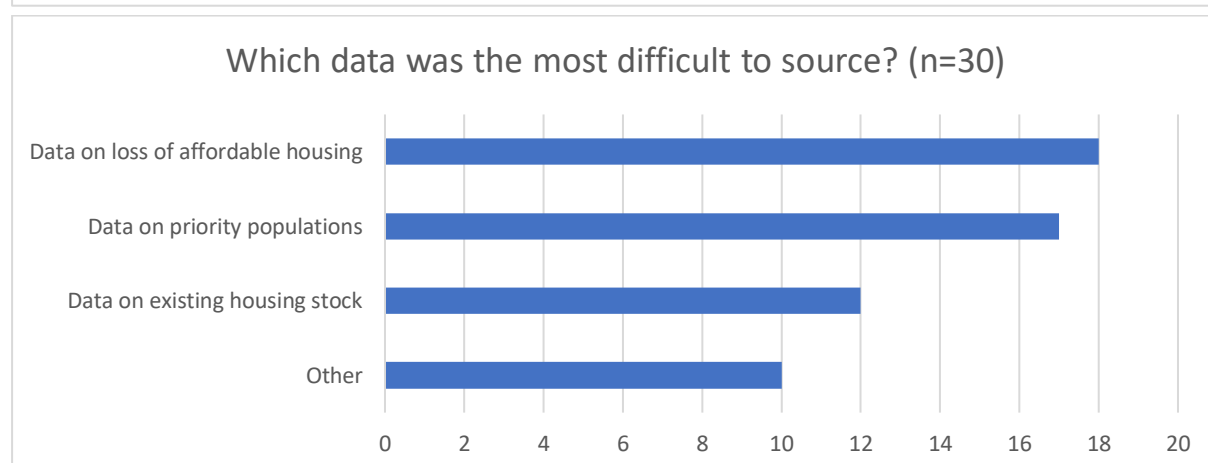
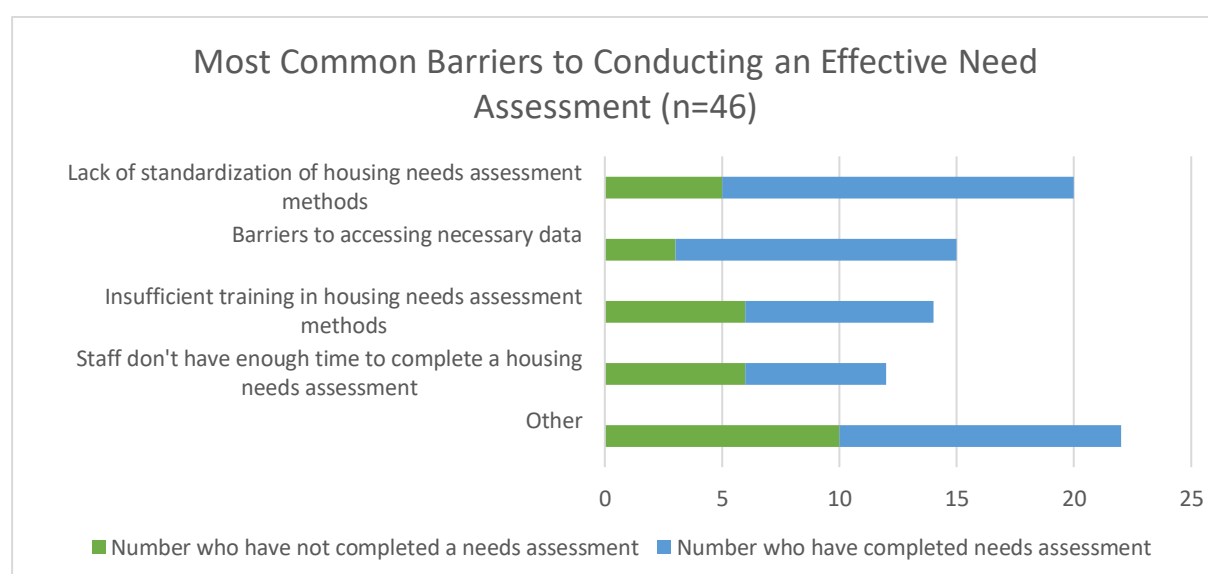
Figures 26-27. Inclusion of Income Categories, Loss of Affordable Housing, and Priority Populations

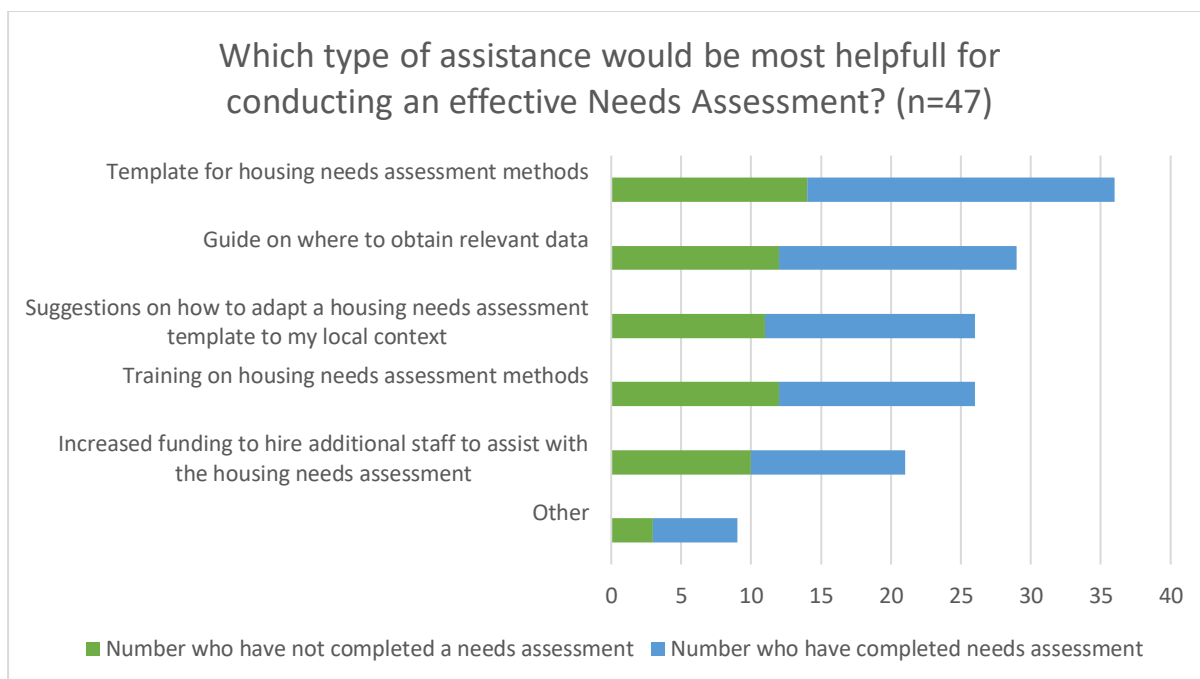
## Need Assessment Capacity

Inconsistent methods of need assessments, as well as accessing data, are some of the most significant challenges to overcome in a successful need assessment. Twenty respondents reported that lack of standardization of methods was a significant barrier to conducting a need assessment, while 15

respondents pointed to barriers to accessing necessary data. In terms of those barriers to data, 18 respondents indicated that data on loss of affordable housing was challenging to source, and 17 respondents had troubles with source data on priority populations. Data on the existing housing stock was also challenging for 12 respondents.

Respondents indicated that HART has great potential to assist with some of these challenges. When asked about what type of assistance would most help their organization succeed in a housing need assessment, 36 respondents indicated that a template for housing need assessment methods would be very helpful, and 29 reported that they would find it helpful to have a guide on where to find all the necessary data. As one respondent stated, “Accessing in-house data analysts is a big struggle, need people who can work with raw data sets to extract meaning.”





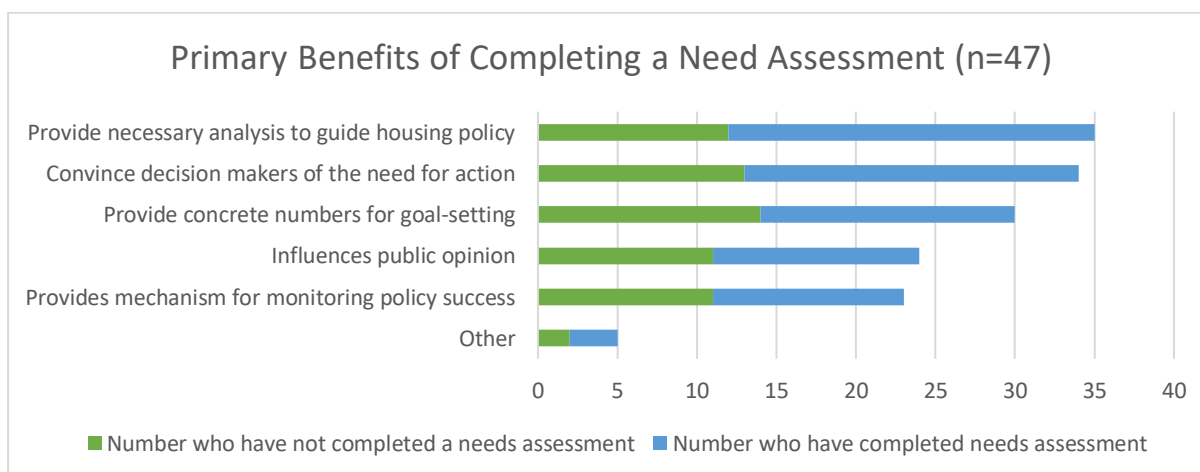
Figures 28-30. Barriers and Desired Assistance in Relation to Need Assessment

