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Accessible Housing in Canada: An overview of policy initiatives and the need for renewed action Le logement accessible au Canada

John Gamey and Mikiko Terashima 回

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See table of contents

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Article abstract

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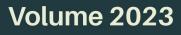
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Accessible Housing in Canada: An overview of policy initiatives and the need for renewed action

John Gamey^a, Mikiko Terashima^a ^D ^a *Dalhousie University*

Abstract

Currently there is limited research on accessible housing provisions for persons with disabilities (PWD) within Canada. The aim of our study is to provide an overview of how shortages of accessible housing are being addressed through the National Housing Strategy (NHS), with an additional look at provincial-level initiatives to tackle the issue, using Nova Scotia as a case study. As the NHS is only five years old, a thorough overview of its outcomes was not possible. However, our study revealed a few critical shortcomings regarding current initiatives—including ambiguous targeting for accessible housing development, lack of coordination between the housing and social services sectors, and (over-)reliance on market-based solutions. Broader understanding of accessible housing needs, more empirical examples of how different sectors can work together, and clarification of the costs and benefits of accessible housing are all necessary in order to more holistically address the accessible housing challenges. Wider application of accessibility design codes, alliance-building among vulnerable community groups to develop stronger voices, and enhanced monitoring systems are additional avenues for action.

Résumé

À l'heure actuelle, il existe peu de recherches sur les logements accessibles aux personnes handicapées au Canada. L'objectif de notre étude est de donner un aperçu des mesures prises pour remédier à la pénurie de logements accessibles dans le cadre de la stratégie nationale du logement (SNL) et d'examiner les initiatives prises au niveau provincial pour résoudre ce problème, en prenant la Nouvelle-Écosse comme étude de cas. La SNL n'ayant que cinq ans d'existence, il n'a pas été possible de dresser un bilan complet de ses résultats. Cependant, notre étude a révélé quelques lacunes critiques concernant les initiatives actuelles, notamment un ciblage ambigu pour le développement de logements accessibles, un manque de coordination entre les secteurs du logement et des services sociaux, et une (trop) grande dépendance à l'égard des solutions basées sur le marché. Une meilleure compréhension des besoins en matière de logements accessibles, plus d'exemples empiriques de la manière dont les différents secteurs peuvent travailler ensemble et une clarification des coûts et des avantages des logements accessibles sont tous nécessaires pour relever de manière plus holistique les défis liés à l'accessibilité des logements. Une application plus large des codes de conception de l'accessibilité, la création d'alliances entre les groupes communautaires vulnérables pour mieux se faire entendre et l'amélioration des systèmes de suivi sont des pistes d'action supplémentaires.

*Contact: Mikiko Terashima, School of Planning, Dalhousie University, 5217 Morris St., Halifax, NS, Canada, B3J 1B6

Phone: 902-494-3144 Email: <u>Mikiko.Terashima@dal.ca</u>

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Mots-clés:

logement accessible, examen des politiques et des programmes, personnes handicapées

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Introduction

Accessible housing is in critically short supply in Canada. Accessible housing here means housing built or modified to provide persons with disabilities (PWD) with appropriate features and aids that facilitate movement and different uses within their homes (DO-IT, 2022). At present, homes of many PWD do not have accessibility features that enable them to conduct daily activities with minimum or no help. In addition, PWD are more likely to live in housing that is unaffordable and in need of major repairs compared with the general population (Randle & Thurston, 2022).

The National Housing Strategy (NHS) is the most prominent housing policy that drives housing provisions for all of Canada, thus understanding the NHS framework is the first step for clarifying the mechanisms to address accessible housing in the country. The new NHS, launched in 2017, includes commitments to increasing housing that caters to various vulnerable population groups, including PWD. However, due to its relative newness, it is not vet known whether they will ultimately yield the target outcomes long-term. Granted, relatively little housing policy research exists in Canada that focuses on accessible housing in general, and it is worthwhile to synthesize the state of the initiatives related to accessible housing at this stage. The aim of our study, therefore, was to add clarity to existing programs aimed to increase accessible housing under the NHS. and how the federal and provincial-level policies and regulatory tools and initiatives have performed in light of accessible housing in recent years. Municipalities are primarily responsible for enforcement of building codes, bylaws related to occupancy and maintenance of rental housing, and control of housing locations through land use, though some of them are given more authorities in their province to carry out additional local-level programs (Pomeroy, 2021a). This paper can be a primer for municipal planners for the overall policy frameworks related to accessible housing at federal and provincial/territorial government levels, so that

they can better assist implementation of intended programs by formulating strategic actions in their realms of responsibility—such as zoning and bylaw changes to enable accessible housing development and setting relevant rules for rent control.

This paper is comprised of three main components. First, we discuss the background context around accessible housing needs for PWD in Canada, to highlight the rationale for our call for better understanding accessible housing-related policies and initiatives. Second, we provide a preliminary overview of relevant policy and regulatory frameworks, accessibility legislation, building codes, and policies and programs-with a focus on the NHS at a national level, and Nova Scotia as a case study at a provincial level. In addition, we discuss some of the key shortcomings identified from our overview. Then, in the Discussion section, we highlight some knowledge gaps that need to be filled through future research and potential planning actions to better devise strategies to address accessible housing needs in Canada.

Background

Persons with disability and accessible housing

Persons with disabilities (PWD) are one of the target groups identified under priority areas of action for the Canadian Mortgage and Housing Corporation (CMHC)-a federal agency that supports building and provisions of housing for residents in Canada through policy and programs (CMHC, 2018). Indeed, over one in five Canadians are identified as PWD (Statistics Canada, 2023), and the number will continue increasing with the accelerating population aging. Having housing that meets the needs of the PWD is of paramount concern as a "good home environments can help to alleviate or prevent illness and declining health" (Iwarsson, 2007, 78). Conversely, an inaccessible living environment contributes to barriers in conducting physical activities, obtaining their daily necessities, and socializing with family and friends-leading to a

'disablement' process (Verbrugge & Jette, 1994). Housing that does not accommodate different functionalities also prohibits people from continuing to live in their homes as they age or bodily conditions worsen, or even speeds up the rate of functional declines, leading to otherwise preventable illness to occur and requiring additional expenses for care (Corneliusson et al., 2019). Many older adults also face the challenge of finding suitable housing postretirement with the fixed income (Park & Seo, 2022). Moreover, persons with relatively high levels of functional limitations are often put in senior homes or institutions with 24-hour care due to lack of other options, even though they are still able to live independently with appropriate support and institutional care is significantly more costly to the governments.

Despite the recognition of PWD as a priority group by CMHC, and despite the implication on the health and economic consequences for this largest minority population and the healthcare costs to the governments (Slaug et al., 2017), the state of accessible housing in Canada has not yet been well investigated. Some reports that provide overviews of Canadian housing systems (Pomeroy, 2021a. Chisholm & Hulchanski, 2019, Stillo, Davenport, & Rheaume, 2023) point to affordability of homes, homelessness, and housing for Indigenous communities as historic and ongoing challenges that policies have responded to in varying degrees. Housing for PWD has typically been peripherally described in these documents as one of the vulnerable groups that the system needs to address, without further details on how their needs are different from other vulnerable groups, or how the system has addressed their needs thus far-with some exceptions for group homes for persons with developmental disabilities (CMHC, 2021).

The relative lack of attention to the housing needs of PWD is likely a reflection of how the planning field has framed the concept of disability in general (Terashima & Clark, 2021a). Scholarships on disability have evolved toward a social model, which posits that it is the (social) environment that disables people, and therefore the responsibility of enabling access to the spaces they live in lies in those who create the environment (Hemingway, 2011, Goering, 2015). The model contrasts with a more traditional medical model which places an individual's medical condition as the root of disability (Goering, 2015). Some scholars have conceptualized disability using a biopsychosocial model, which recognizes that disability is a product of physical (through medical conditions), environmental (through how social and built environment deny access) and emotional (through exclusion in society) experiences combined (Gatchel et al., 2007). Despite the advancement in the concepts of disability that clearly show the linkage with the way our environments are configured through planning processes, there has been a clear "paucity" of attention, (McCormick et al., 2019) or even "systematic inattention" (Ross et al., 2023) to the issues of disability in planning research and practice.