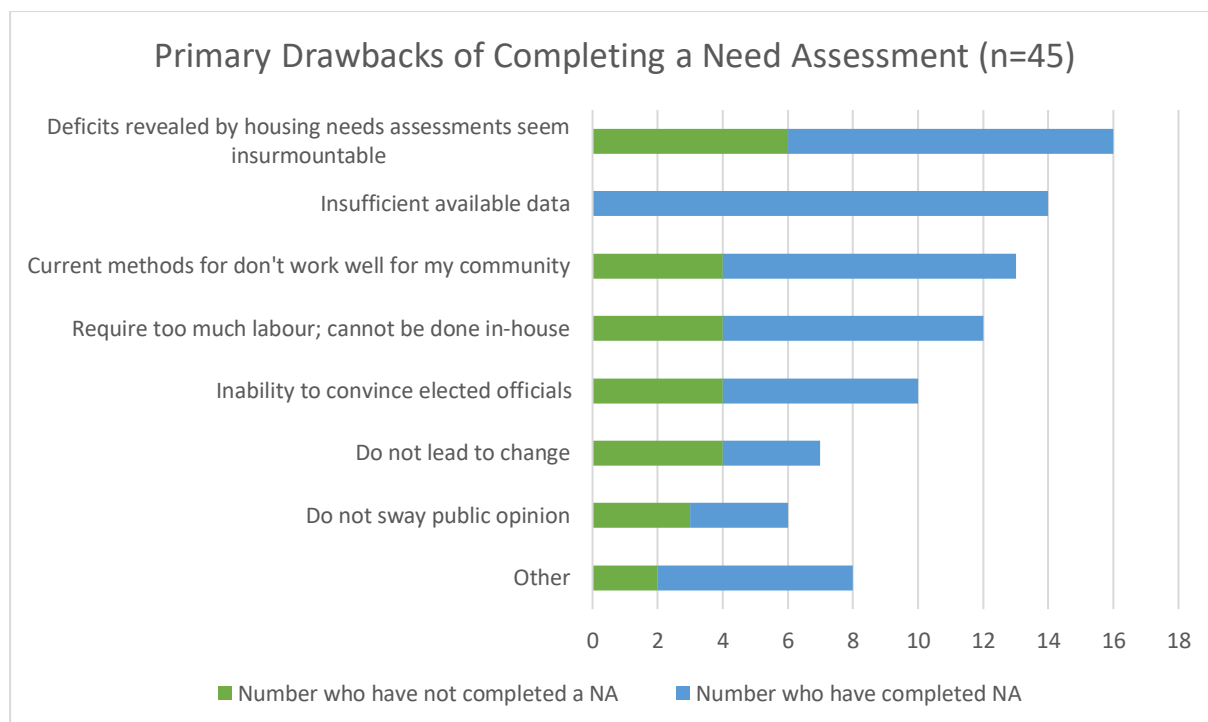
## Need Assessment Impact

The top three benefits for completing a need assessment reported by the respondents include:

- Providing necessary analysis to guide housing policy (35 respondents)
- Convincing decision makers of the need to action (34 respondents)
- Providing concrete numbers for goal-setting (30 respondents)

In terms of drawbacks, many respondents (16) indicated that the deficits in housing revealed by the assessment seems insurmountable, perhaps indicating that need assessments may not be very effective unless they are paired with means to make significant increases in the right supply of housing. Another commonly cited drawback was the lack of sufficient available data (14 respondents), which echoes the responses to the question regarding some of the biggest challenges in conducting a need assessment.





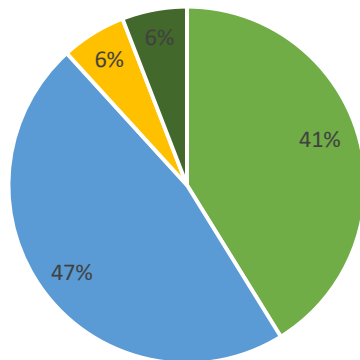
Figures 31-32. Advantages and Drawbacks, Need Assessment

Respondents were asked either how much influence a need assessment could have or did have on policy change, depending on whether their organization had completed a need assessment in the last ten years. Those who had not completed a need assessment before mostly found that policy change from a need assessment was likely, with 41% believing it was very likely and 47% thinking it was somewhat likely. For those who have completed a need assessment, a smaller proportion said it had an impact on policy change: 32% reported that it strongly influenced policy change, and a further 36% reported a moderate influence on policy change. Only 8% indicated that they did not think that the need assessment had any influence on policy change. This indicates that organizations who have not completed a need assessment do see potential value in completing one even though they haven't done one to date. Furthermore, this reinforces that need assessments have a potential for significant impact.

The majority of respondents (68%) indicated that their organization had set targets to address the deficit revealed in the need assessment. Of those who had set targets, respondents were asked how much of that deficit they think their targets would fulfill. It was evenly split between those who felt that the targets wouldn't address most of the deficit and those who felt that it would address most of the deficit; 5 respondents felt that their targets would address 50% of the deficit at most, while four respondents felt that their targets would address more than 75% of the deficit. Regarding taking a rights-based approach, only 33% of the respondents reported that their organization was using a rights-based approach in their need and/or land assessment, while 41% felt that their organization was not using a rights-based approach in these assessments. Education on what a rights-based approach means and how it can be integrated into these assessments could be a valuable contribution for HART.

### How likely is a housing need assessment to influence policy change? (n=17)

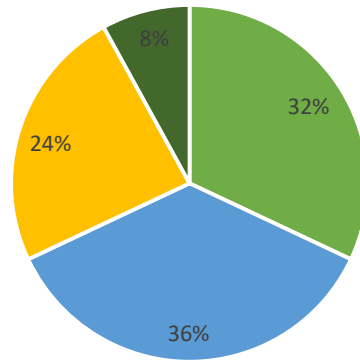
- Very likely influence policy change
- Somewhat likely influence policy change
- Somewhat unlikely to influence policy change
- Very unlikely to influence policy change



Note: this question was only included for those who indicated that their organization had not completed a need assessment in the past 10 years.

### To what extent did completing a housing need assessment influence policy change? (n=25)

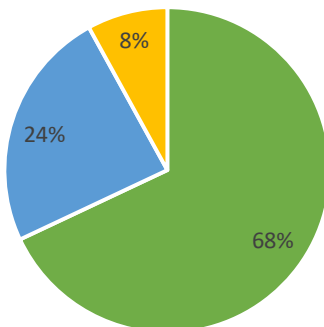
- Strongly influenced policy change
- Moderately influenced policy change
- Slightly influenced policy change
- Has not influenced policy change



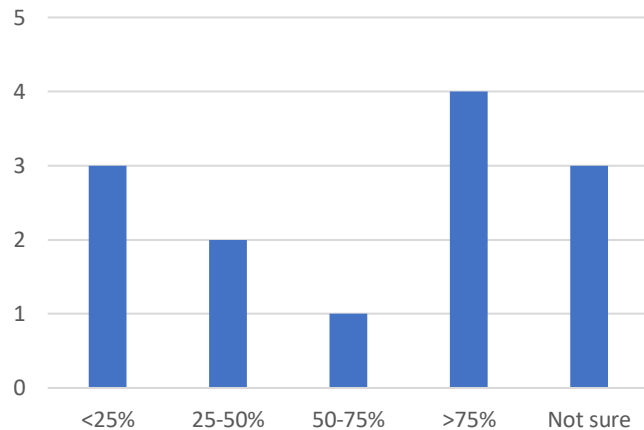
Note: this question was only included for those who indicated that their organization had completed a need assessment in the past 10 years.

### Has your organization set targets to address some or all of the deficit revealed by your most recent housing need assessment? (n=25)

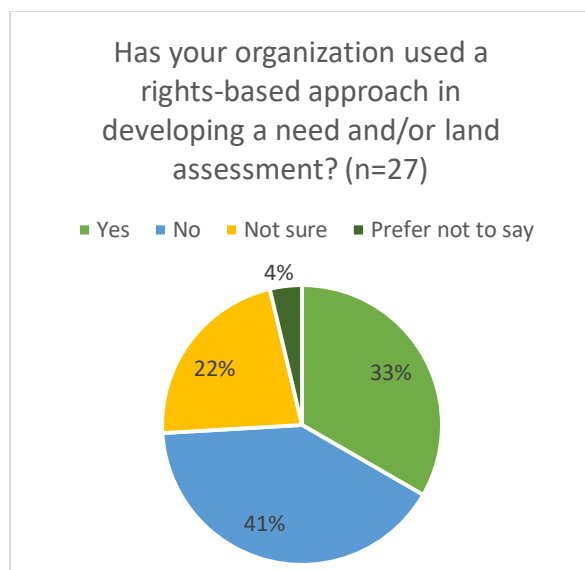
- Yes
- No
- Not sure



### Based off of your organization's latest housing need assessment, what proportion of the housing unit deficit do your organization's current targets address? (n=13)



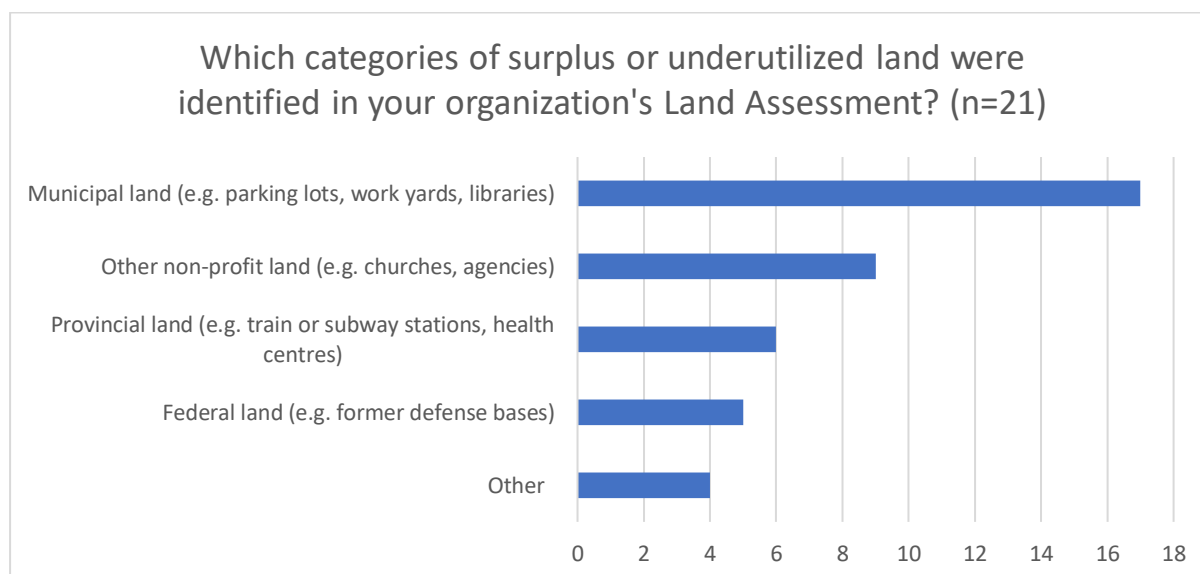




Figures 33-37. Impacts of Need Assessment

## Land Assessment Methods

The HART Survey aimed to learn about the methods organizations have been using in their land assessments, particularly with regards to how they identify land and properties with potential for developing affordable housing. In terms of identifying underutilized or surplus land, many organizations (17) did include an examination of underutilized or surplus municipal land. There were some respondents who reported that their organization had identified provincial (6 respondents) and federal (5 respondents) land, but facilitating improved cooperation between higher levels of government and municipalities may help local government organizations find more opportunities for affordable housing on provincial and federal land. The most common types of properties that respondents had examined for acquisition were existing low-rent apartments, existing rooming houses, and hotels.