Canada's need for accessible housing

At present, accessible housing in Canada is in "critically short supply," forcing many with disabilities to live in homes that limit their independence (Vaughan et al., 2022). The Canadian Survey on Disability conducted in 2017 estimated that over 6.2 million Canadians have at least one disability – about 56% of whom had physical disabilities (Randle & Thurston, 2022). Of those with physical disabilities, nearly 45% required (did not have) accessibility features and aids in their homes (Randle & Thurston, 2022). The problem of accessible housing shortage will continue to grow in Canada, particularly with the rapidly aging population, among whom functional limitations such as difficulty with mobility, vision, hearing, and communication are more prevalent (Vaughan et al., 2022).

The burden of incurring costs to modify homes for accessibility is often greater for those with disabilities, since they tend to have lower-thanaverage incomes and less access to employment opportunities than the general population (CMHC, **Table 1.** Comparing housing affordability and suitability measures between Canadians with Disabilities and the general population(based on Randle and Thurston, 2022)

Measure	Canadians with disabilities			General population		
Spending 30% or more of income	25%	15.6%	44.4%	19.7%	14.2%	34.6%
on shelter costs	(Total)	(Owners)	(Renters)	(Total)	(Owner)	(Renter)
Living in unsuitable housing	5.9%	3.7%	10.4%	7.9%	5%	15.3%
	(Total)	(Owners)	(Renters)	(Total)	(Owners)	(Renters)
Dwelling in need of major repairs	9.9%	9.1%	11.5%	6.4%	5.4%	8.4%
	(Total)	(Owners)	(Renters)	(Total)	(Owners)	(Renters)
In core housing need	15.9%	7.4%	33.6%	10.1%	5.2%	23.8%
	(Total)	(Owners)	(Renters)	(Total)	(Owners)	(Renters)

2019). This can result in making their housing accommodations both inaccessible and unaffordable (CMHC, 2019). As identified in the 2017 Canadian Survey on Disability, a series of inequities in housing accommodations exist between those with disabilities and the general population. Borrowing from Randle and Thurston's (2022) research, Table 1 above shows that Canadians with disabilities are more likely to live in housing that is unaffordable, in need of major repairs, and be in core housing need than the general population. These inequities are amplified among Canadians with disabilities who are renters. Additional data analysis conducted by Randle and Thurston (2022) found that persons with mental health and cognitive disabilities had the highest rates of living in unaffordable housing, lived in dwellings in need of major repairs more often, and were more likely to be in core housing need.

In addition to these inequities, literature suggests that discriminatory views can also play a factor in denying Canadians with disabilities housing that meets their needs. For renters with disabilities, landlords may be less willing to rent or may outright deny tenancy applications on the basis of the individual's disability (Centre for Equality Rights in Accommodation et al., 2021; CMHC, 2019). In some cases, this has led to unequal distribution of available options in the rental market, where individuals with disabilities have access only to units overpriced, poorly maintained, that are or undesirable for their personal circumstances (CMHC, 2019). Some people have to resort to nursing and personal care homes until independent community living with appropriate support services becomes available, or often semi-permanently, "alternate forms experiencing of institutionalization" (CMHC, 2019).

Common definitions of 'accessible housing' used in policies

Various terms are used to refer to accessible housing—often interchangeably—which can lead to confusion in attempting to understand the varying degrees to which homes or dwelling units can be accessible. The five most common terms are shown in Figure 1. These terms are often used to differentiate the levels of accessibility that given homes and dwelling units may be equipped with.

First, a 'visitable' home includes basic accessibility features (e.g., a level entry, wider doors, access to an accessible washroom) that would allow most people including those using wheelchairs—to visit the home (Accessible Housing Network, 2023). On a similar level, 'barrier-free' is a term used to describe

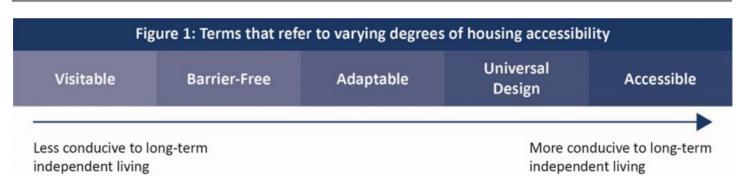


Figure 1. Terms that refer to varying degrees of housing accessibility.

different types of buildings broadly and typically refers to them being approachable, enterable, and usable for persons with physical and sensory disabilities (CCBFC, 2021). An 'adaptable' home refers to a home or dwelling unit built with features that can be easily modified at a minimal cost to meet occupants' changing needs over time (Government of British Columbia, 2022; Office of the Fire Marshal, 2019). More broadly, 'universal design' refers to a set of design principles that aim to ensure that spaces can be used and understood by anybody regardless of age, size, ability, or disability (Centre for Excellence in Universal Design, 2020; CMHC, 2023). While homes and dwelling units built under universal design principles may be accessible for some with disabilities, a home or dwelling unit that is 'accessible' considers the specific disability and commensurate needs of the occupant, often fitted with custom aids and features to optimize independence (DO-IT, 2022; Whole Building Design Guide, 2022).

CMHC has established sets of technical criteria on what is considered barrier-free, universal design, or accessible. These criteria are based primarily on Section 7 (Dwelling Accessibility) of the Canadian Standards of Accessibility (CSA B651: Accessible Design for the Built Environment), with some additional criteria applied to each category. For example, the criteria for barrier-free is comprised of 63 specifications from CSA, with one item derived from a best practice from elsewhere (e.g., any public amenities should be accessible for visitors) (Millstein, 2011). The Universal Design category includes 14 CSA-based specifications and seven best practicebased criteria (e.g., configure units to allow future installation of lifts) (Millstein, 2011). Accessible housing requires 104 CSA-based specifications with four best practice-based criteria (e.g., doorway width beyond minimum) (Millstein, 2011).

Key design features in accessible housing

For the most part, the accessibility features that are employed along the spectrum of accessible housing types are for those with disabilities related to physical functions, though the design features required for different disability types are increasingly understood in fields such as architecture, engineering, occupational therapy, and gerontology (Fänge & Iwarsson, 2005; Gitlin et al., 2014; Norin et al., 2017; Tchalla et al., 2012; Van Hoof et al., 2010). Table 2 below highlights some key features known to enhance accessibility in housing design, as identified through a review of the CMHC's Accessible Housing by Design fact sheets and related literature.

Physical disabilities refer to long-lasting conditions that limit basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying, and can also include sensory and visual conditions such as epilepsy, deafness, and blindness (Alberta Human Rights Commission, 2012; CMHC, 2022d). Nonphysical disabilities refer to long-term conditions that can affect cognitive ability, intellectual development, emotional development, though it sometimes could manifest in limitations of physical functioning. These disabilities include, for example: autism, behavior disorders, brain injury, Down syndrome, and fetal **Table 2.** Features that can improve accessibility for individuals with physical or developmental disabilities (CMHC, 2018d, 2018b,2018c, 2018a, 2019; Randle & Thurston, 2022; Vaughan et al., 2022)

Accessibility features for physical disabilities		Accessibility features for non-physical disabilities			
•	Home automation (e.g., for entertainment, appli- ances, communication, lighting, heating)	٠	Home automation (e.g., for entertainment, appliances, communication, lighting, heating)		
•	Open concept plans (e.g., fewer doors, hallways, and rooms that flow into one another) Wider doors	•	Sound-reducing techniques (e.g., non-reflective sound absorbent materials on floors, walls, and ceilings Consideration of spatial geometry to reduce echoes		
•	Main level bathrooms Walk-in baths or showers with ease of cleaning features (e.g. grab bars) Level or ramped approach to home entrance Lift devices or elevators Lowered/adjustable height counters	• • • •	Avoid use of fluorescent lights Use of soft-tone lights, indirect natural lighting Installation of dimmer switches Organizing spaces in sequential manner Separating areas of high stimulation from quiet areas Access to gardens or naturally landscaped areas		
•	Automatic doors	•	Units that dispense medications at specific times		

alcohol syndrome (Institute on Community Integration, n.d.). Some types of these conditions occur at a very early stage of people's lives (such as at birth and in infancy), whereas others are acquired through events such as automobile collisions and sports injuries, and yet many others occur due to natural aging processes. While quality of life and ability to live independently in homes for persons with non-physical disabilities are also influenced by design of housing they live in, existing policies related to accessible housing is mainly conceptualized as concerns for physical disabilities.

Clearly, the needs of PWD vary widely based on the types and levels of disability, and having these key features unlikely accommodate the needs of all PWD. Likewise, design of housing alone would not make these housing units truly 'accessible' if they are not affordable to persons facing financial challenges. Moreover, many PWD require assistive services in combination with homes equipped with some of these accessible features. How are these issues being addressed in the current framework of accessible housing-related initiatives in Canada?

Research Questions and Methods

We asked the following questions:

- 1) What is the framework of accessible housing policies and what are main programs implemented under the NHS at the national level?
- 2) What is the framework of addressing accessible housing in a provincial/territorial context?
- 3) What are some of the shortcomings evidenced in the frameworks at the national and provincial/territorial levels?

This study took an exploratory approach, conducting an environmental scan of literature including academic papers and policy-related documents at both federal and provincial levels. We primarily used library search engines we can access at Dalhousie University for academic papers and government agency websites for policy-related documents. Academic papers reviewed include those published in the last decade critiquing Canadian housing policy, mainly used to ground this study within wider housing discourse. Some news articles were also reviewed to further understand the context to these challenges in Nova Scotia. Together, the documents collected and reviewed were used to paint a picture of how governments have attempted to address accessible housing challenges and what gaps exist in these attempted initiatives. The policy-related documents include housing program and policy guidelines, progress reports, legislations, and building codes and standards.

Much of our investigation centered around the NHS—the chief housing policy in Canada. The NHS was launched only five years ago (2017), and reports regarding the impacts of various programs under the NHS are still limited. Therefore, this study only provides a preliminary overview of programs under the NHS that promote the provision of accessible housing for PWD in a relatively brief timeframe. We relied heavily on documents and reports published by the CMHC related to the delivery of programs and initiatives under the NHS.

Results

Accessible housing framework in Canada

Overarching accessibility policy and legislative frameworks

In 2010, Canada ratified its commitment to ensuring those with disabilities are provided with appropriate housing by agreeing to follow the UN Convention on the Rights of Persons With Disabilities (CRPD) (Randle & Thurston, 2022). Article 19 of CRPD requires that all states recognize the equal right of those with disabilities to choose their place of residence and to access a variety of personal and community support services to support living and inclusion in their communities (United Nations Convention on the Rights of Persons with Disabilities, 2006). Another key piece of accessibility legislation was passed in 2019 with the Accessible Canada Act, which set broad national accessibility goals to be reached by 2040 (Employment and Social Development Canada, 2022). At this time, several provinces had already enacted their provincial legislations-including Accessibility for Ontarians with Disabilities Act (2005), the Accessibility for Manitobans Act (2013), Act Respecting Accessibility in Nova Scotia (2017)-while Quebec had a longstanding Act to Secure Handicapped Persons in the Exercise of Their Rights since 1978. British

Columbia and Newfoundland and Labrador followed suit since, each enacting own legislation in 2021 (Accessible British Columbia Act and An Act Respecting Accessibility in the Province [of Newfoundland and Labrador], respectively).

While part of the Accessible Canada Act's mandate is to create a barrier-free built environment, this applies only to public buildings and spaces (Employment and Social Development Canada, 2022). Further, the Act does not have explicit focus on accessibility in housing as a way to ratify the CRPD, nor set specific goals related to creating new accessible housing stock. Instead, regulations and targets for accessible housing stock are found in the National Building Code of Canada and the National Housing Strategy.

Accessibility and the National Building Code of Canada

While the regulation of new building construction is a provincial/territorial responsibility, the National Building Code of Canada (NBCC) sets minimum standards that provinces and territories must follow in their respective building codes, including standards related to accessibility. Provinces and territories may simply adopt NBCC standards into their own codes, or, as many do, build upon the NBCC to further regulate building design and construction in their respective provincial contexts (CCBFC, 2021). Accessibility requirements are found in Section 3.8 of the NBCC, which primarily addresses public spaces (e.g., outside of homes, places where services are provided, workplaces). Section 3.8.2 requires that buildings in public areas be "barrier-free", meaning they must be built to ensure that people with disabilities can access buildings, circulate within them, and access their facilities (CCBFC, 2020). Examples of barrier-free design requirements found in Section 3.8.3 include:

- Minimum dimensions for features such as ramps, clear floor space, and doors;
- Type and location of door hardware, grab bars,

faucets, and accessible plumbing features;

- Maximum stopping force for doors and a canedetectable guard for when a door opens into the path of travel;
- Accessible controls for all types of building systems.

It is critical to note there that NBCC does not refer to Section 7 (residential accommodation) of CSA B651 in their definition of 'barrier-free,' unlike CMHC's definition. Nor do the requirements found in Section 3.8.2 and 3.8.3 of the NBCC apply to most residential buildings, including detached houses, semi-detached houses, houses with a secondary suite, duplexes, triplexes, townhouses, rowhouses, and boarding houses (Kurdi, 2022). As such, these requirements would only apply to larger residential buildings like apartment complexes and condominium buildings. In some cases, however, larger residential buildings can also be exempt from incorporating NBCC barrier-free requirements if the building has not been designated by a local authority with jurisdiction as having to be accessible (CCBFC, 2021).

These exemptions to barrier-free requirements in the NBCC have significant implications - chief among them being that many types of newly constructed housing units in Canada will be built without consideration to accessibility unless further provincial or territorial regulations have been enacted. Likewise, there is no requirement in place for the thousands of inaccessible housing units in Canada that were built before these NBCC regulations were put in place to meet newly enacted barrier-free standards (CCBFC, 2021). This is true even when inaccessible buildings undergo alterations or renovations. Interest is growing among a variety of stakeholders (e.g., governments, interest groups, and the public) to ensure that NBCC accessibility requirements are applied more widely across housing types (CCBFC, 2021).

Accessibility and Canada's National Housing Strategy (NHS)

Before exploring how different NHS programs address Canada's accessible housing stock, the conditions that led to the need for the NHS should be noted. From the early decades of the 20th century into the mid-1980s, federal housing policy in Canada was characterized by pronounced state intervention in the country's housing supply (Zhu et al., 2021). Funding for homeownership programs and initiatives was common, as well as funding for the development and management of public housing stock (e.g., housing owned and managed by governments) (Carroll & Jones, 2000). In addition, federal support for the development of community housing stock (e.g., owned and managed by non-profits or housing co-operatives) was well-sustained during this period, particularly in 1970s to 1980s (Carroll & Jones, 2000; Zhu et al., 2021).

From the mid-1980s into the early 1990s, federal housing policy began to shift away from prioritizing public and community housing, instead focusing most of the CMHC mandate on homeownership initiatives (Zhu et al., 2021, Sutter, 2016). This process culminated in 1993, when the federal government announced it would cease funding new public and community housing initiatives and 'download' responsibility for managing existing public and community housing portfolios to the provinces and territories (Thomas & Salah, 2021). Unsurprisingly, the production of new public and community housing units decreased significantly, while homeownership rates began to rise (Zhu et al., 2021). Further, as the CMHC began acting to meet the demands of consumers in the financial sector, a fundamental shift occurred wherein housing policy "considering housing as discourse began а commodity and a financial instrument instead of a public good" (Zhu et al., 2021, 3). Often referred to as the 'financialization' of housing, academics and researchers have noted that this shift in Canada's 21st

century housing landscape has contributed to the emergence of Real Estate Investment Trusts (REITs), "financialized landlords", gentrification, and the deregulation of tenant protections (August & Walks, 2018; Power & Skærlund Risager, 2019)—all of which have contributed to the affordability crises seen presently across Canada.

The rise of housing unaffordability over the past two decades has been detrimental for Canadians with disabilities. As noted previously, many Canadians with disabilities are in need of housing that is both affordable and accessible—two categories that require significant increases in supply. As such, it is imperative to understand how the NHS—which currently serves as the most powerful federal tool to increase accessible housing supply that is also affordable—has planned to address these needs, as well as to assess what progress had been made to date.

The NHS sets forth specific goals related to accessible housing and, in some cases, requirements that go beyond the NBCC's. Made official in 2017, the NHS started out as a 10-year, \$72 billion plan comprised of a variety of programs and funding streams to "create a new generation of housing in Canada" that is "sustainable, accessible, mixedincome, and mixed-use" (Government of Canada, 2016, 4). By taking a "rights-based" approach to

 Table 3. National Housing Strategy Priority Groups

National Housing Strategy Priority Groups

•	survivors of gender-based violence

- seniors
- Indigenous Peoples
- young adults
- people with disabilities
- individuals dealing with mental health and addiction issues
- veterans
- 2SLGBTQIA+ communities
- racialized groups, including Black Canadians
- recent immigrants, including refugees
- people experiencing homelessness

housing, the NHS aims to improve housing outcomes for a variety of different populations it classifies as priority groups including seniors, people with developmental disabilities, and people with physical disabilities (CMHC, 2022d). The funding was increased to \$82 billion in 2023. Table 3 shows the list of all priority groups identified at the inception of the NHS (Government of Canada, 2016).