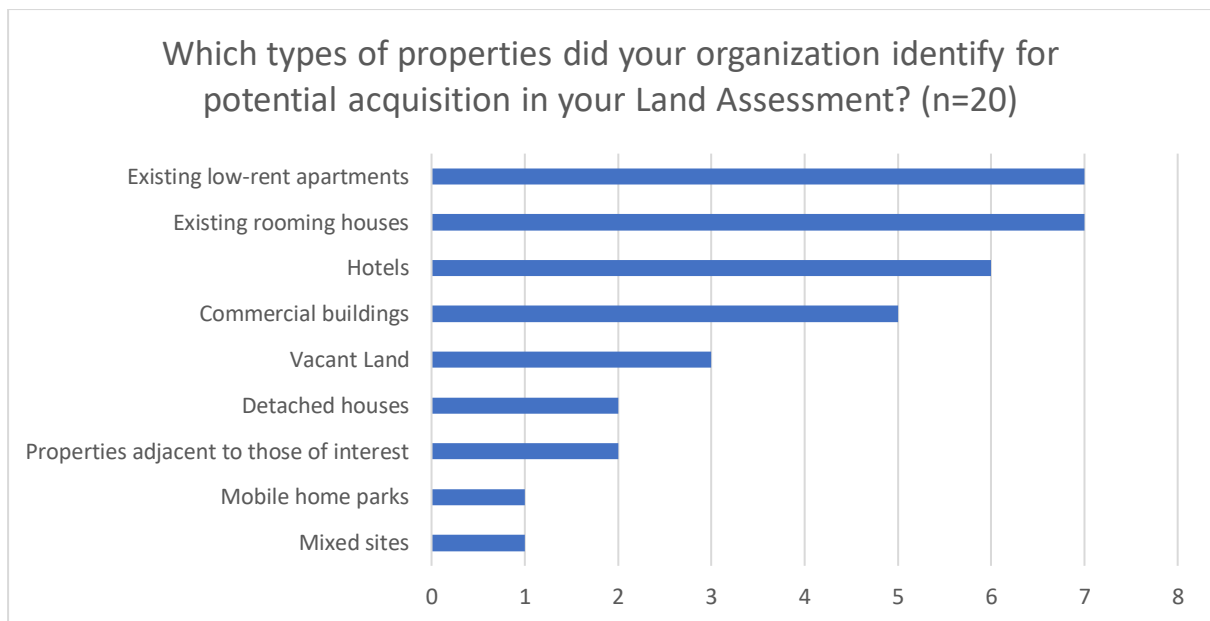


Figure 38-39. Land Assessment Focus

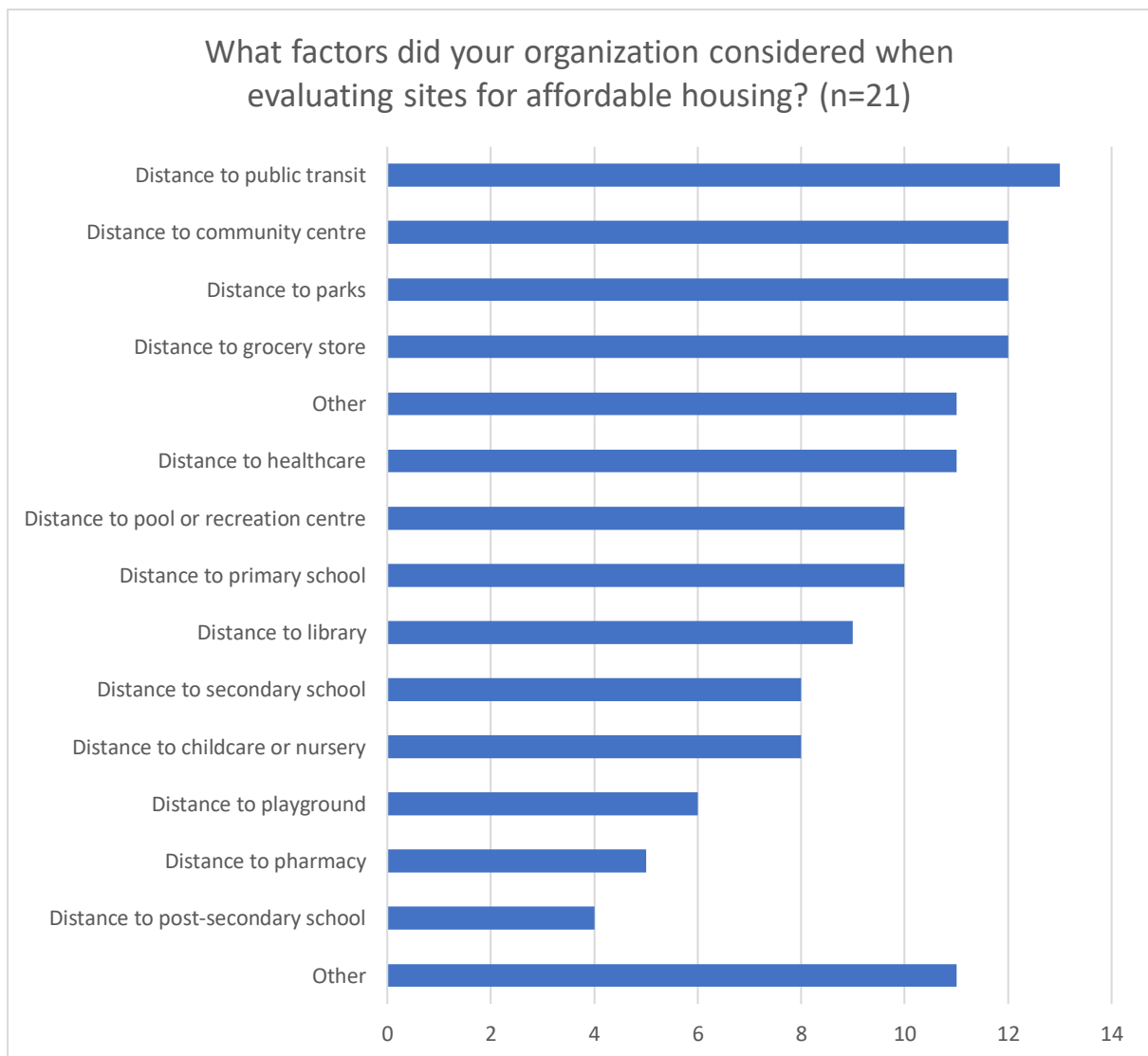
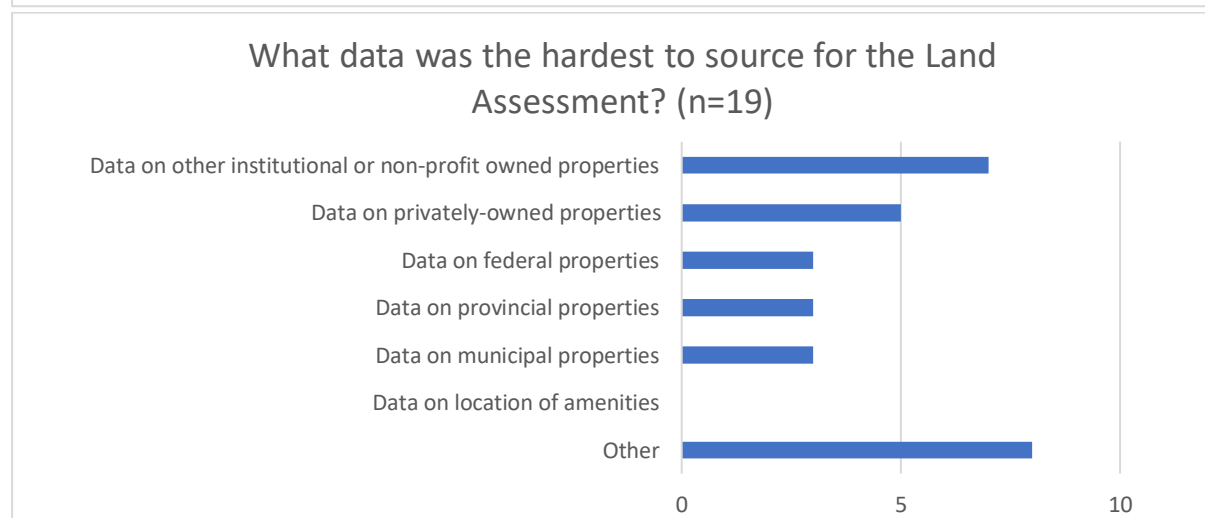
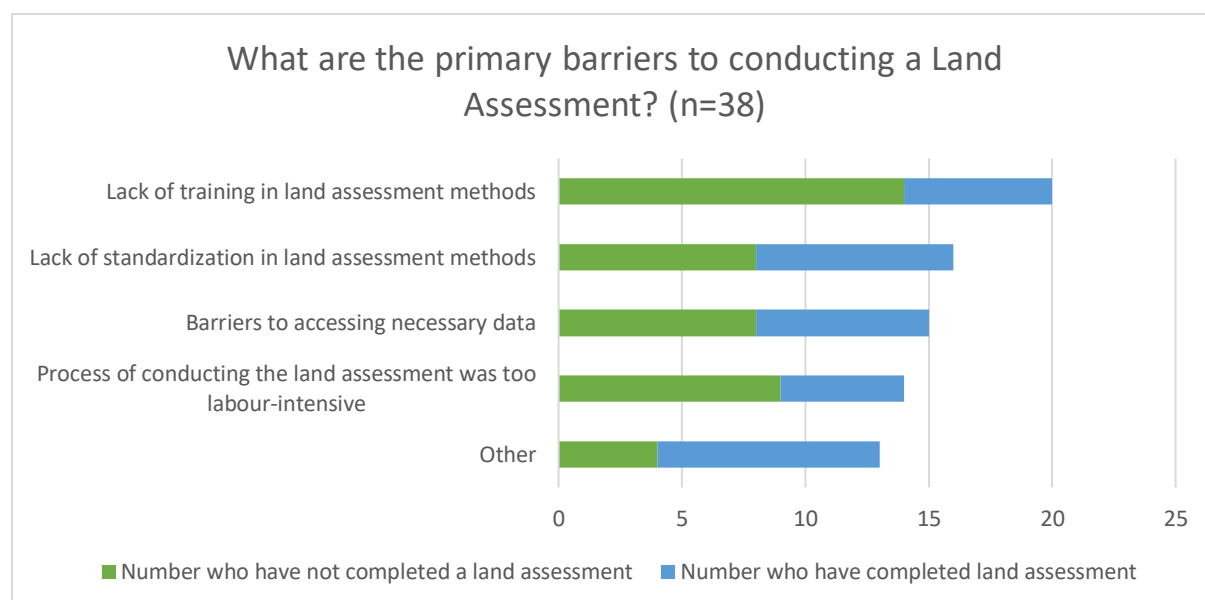