Three categories of NHS programs and initiatives related to accessible housing

There are three main categories of NHS programs and initiatives related to accessible housing: 1) those concerned with creation of accessible housing units through new construction, renewal, and repair; 2) those concerned with supporting the community housing sector; and 3) those concerned with data, innovation, and research.

1) Programs and initiatives concerned with new construction, renewal, and repair

The three programs and initiatives receiving the highest levels of funding through the NHS are focused on the construction, renewal, and repair of housing units. Their primary purpose is to incentivize private sector developers to build more housing with funding support that otherwise might not be built (or renewed or repaired)—such as affordable and accessible rental housing. These programs and initiatives are:

- a. The National Housing Co-Investment Fund (NHCF)
- b. The Rental Construction Financing Initiative (RCFI)
- c. The Rapid Housing Initiative (RHI)

a. **The National Housing Co-Investment Fund** (NHCF) provides capital contributions and low-cost loans to provinces and territories, municipalities, non -profits, housing co-operatives, and the private sector for the creation of new housing units and the repair and renewal of existing affordable and/or community

housing units (Government of Canada, 2016). The NHS has committed \$13.7 billion to the NHCF, which intends to create 60,000 new units of housing and repair up to 240,000 units of existing affordable and community housing over a ten-year period (CMHC, 2022b). In terms of accessibility, this fund sets the target of building 2,400 new affordable units disabilities for those with developmental (Government of Canada, 2016). The NHCF also requires that developers meet certain accessibility standards in both new construction and renewal projects. For new construction, developers have the choice between (a) ensuring 20% of the project's units meet accessibility standards and making common areas barrier-free, or (b) ensuring the entire project has full universal design (CMHC, n.d.-a). For repair and renewal projects, developers must ensure that 20% of the project's units meet accessibility standards and that common areas are barrier-free (CMHC, n.d.-b).

While it has been operationalized for over four years, it is difficult to ascertain the degree to which the NHCF has met its goals and targets as it relates to accessible housing. In its most recent NHS progress report (December 2022), the CMHC reported that 845 new units for people with developmental disabilities are at the 'commitment' stage of development but provides no data on units under construction or that have been built as a result of the fund (CMHC, 2022b). Further, there is no confirmation or reporting of whether 20% of the 28,985 units currently set for new construction or the 111,752 units set for repair/renewal will meet accessibility standards (CMHC, 2022b).

b. The Rental Construction Financing Initiative (RCFI) provides loans to municipalities, not-forprofit developers, and private developers to support their construction of new rental housing in Canada (CMHC, 2021c). Any building constructed through this initiative must have at least five units and be a "standard apartment," which excludes retirement homes, long-term care facilities, student housing, single room occupancy facilities, and supportive housing (CMHC, 2021c). The NHS has committed \$25.75 billion to this initiative over an 11-year period (CMHC, 2022b), making it the "single largest financing program in the NHS" (Pomeroy, 2021b).

While there are no targets set for the construction of new accessible rental units through this initiative, any project receiving funding is required to make 10% of the units within the project accessible based on local accessibility standards (e.g., municipal or provincial/territorial) (CMHC, 2021c). In addition, any building constructed through the initiative is required to have barrier-free common areas (CMHC, 2021c). Like in its progress reporting for the NHCF, the CMHC has not published any study confirming whether 10% of the 39,682 rental units currently set to be built through the Rental Construction Financing Initiative are meeting the prescribed accessibility requirements. Further, RFCI has been criticized for setting the rent cap for required 'affordable' units to be higher to avoid disincentivizing developers from building rental housing. According to the benchmark set in the program, no city would have lower than \$2,000 for rent in these housing units (Pomeroy, 2021b), in effect they are not affordable to many low-income citizens.

c. The Rapid Housing Initiative (RHI) was created in 2020 as part of the NHS to provide funding aimed at expediting the delivery of new affordable housing units for groups that were identified as vulnerable in the NHS (CMHC, 2021b; Office of the Prime Minister, 2020), largely in response to the early impacts of the COVID-19 pandemic. The NHS committed \$2.5 billion to the RHI between 2020 and 2022 with the goal of creating 7,500 new affordable housing units across the country (CMHC, 2022b). While every unit constructed under the Rapid Housing Initiative must be affordable, only 5% of the units are required to be accessible (CMHC, 2021b). As of 2021, the RHI was on pace to meet its target of creating 7,500 new affordable housing units, with the program currently committed to support the construction of 10,249 units (CMHC, 2021b). **Table 4.** Accessibility in NHS New Construction, Renewal, and Repair Programs (CMHC, n.d.-a, n.d.-b, 2018e, 2018g, 2021c, 2021b, 2022b)

Program/ Initiative	Total Funds Allocated (2017)	Accessibility Targets	Accessibility Require- ments	Progress on Accessible Units
a. National Housing Co- In- vestment Fund (NHCF)	\$13.17 billion	2,400 new affordable units for peo- ple with devel- opmental disa- bilities	(a) 20% of units must be accessible with barrier- free common areas or (b) entire project has univer- sal design	845 new units for people with developmental disabili- ties in "commitment" phase (no data on how many are affordable)
				5,925 new units and 40,376 repair units for seniors (no confirmation on degree of accessibility/affordability)
b. Rental Construction Fi- nancing Initiative (RCFI)	\$25.75 billion	No report found	At least 10% of units must be accessible (specifically mentions by local stand- ards)	No report found
c. Rapid Housing Initiative (RHI)	\$2.5 billion	No report found	5% of units must be ac- cessible	1,301 for seniors at varying degrees of completeness (no confirmation on degree of accessibility)
d. Affordable Housing Inno- vation Fund (AHIF)	\$759.1 million	No report found	10% of units must be ac- cessible	No report found
e. Federal Lands Initiative (FLI)	\$202 million	No report found	(a) 20% of units must be accessible with barrier- free common areas or (b) entire project has universal de- sign	No report found

However, no data has been available on the number of housing units that have been developed through the RHI for those with disabilities (CMHC, 2022b). Further, despite reporting that 1,301 of the 10,249 units set to be built through the RHI are for seniors, the degree to which these units will be accessible was not noted in the report (CMHC, 2022b) and the current status is unknown.

There are two additional NHS initiatives concerned with the construction of new housing units with accessibility requirements: the Affordable Housing Innovation Fund (AHIF) and the Federal Lands Initiative (FLI). The accessibility components of these two and above three programs are summarized in Table 4. The AHIF is targeting the construction of 14,800 new housing units (4,000 of which are affordable), requiring that 10% of units in a project are accessible (CMHC, 2018e). The FLI is targeting the construction of 4,000 new housing units, where developers have the choice between (a) ensuring 20% of the project's units meet accessibility standards and making common areas barrier-free, or (b) ensuring the entire project has full universal design (CMHC, 2018g). Like some of the larger NHS programs focused on the creation of new housing units, there is no reporting as to whether accessibility requirements are being met through these initiatives.

2) Community housing support programs and initiatives

Although significantly smaller than market-housing-

Program/Initiative	Accessibility- and Disability-Focused Projects and Works
a. Solutions Lab	Co-Creating Housing Solutions: Enacting Opportunities for Individuals with Fetal Alcohol Syn- drome
	Social Financing for Social Inclusion
	A Home in a Neighbourhood Where I Belong
	Affordable Housing for Social Inclusion
	Housing through an Autism Lens: A Pathway from Crisis to Solutions
	 Accessible, Affordable, Inclusive: Housing Solutions that Meet the Needs of People with Devel- opmental Disabilities
	Exploring the RDSP for Homeownership and Housing Stability
b. Demonstrations	SAFERhome Universal Design Affordable Housing Demonstration
Initiative	My Home My Community: Pathways to Homeownership National Demonstration Initiative
	 My Home, My Community: Pathways to inclusive affordable housing
	Transformation towards Universal Design

Table 5. Accessibility- and disability-focused projects and works completed through NHS data, innovation, and research programs andinitiatives (CMHC, 2021a, 2022c)

based programs, some funding was allocated to community housing support under the NHS. The largest community housing sector initiative-the Federal Community Housing Initiative (FCHI)-sees the NHS committing \$618.2 million in rental assistance that is expected to support up to 55,000 community housing units (CMHC, 2022b). The NHS also aims to increase knowledge and technical capacity in the community housing sector through the Community Housing Transformation Centre (CHTC), which takes the form of a non-profit organization (CMHC, 2022b). The CHTC provides grants to community housing organizations to support their completion of projects that aim to incorporate new and/or innovative approaches and tools to the community housing sector (CHTC, 2021).

For the most part, the NHS funding streams and initiatives focused on providing support for the community housing sector speak little on targets and goals for accessible housing. For instance, despite the FCHI being the largest community housing sector initiative in the NHS, there is no indication that any part of this program is specifically aiming to provide support for persons with disabilities living in community housing (CMHC, 2022a, 2022b). While the CHTC has a number of priority areas for its projects, none speak directly to the provision of accessible housing through the community housing sector (CHTC, 2021). Finally, the NHS's Community-Based Tenant Initiative Fund (CBTIF) which aims to empower tenants in their advocacy for new and improved community housing, participance in governance, and role in developing housing policy makes no note of how this initiative could be used for those with disabilities (CHTC, 2022).

3) Data, innovation, and research

At the time of this research, implementations of ten different programs and initiatives were reported as part of the NHS to develop new data collection tools, demonstration projects, and efforts to spur more housing-related research, both within and external to government. Various facets of accessible housing have been explored through these programs and initiatives, particularly in the Solutions Labs (a) and Demonstrations Initiative (b). A list of accessibilityand disability-focused projects and works that have been completed as a result of these two initiatives are shown in Table 5.

Both the Solutions Lab and Demonstrations Initiative produced some important knowledge that informs future efforts for accessible housing provision in Canada. For instance, the My Home, My Community: Pathways to inclusive affordable housing project identified a series of approaches for increasing the quantity and quality of housing stock for individuals with developmental disabilities. Partnerships with for-profit and non-profit developers at early development stages were found to be less costly for organizations aiming to create new units geared towards individuals with disabilities, particularly when compared to the organization directly developing or purchasing the units itself. This was found to be a suitable approach in urban areas with high development activity, particularly where developers are incentivized to work with community organizations (My Home. Mv Community, 2020). To support organizations seeking to create partnerships with developers, My Home, My Community (2020) developed a toolkit referencing a series of best practices and strategies.

Other projects focused on site- and design-level aspects of accessible housing, including the Transformation towards Universal Design project. The Société Logique—a Montreal-based non-profit group completed a demonstration of renovating an apartment unit destroyed by a fire using universal design principles. Through this renovation, Société Logique aimed to encourage demand for housing incorporating universal design, show private and nonprofit developers how homes incorporating universal design can be built, and, most importantly, encourage decision makers to adopt regulatory measures that promote universal design in the development of affordable and community housing (CMHC, 2020; Société Logique, 2020).

Framework of addressing accessible housing in a provincial/territorial context: Nova Scotia as a case study

Nova Scotia's needs for accessible housingcase in context

Like in many provinces and territories, Nova Scotia has experienced a severe shortage of housing that caters to persons with disabilities. According to CMHC's data (2022), about 18.3% of persons identifying as having disabilities in Nova Scotia are in core housing need-one of the highest rates of all provinces and territories. Another data from the Social and Affordable Housing Survey by CMHC (2023) also revealed that over 80% of residential buildings containing subsidized units in Nova Scotia had no accessibility features installed (e.g., elevators, access ramp, entrance without steps, scooter storage, etc.). This rate is higher than the rates for any other provinces (data for three territories were inconclusive due to small sample sizes). In other words, Nova Scotia's lack of accessible and affordable housing for their PWD residents is generally more severe than other parts of Canada.

Nova Scotia has also struggled in providing housing for persons with relatively severe disabilities—many of whom require ambulatory services but not 24 hours of care in institutional settings. Despite the fact many other Canadian provinces and territories began the process of deinstitutionalization (i.e., moving those with disabilities into community living arrangement) in the early 2000s (Barken, 2013), Nova Scotia has made little progress in meeting the goals to create housing for these individuals in more community-based settings such as group homes and small option homes (Nova Scotia Department of Community Services, 2022b; Tutton, 2021).

Providing housing to individuals in communitybased settings means also arranging the support for daily activities (living support) situated in a community setting. Services associated with at-home or living support for persons with disabilities are typically provided through social welfare and/or public health programs under the provincial and territorial mandates. Therefore, provincial/territorial level mechanisms cater to housing needs for PWD through two main avenues, tasked to address both physical housing availability and availability of social and health services that support independent living of PWD in a given home. As in the overview of the national-level framework above, this section first summarizes the legislative and policy frameworks, and the province's building code as a regulatory tool associated with accessible housing in Nova Scotia. Next, we illustrate how policies and initiatives related to these two realms of services operate in Nova Scotia. In addition, we describe how the CMHC-Nova Scotia bilateral programs under the NHS have rolled out thus far to overview how the national and provincial efforts are coordinated.

Legislative and policy frameworks

In 2017, Nova Scotia became the third Canadian province to adopt accessibility legislation by passing the Accessibility Act, which recognized accessibility as a human right and set the goal of making Nova Scotia accessible by 2030 (Department of Justice, 2018). The Accessibility Act identifies six areas where provincial accessibility standards are to be developed-built environment, delivery and receipt goods and services, information of and communication. public transportation and transportation infrastructure, employment, and education (Department of Justice, 2018). Here, the built environment refers to public buildings, streets, sidewalks. and shared spaces (Nova Scotia Accessibility Directorate, 2019)-meaning private homes and dwellings would fall outside of the purview of any standards developed through the Accessibility Act. The Act mandates all public institutions in the province to develop and make publicly available their accessibility plan that aims to achieve the goal of the Act encompassing the six areas.

Accessibility and the Nova Scotia Building Code Regulations (NSBCR)

Like the National Building Code of Canada (NBCC), accessibility requirements are found in the Nova Scotia Building Code Regulations (NSBCR). Accessibility requirements in Section 3.8.2 mirror those found in the NBCC, and most residential buildings are exempt from meeting the requirements, including detached houses, semi-detached houses, houses with a secondary suite, duplexes, triplexes, townhouses, rowhouses, and boarding houses (Nova Scotia Building Code Regulations, 2022). The NSBCR does, however, go a step further than the NBCC by including an additional section on adaptable housing requirements, which do apply to the above exempted residential building types. In the NSBCR, adaptable housing refers to "adding features that make it easier and less costly to adapt to the specific needs of the resident(s) as their needs evolve without costly changes" (Office of the Fire Marshal, 2019). Examples of these adaptable housing requirements include (Office of the Fire Marshal, 2019):

- At least one entrance with a width of no less than 900mm, lever-type opening hardware, electrical switches at accessible heights;
- Wider doors and corridors can be optionally installed to be made barrier-free from a sidewalk or parking area;
- Reinforcement in the wall to allow for grab bar installation and lower plumbing rough-in for kitchen sinks.

For the construction of new multi-unit residential structures, developers have the option of either (a) providing one barrier-free unit per 20 units (i.e., must meet all requirements in Section 3.8.2), or (b) having all units comply with NSBCR adaptable housing requirements (Office of the Fire Marshal, 2019).

Avenues of addressing accessible housing needs in Nova Scotia

In Nova Scotia, there are two main avenues by which the province can administer programs and initiatives to address the need for accessible housing: 1) Housing Nova Scotia (HNS), and 2) the Disability Support Program (DSP).

1) Housing Nova Scotia (HNS) accessibility programs and initiatives

HNS-the provincial agency responsible for

providing low- and moderate-income Nova Scotians with affordable housing solutions—administers over a dozen programs that aim to provide, for example, funding support for the development of new affordable units, direct benefits and rent subsidies for low-income households, shelter enhancement, housing for seniors, and landlord-targeted programs (HNS, 2022c). In this regard, HNS's role is akin to that of CMHC at the national level.

Of these HNS programs, two are specifically concerned with accessible housing: the Disabled Residential Rehabilitation Assistance Program (RRAP) and the Access-A-Home Program. The former offers a maximum loan of \$24,000 to landlords with low-income tenants or low-income homeowners to modify homes to be more accessible for residents with disabilities (HNS, 2023c). The latter offers a non-repayable grant of up to \$7,000 for homeowners to help make their home wheelchairaccessible (HNS, 2023a). We were unable to locate any data on the number of homes that have benefitted from either of these two programs.