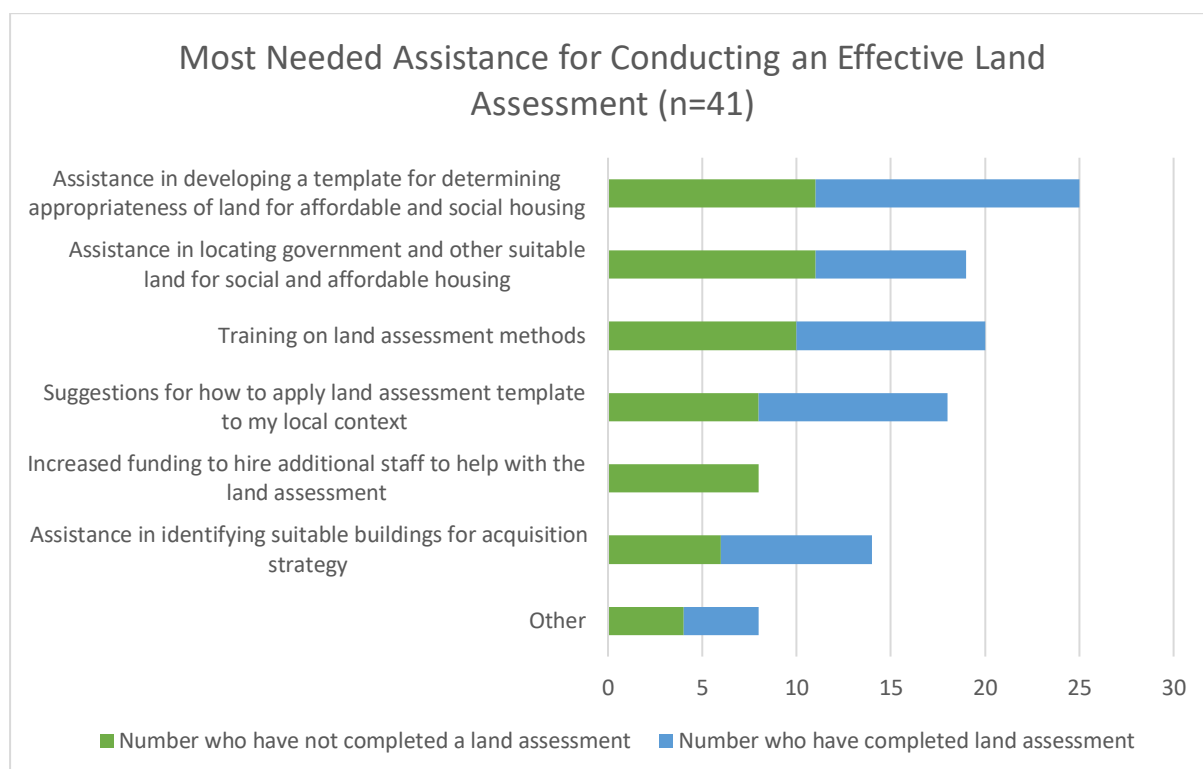
Figure 40. Locational Factors, Land Assessment

## Land Assessment Capacity

The HART Survey included several questions that intended to learn about the main barriers in conducting a land assessment and how to increase organizations' capacity. The most common barriers cited include lack of training (20 respondents), lack of standardization of methods (16 respondents), and poor access to data (15 respondents). In terms of those barriers to data, the most common challenge cited was finding data on properties owned by other organizations (e.g. other levels of government or non-profit organizations).

When asked about what type of assistance would most help their organization succeed in a land assessment, there were two responses which were the most common. Twenty-five respondents indicated that a template for land assessment methods would be very helpful, and 20 reported that they would find it helpful to receive training on land assessment methods. Respondents also indicated a variety of other avenues of help, such as help with a land acquisition strategy or identifying underutilized land, so there are a lot of areas that the HART could provide assistance.

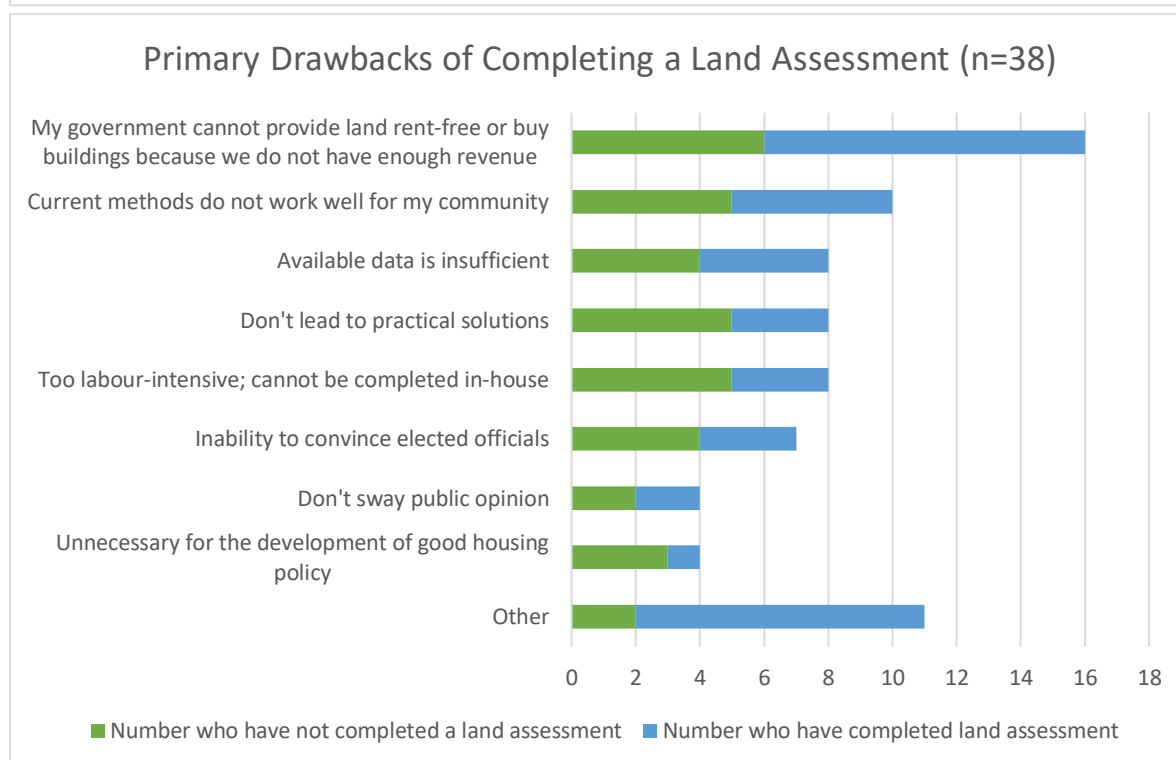
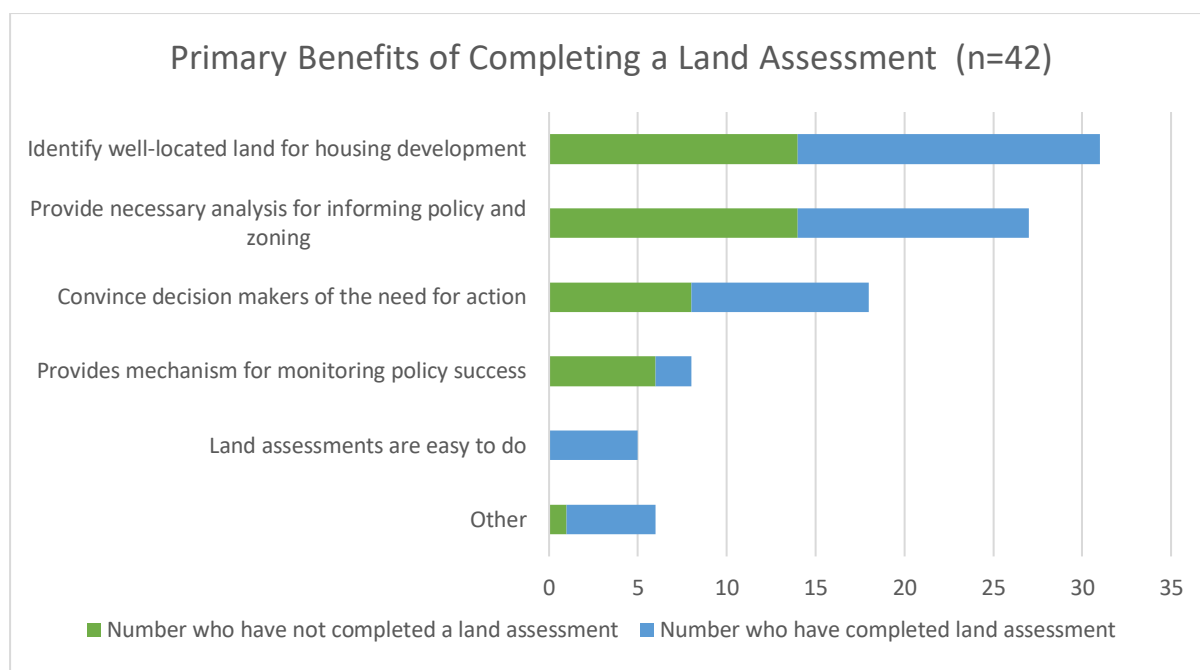




Figures 41-43. Primary Barriers and Assistance Required, Land Assessment

## Land Assessment Impact

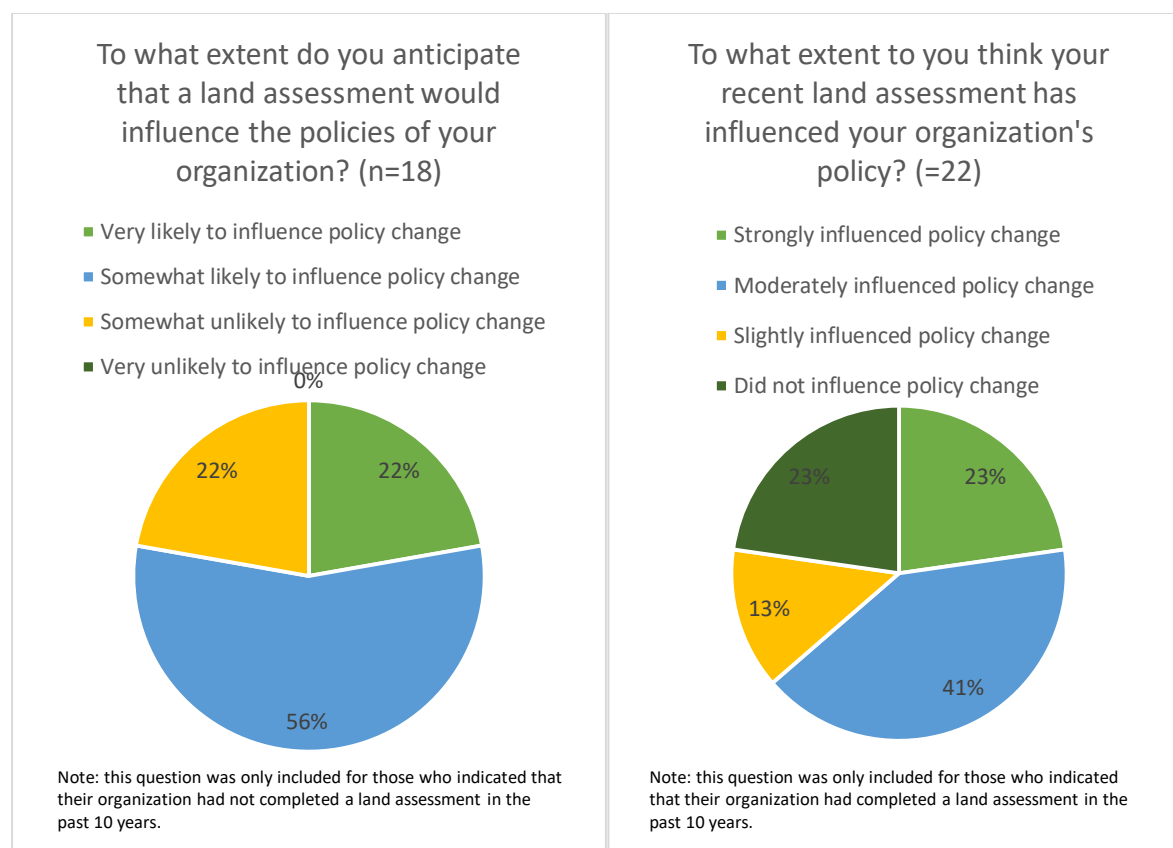
Regarding the benefits of land assessments, two benefits stood out in the responses: 31 respondents indicated that identifying well-located land for housing development was a primary benefit of a land assessment, and 27 respondents found that one of the land assessment's primary benefits was providing the necessary analysis to inform zoning and policy. There was also a clear drawback reported among the respondents: 16 respondents indicated that their government does not have the funding to provide land rent-free or to acquire properties, which would make the land assessment have more limited benefit. The expansion of the Rapid Housing Initiative to include land and building acquisition would assist these governments.



Figures 44-45. Advantages and Drawbacks, Land Assessment

As with the need assessment, respondents were asked either how much influence a land assessment could have or did have on policy change. Those who had not completed a land assessment before mostly found that policy change from a land assessment was likely, with 22% believing it was very likely and 56% thinking it was somewhat likely. For those who have completed a land assessment, many thought it did have an impact on policy change. 23% reported that it strongly influenced policy change, and a further 41% reported a moderate influence on policy change. However, 23% indicated that they did not think that the land assessment had any influence on policy change. It is interesting that a higher proportion of respondents found that their land assessment had no influence compared to those that found that their need assessment had no impact. Further engagement with the survey participants may

be able to help shed light on why some people found their land assessment to be unsuccessful in causing policy change.



Figures 46-47. Policy Influence of Land Assessment

## Discussion and Conclusion

The survey results demonstrate that the standardized and replicable methods developed by HART, combined with training opportunities, would enhance housing strategies across the Canadian governments surveyed.

**Need assessments:** For those who have conducted a need assessment, the survey revealed that there were gaps in their method. The focus of existing need assessment was seniors, and those experiencing homelessness, and the loss of affordable housing was not factored in by most communities. Fewer than 10 respondents reported the inclusion of newcomers, racialized community members, veterans, LGBTQ2+ populations, and many other priority groups. The lack of consistent methods, and challenges in accessing data impede the development of a robust need assessment. Respondents welcome a tool that provides a template for housing need assessment methods and a guide to locate the necessary data. Governments and housing organizations would also like assistance on how to adapt the tool to their local context, as well as comprehensive training.

**Land assessments:** The survey revealed that land assessment of underutilized or surplus land is not as widely conducted as housing need assessments. Data is not easily available and communities lacked resources to conduct assessments. However, respondents recognized that land assessments are critical in providing the necessary analysis to inform zoning and policy decisions. As was noted for the



housing need assessment, a tool that provides a template for land assessment methods and a guide to locate the necessary data would be beneficial, as well as assistance on how to adapt the tool to their local context and training on how to use the tool. Land assessments can also serve as the basis for real-time decision-making in an ever-shifting housing landscape. As one respondent stated, “Being able to appropriately prioritize land so that we are ready to jump on funding opportunities to build affordable housing.”

The survey results confirm that the Housing Assessment Resource Tool (HART) would be very beneficial for the communities that do not currently complete housing need assessments, as well as those that do. In all municipalities, the survey demonstrated that HART would assist communities in compiling data for land assessment. The survey revealed that while many communities are doing some forms of housing assessments, there are gaps and limitations in translating the assessment into action. HART is intended to address the limitations revealed by survey participants and provide a robust tool that can be used effectively in policy and decision making.



## CONCLUSION

This report has demonstrated an easy-to-use, robust, equity-focused, replicable and comparable tool that can be used by all levels of government. The housing need calculations allow the necessary price points and sizes of households to be better incorporated into strategy. The land assessment tool focuses on one of the most important mechanisms to improve housing outcomes. The survey shows considerable interest and need for these kinds of standardized tools.

It is intended that these housing need calculations inform 10-year housing strategies that can be updated, along with need calculations, every five years (preferably in the year after the census i.e. 2022, 2027, 2032). It will probably be impossible, without greatly scaled up support from the federal government, to meet all housing need within the next 10 years. An emphasis on functional zero homelessness, with a target of eradicating chronic homelessness and alleviating overcrowding and spending over 50% of total income on housing costs, may be possible within the next 10 years, after which the more ambitious target of alleviating all housing need might be accomplished with scaled up social housing.

The housing need assessment focuses on the need for permanent homes rather than emergency or transitional housing. Using [Housing First](#) principles mean finding low-cost permanent housing for homeless people, with appropriate supports if needed. A right to housing commitment means focusing on the need of those most marginalized, including people without homes. A supplemental 'by name list' of all people accessing homeless services should be a part of a housing strategy.

The focus on municipal boundaries – the City of Kelowna in this case - means that need may be under-represented. Households who want to live in the City of Kelowna in order to access work or services (schools, medical need) may be living in adjacent or more distant areas in order to afford homes.

There are strong limitations in the 30% of household income affordability approach, but [residual income](#) is much harder to calculate. Including transport and energy costs would be a stronger longer-term modification of this very simple model. There are also limitations in any income categorization and certainly in a simplistic analysis of household size that excludes whether couples or young children are sharing a bedroom.

Several priority populations are excluded from the census, most notably women and children fleeing violence. Again, assuming that these households are homeless and prioritising them for social housing is necessary.