The degree to which accessible housing is addressed in some of HNS' larger scale programs should also be noted. Through the Affordable Housing Development Program (AHDP), HNS provides financial support to private and non-profit developers for the construction of new affordable housing units, with the aim of increasing the supply of "affordable, accessible, and energy efficient homes" (HNS, 2023b). Their affordable rates are set at "at least 20% below average or median market rent for the project location" (Nova Scotia, 2022). Despite the stated intention of increasing the supply of accessible homes, the AHDP does not require developers to build accessible units beyond the previously noted accessibility requirements found in the NSBCR (HNS, 2022b). Similarly, the Land for Housing Initiative (LHI)—which supports the creation of new affordable housing units by making provincially owned land available for housing development-requires that developers only meet minimum NSBCR standards (HNS, 2022d). Both

programs appear to address accessibility through incentivization, with each programs' guidelines stating that applications for projects exceeding accessibility requirements will be prioritized (HNS, 2022b, 2022d).

Of all the other HNS programs and initiatives, those targeted at seniors can be most closely tied to having aims related to accessibility. Both the Home Adaptations for Seniors' Independence and The Senior Citizens Assistance Program offer forgivable grants (\$3,500 and up to \$6,500, respectively) to help seniors make home adaptations and repairs that will allow them continue living in their homes as they age (Department of Municipal Affairs and Housing, 2022; HNS, 2023d).

HNS also manages the CMHC-Nova Scotia bilateral agreement programs, thus playing a critical role in implementing initiatives under the NHS in alignment with both federal and provincial goals for housing. HNS manages the delivery of three programs through bilateral cost-sharing programs with the CMHC: the Nova Scotia Priorities Initiatives. the Federal Community Housing Initiative, and the Canada-Nova Scotia Targeted Housing Benefit (CMHC, 2018f). In delivering these three programs, the CMHC requires that HNS creates an action plan outlining how mutually agreedupon housing targets will be met and provides progress updates on these targets every six months (CMHC, 2018f). In this action plan, HNS is required to describe Nova Scotia's local housing needs and how planned HNS actions will ensure that housing need is reduced and/or eliminated. In terms of accessible housing, HNS' progress reports must include targets and progress updates for units created through these three programs that are considered to be accessible (CMHC, 2018f).

In its most recent action plan for these bilateral programs, HNS does state that increasing the supply of accessible and affordable housing is a priority, noting the high percentage of Nova Scotians living with a disability and the Province's aging demographics (HNS, 2022a). In terms of targets and

 Table 6. Support options, programs and living arrangements available under Nova Scotia's Disability Support Program (Department of Community Services, 2022a)

Support Option	Program/Living Arrangement	Description
(1) Community Based Options (For those liv- ing in private dwellings)	Flex Individualized Funding Program (Flex)	Provides individualized funding used to (a) purchase supports specific to a partici- pant's disability-related needs and goals, (b) promote the participants inde- pendence, self-reliance, and social inclusion, and (c) offer an alternative to, prevent or delay a participant's placement in a DPS funded residential support option.
	Independent Liv- ing Support Pro- gram (ILS)	Targeted at DSP participants requiring some support to live on their own. Pro- vides funding for participants to receive hours of support from an approved service provider.
	Alternative Family Support Program (AFS)	Provides an approved private family home where support is provided for up to two persons who are not related to the Alternative Family Support Program provider.
(2) Community Home Options	Group Home	Provides participants with residential living support, learning and assistance with their activities of daily living, routine home, and community activities.
	Developmental Residence	Provides 24/7 residential support and supervision for four or more persons with intellectual disabilities who need moderate support with activities of daily living and high support with routine home and community activities. Also support the development of participants' interpersonal, self-care, domestic and community- oriented skills.
	Small Option Home (SOH)	Provides residential home support for three to four participants with varying types of disability.
(3) Residential Care Facilities	Residential Care Facility (RCF)	Provides participants with residential living support, minimal support with their activities of daily living, routine home and community activities.
(4) Adult Resi- dential/ Reha- bilitation Cen-	Adult Residential Centre (ARC)	Provides support to participants who need high levels of supervision and support in their activities of daily living, routine home and community activities. Staffing is provided 24/7.
tre Options	Regional Rehabili- tation Centre (RRC)	Provides both rehabilitation and developmental programs to participants who require an intensive level of support and supervision such as severe/multiple behaviour challenges. Staffing is provided 24/7.

progress for accessible housing units, HNS' action plan targets the construction of 10 new accessible housing units for the 2022/23 year and 90 by 2027/28 (HNS, 2022a). Further, the action plan notes that plans are in place to improve accessibility in 40 existing public housing buildings (HNS, 2022a).

A notable omission in the action plan is the need to find suitable community-based housing options for the roughly 900 individuals currently housed in institutional settings—some of whom will be best served with non-institutional settings with accessibility features and ambulatory support services. Further, there is no explanation for how the target of 90 newly constructed accessible units by 2027/28 was set, or whether this target remains appropriate.

2) Disability Support Program

Whereas HNS programs and initiatives focus on providing financial support for the creation of new accessible units or for adapting existing units, the Disability Support Program (DSP) provides living support for Nova Scotians with disabilities through residential and at-home support programs. Through the DSP, Nova Scotians with disabilities can request for support through four possible options: (1)

Accessible Housing in Canada

Community Based Options (2) Community Homes, (3) Residential Care Facilities, and (4) Adult Residential/Regional Rehabilitation Centres (licensed) (Department of Community Services, 2022a). A summary of the different programs and living arrangements that fall within each of these four options are detailed in Table 6.

The DSP has struggled to manage these four support options over the past ten years. The first two options-Community Based and Community Home-maintain long waitlists with limited capacity to offer Nova Scotians with disabilities appropriate services or living arrangements that would allow them to live independently or semi-independently in communities of their choice. Moreover, both Residential Care Facilities (RCF) and Adult Residential/Rehabilitation Centres (ARC) are still listed as options for housing those with disabilities in Nova Scotia who live independently with ambulatory care.

While the number of Nova Scotians with disabilities housed in institutional settings saw a modest decline to an estimated 900 in 2021, it was found that no institutional facilities had yet to be closed (Disability Rights Coalition, 2021). It was also noted that the waitlists for community-based housing options and/or supports increased by 74% since 2013 (Disability Rights Coalition, 2021). As of 2021, there were 1,915 individuals on DSP waitlists—a staggering total which not only makes the task of closing institutions near impossible for the Province, but also requires that individuals with disabilities are housed indefinitely in institutional-like settings like hospitals and nursing homes (Disability Rights Coalition, 2021). The number of additional small option homes created in the last decade is minimal, while waitlists for SOHs have grown more than any other category (Disability Rights Coalition, 2021).

Following a legal challenge launched by three individuals with disabilities, long delays in finding appropriate community-based housing options and supports were found by the Court of Appeal of Nova Scotia to violate human rights and be indicative of systemic discrimination against people with disabilities (Tutton, 2022). After failing to challenge the decision, the Province declared it would "negotiate a remedy to the problem" with renewed efforts to clear DSP wait lists (Armstrong, 2022). Part of these renewed efforts included the June 2022 announcement that the Province would provide an \$8.3 million boost in 2022 and \$17 million in 2023 to clear the 400 person long Independent Living Support Program waiting list (Laroche, 2022).

Shortcomings identified in the system to address accessible housing needs thus far

Our review of key documents about federal and provincial initiatives identified some apparent shortcomings with respect to addressing the needs for accessible housing. We highlight the following: 1) ambiguous target setting; 2) lack of coordination for housing and social services in social housing programs; and 3) over-reliance of market mechanisms for solutions to (affordable) accessible housing.

1) Ambiguous target setting

While the need for new accessible housing stock has been acknowledged in official policies, programs, and regulations in Canada and Nova Scotia, this study found that the creation of new accessible housing stock appears to be occurring through a fractured and unreliable process. For example, 20% of the 28,985 new constructions (=5,797) and 10% of 111,752 renewed and repaired affordable housing (=11,175) targeted under the National Housing Co-Investment Fund, and 10% of 39,682 targeted under the RCFI (=3,968) would yield about 21,000 housing units that are considered accessible according to the NHS criteria. How these numbers relate to the estimates of PWD in core housing needs (about 15.9% or 985,800 in Canada based on the 2017 Census) is ambiguous-particularly without clear breakdown of these numbers by province/territoryand the target seems low. Further, there is no confirmation as of yet whether these targets are achievable on schedule (CMHC, 2022b).