The literature on treating affordable housing as vital infrastructure recommend an industrialized approach that is supported by integrated policy at both local and provincial/ territorial/ federal levels. Reliance on a 'retail' approach ("we created 40 units and all it took was a 10-year battle over finding a site, obtaining necessary permissions including rezoning, applying for adequate construction funding, and building it!") is a recipe for increased homelessness.

This housing need assessment tool recognizes limitations of relying on point in time homeless count measures (hard to organize, leaves out most homeless people), social housing waitlists (not every municipality has a combined social housing waitlist and they are highly politicized with incentives to drop households), or asking agencies for their numbers. By focusing on household size as well as income category, it helps protect against overcrowding or rejection of a household for social housing because it is "too big". By focusing on priority populations, it encourages a range of new homes that are accessible and culturally appropriate. By recognising net loss of affordable housing, it allows a real accounting of progress towards housing for all.

The need assessment tool allows housing strategies to focus on essential price points, household sizes, and priority populations, which would support a strong regulatory approach. This should be backed by eradication of exclusionary zoning, the development of housing targets, scaling up social housing (with the help of other levels of government), and increasing affordable private rental while protecting against its loss.

The land assessment tool taps into the most important method to rapidly increase low-cost housing over lifespan of a plan: building social housing on public and non-profit land.

If successful in the next stage of funding, we have already received interest from 10 governments across Canada, ranging from very small regional governments with a population of 6,000, to several of Canada's six largest cities, to one provincial/ territorial government. We will provide assistance in testing out and further modifying the tools in these settings. We will evaluate the impact of using these tools. We will develop a database of housing and land data that can help roll out this model nationally. We wish to advance the land assessment tool by introducing a method of identifying land and buildings that should be acquired by local government for use by social housing, based on the [Displacement Alert Project](#) in New York City. Finally, we will develop training to assist in further disseminating these tools.

## References

- Aleman, A. (2016, November 10). What do we know about veteran homelessness in Canada? Homeless Hub. <https://www.homelesshub.ca/blog/what-do-we-know-about-veteran-homelessness-canada>
- Alzheimer Society of Canada, ARCH Disability Law Centre, Canadian Association for Community Living, Canadian Mental Health Association, Toronto Branch, Council of Canadians with Disabilities, IRIS – Institute for Research and Development on Inclusion and Society, People First of Canada, Social Rights Advocacy Centre, & Wellesley Institute. (2017). *Meeting Canada's Obligations to Affordable Housing and Supports for People with Disabilities to Live Independently in the Community*. Office of the United Nations High Commissioner for Human Rights. <https://www.ohchr.org/Documents/Issues/Housing/Disabilities/CivilSociety/Canada-ARCHDisabilityLawCenter.pdf>
- August, M. (2020, July 26). The coronavirus exposes the perils of profit in seniors' housing. *The Conversation*. <http://theconversation.com/the-coronavirus-exposes-the-perils-of-profit-in-seniors-housing-141915>
- Baxter, M. (2020, November 24). What new rules mean for Ontarians waiting for social housing. *TVO*. <https://www.tvo.org/article/what-new-rules-mean-for-ontarians-waiting-for-social-housing>
- BC Ministry of Municipal Affairs and Housing (2020). *Housing Needs Reports*. <https://www2.gov.bc.ca/gov/content/housing-tenancy/local-governments-and-housing/policy-and-planning-tools-for-housing/housing-needs-reports>
- BC Non-Profit Housing Association. (2021). *Canadian Rental Housing Index*. <http://rentalhousingindex.ca/en/#intro>
- BC Transit. (2021). Open Data. <https://www.bctransit.com/open-data>
- Breton, C. (2020). *Urban Indigenous Housing in BC: Municipal response through housing policies and plans*. <https://static1.squarespace.com/static/573e02ab62cd943531b23633/t/600f5460f6c6424d411ff8b7/1611617378284/Final%2BReport.pdf>
- Brierley, A., Roy, A., Biss, M., Raza, S., & Buckingham, S. (2021). *Addressing the Eviction and Arrears Crisis: Proposal for a Federal Government Residential Tenant Support Benefit*. Toronto: Centre for Equality Rights in Accommodation. <https://static1.squarespace.com/static/5e3aed3ea511ae64f3150214/t/602da6be9e9bcf7b7fedbebf/1613604715082/Addressing+the+Evictions+and+Arrears+Crisis+-+CERA+%2B+NRHN+%282021%29.pdf>
- British Columbia's Office of the Human Rights Commissioner. (2020). *Disaggregated demographic data collection in British Columbia: The grandmother perspective*. [http://epe.lac-bac.gc.ca/100/200/300/bcohrcc/disaggregated/BCOHRCC\\_Sept2020\\_Disaggregated-Data-Report.pdf](http://epe.lac-bac.gc.ca/100/200/300/bcohrcc/disaggregated/BCOHRCC_Sept2020_Disaggregated-Data-Report.pdf)
- Built for Zero Canada. (2021). *Built for Zero Canada: Functional Zero Homelessness Question and Answer Document*. <https://bfzcanada.ca/wp-content/uploads/Functional-Zero-QA.pdf>
- Canadian Centre for Economic Analysis. (2017). *Understanding the Forces Driving the Shelter Affordability Issue: A Linked-Path Assessment of Housing Market Dynamics in Ontario and the GTHA*. <https://www.deslibris.ca/ID/10090965>



- Canadian Institute for Health Information. (2017). Infographic: Canada's seniors population outlook: Uncharted territory. Toronto; Canadian Institute for Health Information. <https://www.cihi.ca/en/infographic-canadas-seniors-population-outlook-uncharted-territory>
- Canada Mortgage and Housing Corporation. (2018). Accessible and Adaptable Housing. <https://www.cmhc-schl.gc.ca/en/professionals/industry-innovation-and-leadership/industry-expertise/accessible-adaptable-housing>
- Canada Mortgage and Housing Corporation. (2019a, May 28). 18% of Indigenous households in core housing need. *The Housing Observer*. <https://www.cmhc-schl.gc.ca/en/blog/2019-housing-observer/indigenous-households-core-housing-need>
- Canada Mortgage and Housing Corporation. (2019b, August 7). The Wheelhouse: A New Way of Looking at Housing Needs. *The Housing Observer*. <https://www.cmhc-schl.gc.ca/en/blog/2019-housing-observer/wheelhouse-new-way-looking-housing-needs>
- Canada Mortgage and Housing Corporation. (2020a). Housing Supply Challenge: Round 1—Data Driven. Impact Canada. <https://impact.canada.ca/en/challenges/housing-supply-challenge>
- Canada Mortgage and Housing Corporation. (2020b, July 20). Rental Construction Financing Initiative. CMHC. <https://www.cmhc-schl.gc.ca/en/professionals/project-funding-and-mortgage-financing/funding-programs/all-funding-programs/rental-construction-financing-initiative>
- Canada Mortgage and Housing Corporation. (2021a). Rental Market Report: Canada and Selected Markets. <https://assets.cmhc-schl.gc.ca/sites/cmhc/data-research/publications-reports/rental-market-reports/2020/rental-market-report-69720-2020-en.pdf?rev=936ca622-a6c5-4cbc-b937-d29b1d63cc14>
- Canada Mortgage and Housing Corporation. (2021b, January 28). 2020 Rental Market Report. *The Housing Observer*. <https://www.cmhc-schl.gc.ca/en/blog/2021/2020-rental-market-report>
- Canada Mortgage and Housing Corporation. (2021c, June 23). Rapid Housing Initiative (RHI). Canada Mortgage and Housing Corporation. <https://www.cmhc-schl.gc.ca/en/professionals/project-funding-and-mortgage-financing/funding-programs/all-funding-programs/rapid-housing>
- Canadian Institute of Health Information (2021) Infographic: Canada's seniors population outlook: Uncharted territory <https://www.cihi.ca/en/infographic-canadas-seniors-population-outlook-uncharted-territory>
- Catalyst. (2020, October 20). People of Colour in Canada. <https://www.catalyst.org/research/people-of-colour-in-canada/>
- CBC News (2020, April 17). Early signs suggest race matters when it comes to COVID-19. So why isn't Canada collecting race-based data? <https://www.cbc.ca/news/canada/toronto/race-coronavirus-canada-1.5536168>
- CBC News (2021, February 24). COVID-19 variant found in more Toronto homeless shelters and an encampment. <https://www.cbc.ca/news/canada/toronto/covid-ont-toronto-homeless-1.5926469>
- City of Kelowna. (2021a). Open data catalogue. <https://www.kelowna.ca/city-services/city-maps-open-data/open-data-catalogue>
- City of Kelowna. (2021b). Rental Housing Inventory. <https://kelownapublishing.escribemeetings.com/filestream.ashx?DocumentId=24010>

- City of Kelowna. (2018a). *Kelowna's Journey Home Strategy*. [https://www.kelowna.ca/sites/files/1/docs/community/Journey-Home/journeyhome\\_communityreport\\_web.pdf](https://www.kelowna.ca/sites/files/1/docs/community/Journey-Home/journeyhome_communityreport_web.pdf)
- City of Kelowna. (2018b). *Healthy Housing Strategy*. <https://www.kelowna.ca/our-community/planning-projects/healthy-city-strategy/healthy-housing-strategy>
- City of Kelowna. (2017). *Our Homes Today & Tomorrow: A Housing Needs Assessment*. <https://kelownapublishing.escribemeetings.com/filestream.ashx?DocumentId=9446>
- City of Kelowna. (2016). *Official Community Plan*. <https://www.kelowna.ca/our-community/planning-projects/official-community-plan>
- City of Montréal. (2021, July 20). *Diverse metropolis: An overview of the by-law*. <https://montreal.ca/en/articles/diverse-metropolis-overview-law-7816>
- City of Toronto. (2021). *The Canada-Ontario Housing Benefit (COHB)*. <https://www.toronto.ca/community-people/employment-social-support/housing-support/rent-geared-to-income-subsidy/canada-ontario-housing-benefit/>
- City of Toronto. (2020). *COVID-19: Housing and Homelessness Recovery Response Plan*. [https://www.toronto.ca/wp-content/uploads/2020/09/9883-COVID19\\_HousingResponsePlan\\_Handout\\_Letter.pdf](https://www.toronto.ca/wp-content/uploads/2020/09/9883-COVID19_HousingResponsePlan_Handout_Letter.pdf)
- City of Toronto. (2016). *Attachment I: Jurisdictional Scan of Regulatory Regimes for Multi-residential Rental Properties*. <https://www.toronto.ca/legdocs/mmis/2016/Is/bgrd/backgroundfile-92891.pdf>
- City of Vancouver. (2021). *Temporary modular housing*. <https://vancouver.ca/people-programs/temporary-modular-housing.aspx>
- City of Vancouver. (2018). *Housing Vancouver Strategy*. <https://council.vancouver.ca/20171128/documents/rr1appendixa.pdf>
- City of Vancouver. (1992). *High-density Housing for Families with Children Guidelines*. <https://guidelines.vancouver.ca/guidelines-high-density-housing-for-families-with-children.pdf>
- Community Land Trust: A Place to Call Home. (2021). *Community Land Trust*. <https://www.cltrust.ca/>
- Community Solutions (2021, January 29). *What Is a By Name List?*. <https://community.solutions/what-is-a-by-name-list/>
- Cooper, S. (2014, November 21). *Fast Facts: Federal withdrawal results in loss of social housing*. Ottawa: Canadian Centre for Policy Alternatives. <https://www.policyalternatives.ca/publications/commentary/fast-facts-federal-withdrawal-results-loss-social-housing>
- Coriolis Consulting Corp., & Wollenberg Munro Consulting Inc. (2019). *Reducing the Barrier of High Land Cost: Strategies for Facilitating More Affordable Rental Housing Construction in Metro Vancouver*. <http://www.metrovancouver.org/services/regional-planning/PlanningPublications/ReducingBarrierHighLandCost.pdf>
- Cranston, L. K., & Kam, M. (2018). *Lessons From "Our Home Today and Tomorrow": A Housing Needs Assessment*. Winnipeg: University of Manitoba. [https://umanitoba.ca/faculties/architecture/media/CP\\_cip2018\\_KingCranston.pdf](https://umanitoba.ca/faculties/architecture/media/CP_cip2018_KingCranston.pdf)
- Demographia. (2021). *Demographia International Housing Affordability 2021 Edition*. <http://www.demographia.com/dhi.pdf>



- Dennis, M., & Fish, S. (1972). *Low-Income Housing: Programs in Search of a Policy*. Ottawa: Canadian Mortgage and Housing Corporation. [https://publications.gc.ca/collections/collection\\_2017/schl-cmhc/NH15-530-1972-eng.pdf](https://publications.gc.ca/collections/collection_2017/schl-cmhc/NH15-530-1972-eng.pdf)
- Displacement Alert Project. (2021). *Displacement Alert Project*. <https://www.displacementalert.org>
- Elver, D. (2019, July 25). LGBTQ2S+ Housing Needs and Challenges. *The Housing Observer*. <https://www.cmhc-schl.gc.ca/en/blog/2019-housing-observer/lgbtq2s-housing-needs-challenges>
- Employment and Social Development Canada. (2014). *Government of Canada—Action for Seniors report*. Government of Canada. <https://www.canada.ca/en/employment-social-development/programs/seniors-action-report.html>
- Federation of Canadian Municipalities. (2020). *COVID-19 and Housing: Critical need, urgent opportunity*. <https://data.fcm.ca/documents/resources/covid-19-and-housing.pdf>
- Government of Canada. (2021a, April 14). Gender-based Analysis Plus (GBA+). Women and Gender Equality Canada. <https://women-gender-equality.canada.ca/en/gender-based-analysis-plus.html>
- Government of Canada. (2021b). Progress on the National Housing Strategy. A Place to Call Home. <https://www.placetocallhome.ca/progress-on-the-national-housing-strategy>
- Government of Canada. (2020). A Stronger and More Resilient Canada: Speech from the Throne to Open the Second Session of the Forty-third Parliament of Canada. [https://www.canada.ca/content/dam/pco-bcp/documents/pm/SFT\\_2020\\_EN\\_WEB.pdf](https://www.canada.ca/content/dam/pco-bcp/documents/pm/SFT_2020_EN_WEB.pdf)
- Government of Canada (2019). National Housing Strategy Act. <https://laws-lois.justice.gc.ca/eng/acts/N-11.2/FullText.html>
- Government of Canada. (2018a). Canada's National Housing Strategy: A Place to Call Home. <https://www.placetocallhome.ca/pdfs/Canada-National-Housing-Strategy.pdf>
- Government of Canada. (2018b). *The National Housing Strategy: Glossary of Common Terms*. <https://eppdscrmssa01.blob.core.windows.net/cmhcprodcontainer/files/pdf/glossary/nhs-glossary-en.pdf?sv=2020-02-10&ss=b&srt=sco&sp=r&se=2024-03-30T20:07:16Z&st=2021-03-30T12:07:16Z&spr=https&sig=zphoCuN3v1pBI42RCaX1EaitvCCwi6S7%2BcL5lgMH2RY%3D>
- Gunraj, A. & Howard, J. (2020, April 9). Why is the COVID-19 Pandemic Linked to More Gender-Based Violence? Ottawa: Canadian Women's Foundation. <https://canadianwomen.org/blog/covid-19-pandemic-gender-based-violence/>
- Homeless Hub. (2021a). Affordable Housing. <https://www.homelesshub.ca/solutions/housing-accommodation-and-supports/affordable-housing>
- Homeless Hub. (2021b). Housing First. <https://www.homelesshub.ca/solutions/housing-accommodation-and-supports/housing-first>
- Homeless Hub. (2021c). Racialized Communities. <https://www.homelesshub.ca/about-homelessness/population-specific/racialized-communities>
- Housing First Europe Hub. (2020). Finland. <https://housingfirsteurope.eu/countries/finland/>
- Howard, J. (2021). The Facts about Gender-Based Violence. Toronto: Canadian Women's Foundation. <https://canadianwomen.org/the-facts/gender-based-violence/>

- Housing and Urban Development [US] (2021, April 1). Income Limits. <https://www.huduser.gov/portal/datasets/il.html>
- Housing Research Collaborative. (2021). Homepage. Vancouver: University of British Columbia. <https://housingresearchcollaborative.scarp.ubc.ca/>
- Indigenous Housing Caucus Working Group, Canadian Housing Renewal Association. (2018). *A For Indigenous By Indigenous National Housing Strategy*. [https://chra-achru.ca/wp-content/uploads/2015/09/2018-06-05\\_for-indigenous-by-indigenous-national-housing-strategy.pdf](https://chra-achru.ca/wp-content/uploads/2015/09/2018-06-05_for-indigenous-by-indigenous-national-housing-strategy.pdf)
- Indigenous Services Canada. (2020). Annual Report to Parliament 2020. <https://www.sac-isc.gc.ca/eng/1602010609492/1602010631711>
- Jeudy, L. (2021, July 6). Canada—Population, by gender and age 2020. Statista. <https://www.statista.com/statistics/444858/canada-resident-population-by-gender-and-age-group/>
- Kaakinen, J. (2019). Housing first: How Finland is ending homelessness. <https://doi.org/10.1787/aa39e88f-en>
- Kapalschinski, C. (2018, August 30). Something for everyone: Hamburg fights housing crunch with cooperation. *Handelsblatt Today*. <https://www.handelsblatt.com/english/something-for-everyone-hamburg-fights-housing-crunch-with-cooperation/23583140.html?ticket=ST-1897430-DnGVKOnRJoRvTelglGiG-ap5>
- Kembhavi, R. (2012). Canadian Seniors: A Demographic Profile. Ottawa: Elections Canada. <https://www.elections.ca/content.aspx?section=res&dir=rec/part/sen&document=index&lang=e>
- Lawson, J., & Ruonavaara, H. (2019). *Land Policy for Affordable and Inclusive Housing: An International Review*. Helsinki: Smartland Institute. <https://smartland.fi/wp-content/uploads/Land-policy-for-affordable-and-inclusive-housing-an-international-review.pdf>
- Lee, M. (2016). *Getting serious about affordable housing: Towards a plan for Metro Vancouver*. Ottawa: Canadian Centre for Policy Alternatives. <http://www.policyalternatives.ca/sites/default/files/uploads/publications/BC%20Office/2016/05/CCPA-BC-Affordable-Housing.pdf>
- Macdonald, D. (2019). *Unaccommodating: Rental Housing Wage in Canada*. Ottawa: Canadian Centre for Policy Alternatives. <https://www.policyalternatives.ca/unaccommodating>
- MacPhail, J., Atkey, J., Finlayson, J., McCaulay, B., Paish, S., & Pastrick, H. (2021). *Opening Doors: Unlocking Housing Supply for Affordability*. Vancouver: Canada-BC Expert Panel on Housing Supply and Affordability [https://engage.gov.bc.ca/app/uploads/sites/588/2021/06/Opening-Doors\\_BC-Expert-Panel\\_Final-Report\\_Jun16.pdf](https://engage.gov.bc.ca/app/uploads/sites/588/2021/06/Opening-Doors_BC-Expert-Panel_Final-Report_Jun16.pdf)
- Mahboob, T. (2020, January 24). Housing is a human right: How Finland is eradicating homelessness. CBC. <https://www.cbc.ca/radio/sunday/the-sunday-edition-for-january-26-2020-1.5429251/housing-is-a-human-right-how-finland-is-eradicating-homelessness-1.5437402>
- Maheux, H., & Do, D. (2019). *Diversity of the Black population in Canada: An overview*. Ottawa: Statistics Canada. <https://www150.statcan.gc.ca/n1/pub/89-657-x/89-657-x2019002-eng.htm>
- McKinsey Global Institute. (2014). A Blueprint for Addressing The Global Affordable Housing Challenge. <https://www.mckinsey.com/~media/McKinsey/Featured%20Insights/Urbanization/Tackling%20>

[20the%20worlds%20affordable%20housing%20challenge/MGI\\_Affordable\\_housing\\_Full%20Report\\_October%202014.ashx](#)

Nasser, S. (2020, April 17). Early signs suggest race matters when it comes to COVID-19. So why isn't Canada collecting race-based data? CBC News. <https://www.cbc.ca/news/canada/toronto/race-coronavirus-canada-1.5536168>.