Similarly, the rationale for 90 new accessible housing units and improvement on 40 existing units by 2027/28 as targets in Nova Scotia has been unclear and does not seem to meet the demands based on what the population data suggests. As for CMHC-Nova Scotia bilateral programs, the targets set to meet the NHS expectations are not transparent due to lack of reporting available to the public. While certain bilateral NHS community housing programs do require progress reporting on the number of accessible units they are creating, there is no overarching NHS goal for creating accessible units through these programs, nor there is any clear information regarding how provincial targets have been set.

As for the plan within the NHS to increase housing units that cater to different types of PWD, the only explicit target reported is on group homes for individuals with developmental disabilities (to create 2,400 new units). It is also unclear whether this number is founded on the population data and/or the actual counts of individuals waiting to access group homes. Nevertheless, this specific target was likely made possible because of the well-established group home operation specific to this group and a wealth of research in areas such as social work and rehabilitation science (CMHC, 2021; Lo Chan, 2018; Shipton & Lashewicz, 2016) which inform how social services and housing sectors can work together, and what human and financial resources are required to implement a given operation. Without such empirical knowledge, it would be challenging to estimate the operating budget for programs that target other types of PWD.

2) Lack of coordination for housing and social services in social housing schemes

Although the conditions likely vary by province and territory, it appears, at least in Nova Scotia, the process of developing and operating social housing for PWD seems to be largely disjointed.

We found virtually no documentation that clearly maps out 'who's who' within the system of housing operations in conjunction with assistive services. In Nova Scotia, near impossibility of navigating through uncoordinated processes has been documented by a local disability advocate (Powley, 2023), including obtaining permits to start a small-option home, obtaining financial assistance to equip the home with necessary accessibility features and devices, and arranging necessary living support staff. Powley's book recounts the inexperience of housing, municipal and provincial planning, and community sectors, service operating under unclear understanding of who would be responsible for what aspects of the process of approving a small option home for a young PWD group (Powley, 2023).

NHS's Federal Community Housing The Initiative (FCHI) is a promising area that could help build a better understanding of how these housings for PWD can be created and operated through partnership among stakeholder and service providers. The Community Housing Transformation Centre (CHTC) born out of the FCHI supports capacity building of community organizations, providing knowledge tools for navigating various grants and managing social housing operations (CHTC, 2023). Nova Scotia participates in the Centre's grant program and provides funding supports for capacity building, planning and predesign of housing, and research (NSAHC, 2021). Clear efforts have been made to build knowledge to grant access foster more streamlined and communications between policies and social housing sectors.

However, still missing is any reporting of actions specific to the housing needs unique to PWD within the community housing schemes. While PWD are increasingly recognized in reporting of these initiatives as one of the vulnerable groups that social housing will cater to (CTHC, 2020; Community Living Ontario, 2021), there is little information regarding how these social housing projects can incorporate accessibility in their design, or how allied supportive services needed for some PWD can be provided in conjunction with these social housing

Accessible Housing in Canada

operations.

3) Over-reliance of market mechanisms for solutions to (affordable) accessible housing

Under both federal and provincial/territorial programs, creation of accessible housing units has been largely set to be addressed through the market housing mechanism. A significant portion of the budget for the NHS has been dedicated to programs that encourage affordable rental housing development, much larger than funding to support non-market housing. In these programs, a certain number of these affordable residential units are required to be accessible, barrier-free, or created using universal design principles, as a condition for financial assistance, thereby attempting to secure a certain number of affordable housing units for PWD in the rental market.

The target beneficiaries of these programs are, however, largely those with relatively high economic means, as their 'affordable' rates set are often still beyond the rates people in core housing need can afford, as in the case of the RCFI. These programs also seem to assume that the potential PWD residents in these units possess a high level of ability for independent living, as there is no clearly prescribed mechanism to coordinate ambulatory support services along with the housing units. Some financial assistance to install accessible features in homes does exist at provincial and territorial level, as in the case of Nova Scotia. These one-time financial aids to supplement the costs of accessible features in homes, such as ramps and accessible washrooms, have been helpful to many residents to continue living in their own homes. However, take-ups on these schemes by landlords have been limited, and it will unlikely help renters directly.

More broadly, researchers have posited that NHS programming has had little effect on housing affordability, nor has it lifted households out of core housing need as anticipated (Gahagan & Thomas, 2022; Gorenkoff, 2023). It has also been found that federal budgets allocated to affordable housing through the NHS remain low when compared to eras where sustained federal engagement on affordable housing matters was present (e.g., 2017 budget was estimated to be less than 20% of federal spending on affordable housing in 1976) (Zhu et al., 2021). While criticism of the NHS is typically focused on its inability to improve housing affordability, there appears to be little discussion on the NHS' ability to improve housing outcomes for the priority groups it has named in its official documents. This is especially concerning for those with disabilities, as their housing needs often go beyond the threshold of affordability.

Discussion-gaps in knowledge and future strategies

The primary purpose of this paper was to add clarity to the system of addressing accessible housing needs in Canada, through a preliminary overview on policies and programs at the federal and provincial level where we investigated Nova Scotia as a case study for the latter.

Federally, three main avenues of addressing the needs for accessible housing exist under the NHS, often in conjunction with the scheme of increasing affordable housing. These avenues include: 1) funding programs for rental housing development (new construction, renewal, and repair) with a requirement to create a certain number of accessible units; 2) support for community housing in forms of rent assistance and capacity building for community housing organizations; and 3) research and demonstration initiatives to inform future actions. In the case of Nova Scotia, the needs for accessible housing have been mainly addressed through: 1) provisions of provincial grants to residents and landlords to install accessible features in housing units and CMHC-Nova Scotia bilateral programs to promote developments that include affordable and accessible housing units; and 2) disability support programs that provides assistive care and care-related financial aids, based on the type of living arrangements (i.e., living with family, group homes, residential care facilities).

Filling the knowledge gaps

The current shortcomings in policies and programs under the federal and provincial initiatives are likely a reflection of some knowledge gaps, which need to be filled through further advancement in research, including compilation of empirical practice examples that inform multi-sector initiatives. Promising progress has been made to produce important knowledge through research and demonstration initiatives under the NHS, informing future strategies such as partnership models between community organizations and developers to co-create community -based housing, and design of attractive homes for PWD for the housing market using universal design (therefore developers are principles more incentivized to create 'accessible' homes) (CMHC, 2021a). Here, we note the needs for research to fill three additional knowledge gaps: 1) broader understanding about accessible housing needs; 2) examples that guide jurisdictional empirical coordination of responsibilities; and 3) clarification of costs and benefits of accessible housing.

1) Broader understanding about accessible housing needs

Perhaps the most important knowledge gap is related to the understanding of 'needs' for accessible housing. First, the accessibility-related design criteria for accessible housing under the NHS are overgeneralized, primarily to accommodate mobility needs. While existing design standards-based criteria for accessible housing used by CMHC address basic needs to enter, use, and transverse various spaces, these standards are often not adequate to support all daily activities for people with other types of disabilities. Many PWD require additional accommodation for either specialized devices or assistance in conducting daily activities by a family member or support worker. However, these individualized needs are typically not considered in conjunction with housing needs.

The accessible housing issue is seldom just about providing physical space of living with basic accessible features. It must be approached from the perspective of how the living environment of PWD best accommodates their ability to conduct their daily activities—to lead as independent, productive, and healthy lives as possible (Ioanna, 2020; Luciano et al., 2020). Types of assistive care services are also likely different across different age groups, ethnicities, genders, and socioeconomic conditions (Smith et al., 2024).

A research framework must be established to allow both individual and population-level inquiries to ascertain the quality and quantity of housing needs. For example, who and how many would require a combination of housing and ambulatory services, and what kinds of ambulatory services would they require? How many of the housing units should be catered for persons with disabilities other than mobility challenges? Where in the community should the housing be located? There is still a paucity of research that can answer these questions. Given the absence of such research framework, it would not be surprising if targets currently created in existing programs were solely based on the government's existing financial availability instead of based on evidence of needs.

The affordability of accessible housing also needs to be viewed more broadly-not only from the perspective of having adequate stock of housing units that cater to persons with different types of accessibility needs, but also from the perspective of facilitating their access to employment and income sources in combination of adequate financial support, to achieve affordability. If diverse employment opportunities are nearby their homes to commute easily, or if easy transports are available, more working age PWD might be able to obtain housing with minimum or no financial assistance. Or, if relatively high physical functioning, working age PWD could live in small-option homes to share ambulatory services to reduce the costs for individual tenants, it will make it easier for PWD to afford market-rate (or near market-rate) housing units. It will also be substantial cost saving for the

governments. Answers to the affordability issue, therefore, would need to encompass knowledge from multiple areas of research, including public administration (financing schemes), social work (human resources for services), rehabilitation science (types of support for independent living), health economics (impacts on quality of life and health care saving) and planning (land use and transportation planning).