Onley, D. C. (2019). Report of the Third Review of The Accessibility For Ontarians with Disabilities Act, 2005. <https://files.ontario.ca/seniors-accessibility-third-review-of-aoda-en-2019.pdf>

Organization for Economic Cooperation and Development [OECD]. (2021). OECD Affordable Housing Database. <https://www.oecd.org/els/family/PH6-1-Rental-regulation.pdf>

Palm, M., Raynor, K., & Whitzman, C. (2018). *Project 30,000: Producing social and affordable housing on government land*. University of Melbourne. <https://apo.org.au/node/251431>

Palm, M., & Whitzman, C. (2020). Housing need assessments in San Francisco, Vancouver, and Melbourne: Normative science or neoliberal alchemy? *Housing Studies*, 35(5), 771–794. <https://doi.org/10.1080/02673037.2019.1636001>

Pomeroy, S. (2021). Toward Evidence Based Policy: Assessing the CMHC Rental Housing Finance Initiative. Ottawa: Carleton University Centre for Urban Research and Education. <https://carleton.ca/cure/wp-content/uploads/CURE-Brief-12-RCFI-1.pdf>

Pomeroy, S., & MacLennan, D. (2019). *Rental housing in Canada's cities: Challenges and responses*. Toronto: Maytree Foundation. <https://maytree.com/publications/rental-housing-in-canadas-cities-challenges-and-responses/>

Prentice, J., & Simonova, E. (2019). *Housing Conditions of Female-Led Households*. Ottawa: CMHC. <https://assets.cmhc-schl.gc.ca/sf/project/cmhc/pubsandreports/socio-economic-analysis/2019/socio-economic-analysis-housing-conditions-female-led-households-69509-en.pdf?rev=3c48e658-ed01-4ee0-b79d-84dcd86951d6>

Pringle, J. (2021, April 7). Ottawa home prices up 35 per cent in March as hot housing market continues. CTV News. <https://ottawa.ctvnews.ca/ottawa-home-prices-up-35-per-cent-in-march-as-hot-housing-market-continues-1.5378026>

Homeless Hub. (2021) Racialized Communities. <https://www.homelesshub.ca/about-homelessness/population-specific/racialized-communities>

Redden, M., Kia, H., Humble, Á. M., Stinchcombe, A., Manning, E., Ecker, J., de Vries, B., Gambold, L. L., Oliver, B., & Thomas, R. (2021). Housing as a determinant of health for older LGBT Canadians: Focus group findings from a national housing study *Housing and Society*, 1–25. <https://doi.org/10.1080/08882746.2021.1905996>

Rodrigues, C., Henderson, R., Bristowe, S., Ramage, K., Milaney, K., & Lucas, K. (2020). *Understanding Homelessness for Urban Indigenous Families: How Can We Envision Gendered and Culturally Safe Responses*. Toronto: Canadian Observatory on Homelessness Press. <http://www.deslibris.ca/ID/10105266>

Schwan, K., Versteegh, A., Perri, M., Caplan, R., Baig, K., Dej, E., Jenkinson, J., Brais, H., Eiboff, F., & Pahlevan-Chaleshtari, T. (2020). *The State of Women's Housing Need & Homelessness in Canada*. Toronto: Canadian Observatory on Homelessness Press. <https://womenshomelessness.ca/literature-review/>

Sekharan, V. (2016, February 3). Infographic: What is Functional Zero? Toronto: Homeless Hub. <https://www.homelesshub.ca/blog/infographic-what-functional-zero>

- Siddall, E. (2019, February 7). Our Goal: Housing Affordability for All. *The Housing Observer*. <https://www.cmhc-schl.gc.ca/en/blog/2019-housing-observer/president-ceo-evan-siddall-announces-ambitious-housing-target-2030>
- Sinha, M. (2015, November 30). Section 1: Prevalence and severity of violence against women. Ottawa: Statistics Canada. <https://www150.statcan.gc.ca/n1/pub/85-002-x/2013001/article/11766/11766-1-eng.htm>
- Springer, A. (2021). Living in Colour: Racialized Housing Discrimination in Canada. Toronto: Homeless Hub. <http://link.springer.com/10.1007/s10901-008-9118-9>
- Statistics Canada. (2021a, March 26). Socioeconomic profile of the lesbian, gay and bisexual population, 2015 to 2018. *The Daily*. <https://www150.statcan.gc.ca/n1/daily-quotidien/210326/dq210326a-eng.htm>
- Statistics Canada. (2021b). Selected Income Characteristics of Census Families by Family Type. <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1110000901>
- Statistics Canada. (2020a). Sex at birth and gender: Technical report on changes for the 2021 Census. <https://www12.statcan.gc.ca/census-recensement/2021/ref/98-20-0002/982000022020002-eng.cfm>
- Statistics Canada. (2020b, October 2). One in ten Canadian households living in core housing need in 2018. *The Daily*. <https://www150.statcan.gc.ca/n1/daily-quotidien/201002/dq201002a-eng.htm>
- Statistics Canada. (2019, September 27). Canadian Housing Statistics Program, 2018. *The Daily*. <https://www150.statcan.gc.ca/n1/daily-quotidien/190927/dq190927a-eng.htm>
- Statistics Canada. (2018a, May 17). The shift to smaller households over the past century. *The Daily*. <https://www150.statcan.gc.ca/n1/pub/11-630-x/11-630-x2015008-eng.htm>
- Statistics Canada. (2018b, July 25). Immigration and Ethnocultural Diversity in Canada. <https://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-010-x/99-010-x2011001-eng.cfm>
- Statistics Canada. (2017a). Focus on Geography Series. <https://www12.statcan.gc.ca/census-recensement/2016/as-sa/fogs-spg/Facts-can-eng.cfm?Lang=Eng&GK=CAN&GC=01&TOPIC=7>
- Statistics Canada. (2017b, November 15). Census of Population, 2016—Core housing need. <https://www12.statcan.gc.ca/census-recensement/2016/ref/dict/households-menage037-eng.cfm>
- Statistics Canada. (2017c). Census Profile, 2016 Census—Canada [Country] and Canada [Country]. <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=PR&Code1=01&Geo2=PR&Code2=01&Data=Count&SearchText=St.%20John%27s&SearchType=Begins&SearchPR=01&B1=Housing>
- Strobel, S., Burcul, I., Dai, J. H., Ma, Z., Jamani, S., & Hossain, R. (2021, January 20). Characterizing people experiencing homelessness and trends in homelessness using population-level emergency department visit data in Ontario, Canada. Ottawa: Statistics Canada. <https://www150.statcan.gc.ca/n1/pub/82-003-x/2021001/article/00002-eng.htm>
- Taylor, P. S. (2020, March 27). Want More Affordable Housing In Canada? Build More Houses. *C2C Journal*. <https://c2cjournal.ca/2020/03/want-more-affordable-housing-in-canada-build-more-houses/>
- Tranjan, R. (2020). *The Rent Is Due Soon: Financial Insecurity and COVID-19*. Ottawa: Canadian Centre for Policy Alternatives.

<https://www.policyalternatives.ca/sites/default/files/uploads/publications/2020/03/Rent%20is%20due%20soon%20FINAL.pdf>

Treasury Board of Canada Secretariat. (2021, April 26). Minister Duclos highlights housing investments in Budget 2021. <https://www.canada.ca/en/treasury-board-secretariat/news/2021/04/minister-duclos-highlights-housing-investments-in-budget-2021.html>

Vacon, D., Green, N., Lamrock, J., Sally, L., & Stewart, N. (2018). Precarious Housing and Homelessness Across Our Rural Communities. <https://static1.squarespace.com/static/5a65f576aeb625ade6b35818/t/5aa6b3ecf9619aaa-deb8a3e3/1520874495468/Precarious+Housing+and+Homelessness.pdf>

Vancity Credit Union. (2018, November). Backgrounder: Vancity's investment in affordable housing. <https://www.vancity.com/AboutVancity/News/Backgrounders/AffordableHousing/>

Vancouver Affordable Housing Agency (2020) Creating homes for people who live and work in Vancouver. <https://vaha.ca/>

Veterans Affairs Canada. (2020, March). Facts and Figures Summary. <https://www.veterans.gc.ca/eng/about-vac/news-media/facts-figures/summary>

Victoria State Government (2020, October 16). Planning Mechanisms for Affordable Housing. <https://www.planning.vic.gov.au/policy-and-strategy/affordable-housing>

Woolley, E. (2016, September 16). What are the housing needs of people with mobility issues? Toronto: Homeless Hub. <https://www.homelesshub.ca/blog/what-are-housing-needs-people-mobility-issues>

World Economic Forum. (2019). Making Affordable Housing a Reality in Cities. [http://www3.weforum.org/docs/WEF\\_Making\\_Affordable\\_Housing\\_A\\_Reality\\_In\\_Cities\\_report.pdf](http://www3.weforum.org/docs/WEF_Making_Affordable_Housing_A_Reality_In_Cities_report.pdf)

WOWA. (2021, May 4). Montreal Housing Market Report. <https://wowa.ca/montreal-housing-market>

Yuen, B. (2007, November). Squatters No More: Singapore Social Housing. Global Urban Development Magazine, 3(1). <https://www.globalurban.org/GUDMag07Vol3Iss1/Yuen.htm>

Zhang, B. (2020). Social policies, financial markets and the multi-scalar governance of affordable housing in Toronto. *Urban Studies*, 57(13), 2628–2645. <https://doi.org/10.1177/0042098019881368>

Zolo. (2021a, July). Vancouver Real Estate Trends. <https://www.zolo.ca/vancouver-real-estate/trends>

Zolo. (2021b, July). Toronto Real Estate Trends. <https://www.zolo.ca/toronto-real-estate/trends>