2) Empirical examples that can guide jurisdictional coordination of responsibilities

How best to coordinate different areas of responsibilities (particularly housing operations and social/healthcare services) in a federal or provincial/ territorial governance system is not yet clear.

While some design needs for different types of PWD in their living environment have increasingly been clarified, research still relies on a small number of 'best practice' examples to help devise optimal models of developing and operating market and nonmarket accessible housing.

Since social and health care-related services fall under provincial and territorial jurisdictions, coordination of financing and human resources to operate non-market housing such as group homes and small-option homes would require close collaboration between the federal and provincial/ territorial governments, as well as across departments within the respective provincial/territorial governments. The divisions of responsibilities may differ depending on the respective jurisdictions. Moreover, a broader framework to address housing needs for PWD calls for changes beyond housing units themselves, which means close coordination with municipal governments in charge of spaces outside of homes-land use of neighbourhoods, street maintenance, and public transportation services is critical. Research would be needed to clarify the current mechanisms (and gaps) across departments that address policy, program, and regulatory needs for housing PWD-including design and provision of accessible housing itself, land use to

enable creation of accessible spaces in broader environment, and ambulatory or living assistance services deployment, as well as financial assistance to enhance affordability.

At provincial/territorial level, a clear strategic plan focusing on accessible housing would need to specify divisions of responsibilities compatible with the respective organizational dynamics, to best devise ways to tackle unique priorities identified in their locales. In the case of Nova Scotia, priorities in the accessible housing plan would be to set targets for the number of community-based housing units (e.g., small option homes) to reduce the individuals on the waiting list, while installing key accessibility features in existing social housing for PWD and older adults. Such a plan should articulate how the coordination between operations by HNS, the Department of Community Services, public health services, and municipal planning departments can he strengthened.

3) Clarification of costs and benefits of accessible housing

The efforts to increase accessible and affordable housing in the housing market thus far have required creative incentivization for developers, such as setting an 'affordable rate' to be closer to the market rate for RCFI. Such incentivization has resulted in the housing units not being affordable for many. As many housing policy scholars have already posited (Favilukis et al., 2023; Galster & Lee, 2020; Grant, Walks, & Ramos, 2020), the market-based provision of housing has an innate limitation to achieve affordability for many vulnerable population groups. A greater proportion of PWD are low income and in core need of housing than the population average, and they will unlikely be able to benefit from the accessible housing built under these schemes.

Part of the need to incentivize developers is likely due to the general perception of accessible housing being unattractive and unprofitable (Imrie, 2003). Indeed, there has been insufficient evidence that suggests high marketability of accessible housing

(rental or otherwise) to the builders, though arguments for profitability have been made by some researchers (Biglieri, 2018; Staples & Essex, 2016; Imrie & Hall, 2002). Although anecdotally, we have heard from local developers that they sometimes even take out some accessible features because their units cannot be rented out to tenants with no accessibility needs (due to their appearance). Research has to be developed to empirically demonstrate cost and benefits in various stages of market housing development, including, for example, investigations of different supply chains involved (e.g., local production of an accessible feature will reduce the cost), estimated extension of building's lifespan by adoption of universal design, economic return based on rents PWD are willing to pay, and potential cost-saving from building housing with high level of accessibility to anticipate stricter regulation in the future (Terashima & Clark, 2021b).

Other venues for potential action

In the meantime, there are a few strategies to be considered outside of the effort to address housing market issues. First, both national and provincial building codes should enforce existing accessibility requirements for residential building types which are currently exempt-for both new constructions and renovations. Enforcement of regulations has often been pointed out as a sensitive subject for municipal planners who are typically responsible for building inspections, as the 'fear' of scaring the developers away would hinder them from taking a strong position (Biglieri, 2018; Bevan, 2014). Such hesitance by planners would persist, unless advocacy for accessible housing is developed at the grass-root level to drive stronger public pressure for change. Facilitation of stronger alliance among vulnerable community groups, such as PWD, older adults, LGBTQ2+ members and economically deprived groups-who could also benefit from an increase of accessible housing stocks in their communitiesmight cultivate such pressure.

Second, empirical research on the practice of

small-option homes and other forms of social housing should be further compiled. With some exceptions for dementia village (which is typically more institutional arrangement than social housing) and group homes for persons with developmental disabilities (which has one of the most established bodies of research on housing for PWD), little research has been available to better understand how housing sector and disability service sector, or government, community organizations, and private developers work together to provide necessary services in a streamlined manner. The process of applying for permits and funding to create and manage these housing schemes has also been unclear from the PWD perspective (Powley, 2023). The capacity building efforts by the FCHI and the consortium of community organizations under the CHTC could be an ideal 'home' for information related to operations of homes like small-option and group homes, as well as alliance buildings across groups representing vulnerable communities.

Additionally, there is no question that accessible housing, in conjunction with broader NHS outcomes, needs to be more closely monitored. Likewise, the federal government would likely need to develop new targets for the creation of accessible housing stock through NHS programs and initiatives based on progress made, and through updated needs assessment. Even if the targets of more clearly defined types of accessible housing are articulated in the future, without comprehensive and clear reporting mechanisms to ensure that requirements (e.g., that 5, 10, or 20% of a project's units must be accessible) are met through all NHS programs, the accountability of the policy will remain elusory.

Limitations of this study

There are a few limitations associated with this study. The most important limitation is our inability to provide a thorough overview of the NHS, which is still relatively new. Reporting around the progress made in the first five years cannot demonstrate longterm, comprehensive outcomes such as the number

of accessible housing units built and in operation. We also likely missed some of the reports that were newly published during our study. As the NHS progresses, further research would serve to further inform the degree to which accessible housing units are being developed in Canada and whether they are meeting NHS program accessibility requirements. Second, this study is based on the analysis of documents, and did little to illustrate the practical constraints experienced by the government officials, community organizations, or developers in addressing the accessible housing shortage. Consultation with agency administrators and managers could have served to better contextualize the institutional limits (e.g., capacity, financial) to increasing the supply of accessible housing units. Third, we did not delve into questions about theoretical foundations through which existing housing policies and programs frame the issues of accessible housing. It is important to iterate here that diverse housing needs of PWD must be viewed beyond simple provisions of different accessible features. Criticisms about the business as usual attempts by planning and policy to solve accessible housing needs are not new. Imrie (2006, 2, 4) aptly pointed out nearly two decades ago that technical regulatory schemes "based on the primacy of modernist values and practices... do little to address an important determinant of deficient design-that is, the underlying values, attitudes and practices of builders, and those with responsibilities for the design and construction of dwellings." Planners must develop a broader understanding of disability and its relationship with the built environment, looking to some key theories of disability (Ross et al., 2023). Likewise, advancement in discourse on accessible housing would require researchers and practitioners in planning, design, building, and managing accessible and affordable housing to recognize their own ableism (Goodley, 2014, Campbell, 2009).

Conclusion

The need to increase the supply of accessible housing units is at a critical point in Canada. While policies, regulations, and programs have been created to address the need, this study has identified some gaps, challenges, and shortcomings in the current system. Canada has also been criticized for violation of human rights due to its lack of accessible housing provision for persons with disability (under Articles 19 and 28, CRPD) (CERA, 2021; Salinas, 2019). Despite this, the accessible housing issues seem to remain a status of secondary importance in Canada's housing policies. The issues of accessible housing seem to be overshadowed by the current housing crisis-rapid hike in housing prices and general shortage of any housing stocks. However, the two issues are not separate. As Canada's population continues to age, the need to align the way we frame housing issues with disability considerations will become more urgent. Through immediate, increased, and comprehensive action on accessibility, Canada can begin alleviating current accessible housing needs, while preparing to meet our population's changing housing needs into the future.

Notes on contributors

John Gamey is a recent graduate from the Master of Planning program at Dalhousie University's School of Planning. He has recently begun work for the BC Public Service in the Planning and Land Use Management Branch of the Ministry of Housing.

Mikiko Terashima, Ph.D., is an associate professor at the School of Planning, Dalhousie University. Her research focuses on planning and urban design for accessible and inclusive built environments, and their impacts on health and wellbeing of community members with varying abilities and older adults.

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