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Equity in home care use in Canada: a cross-sectional analysis of the Canadian longitudinal study on ageing

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ABSTRACT

Background Although home care is an essential service that enables older adults to age at home, there are concerns that not all populations have equitable access to home care services in Canada. The primary objective of this study is to describe formal home care use in Canada across a broad set of demographic and socioeconomic factors.

Methods We conducted a cross-sectional analysis of formal home care use among community-dwelling adults aged 45+ using data from the Canadian longitudinal study on ageing (CLSA) at the 3-year post-baseline follow-up (2015–18). We calculated crude prevalences of formal home care use, stratified by functional status, within the following equity stratification factors: sex, gender, income, education, immigration history, rurality, social support and population group. We used logistic regression models with marginal effects to calculate prevalences of formal home care use while further adjusting for factors related to home care need such as functional impairment, chronic conditions, assistive device use and self-reported health.

Results Of 43 115 CLSA participants included, we found that 8.0% used formal home care services in the previous 12 months. Higher levels of functional impairment were consistently associated with greater home care use. Our unadjusted analysis found significant variations in home care use by sex, gender, income, education, immigration history, rurality and social support. After adjusting for factors related to home care need, we found that individuals with lower income, recent immigration and lower education were significantly less likely to use formal home care services, while individuals with less social support were significantly more likely to use formal home care services.

Conclusions This study highlights disparities in home care use in Canada by income, immigration, education and social support. These findings emphasise the importance of developing federal and provincial policies to address barriers and promote equitable access to home care.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Some studies have reported disparities in home care use in Canada by sex, gender, income, place of residence and language. However, no previous study has used a nationally representative sample to investigate equity in home care use in Canada across a broad set of strata while simultaneously accounting for factors related to home care need including functional impairment, chronic conditions, assistive device use and self-reported health.

WHAT THIS STUDY ADDS

⇒ Our study highlights national disparities in home care use with lower income, recent immigration and lower education associated with a lower likelihood to access home care and less social support associated with a greater likelihood to access home care.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Our findings provide important considerations to guide home care policy and planning in Canada to achieve more equitable ageing, in particular the need to improve public home care provision for individuals who cannot afford private care.

INTRODUCTION

The percentage of Canadians aged 65 and older is projected to increase from 18.5% in 2021 to 25.9% in 2068, with the population aged 85 and older predicted to more than triple from 871 000 to 2.3 million people within this period.[1] Although every individual's experience of ageing is unique, older age is generally associated with losses in physical and mental capacity, greater functional limitations and higher risk of chronic conditions.[2 3] Canadians have a strong preference to age in place as their health declines, with 93% of Canadians aged 65 preferring to stay in their homes for as long as possible.[4] It is estimated that more than 10% of adults 65 years and older, and 30% of adults 80 years and older, receive some healthcare in their home in Canada.[5] With the growing older population, projections estimate that both publicly funded and privately funded home care hours will more than double from 100 000 hours in 2019 to 225 000 hours in 2050.[6]

Home care provides professional and personal support services in the home, enabling recipients to independently age in their community.[7] Home care services include nursing, homemaking, personal support, rehabilitation and other care services.[7] Along with prolonging and/or avoiding the need to seek long-term residential care, home care is also associated with improved quality of life, decreased mortality, fewer hospitalisations and system level cost savings.[8–11] Despite the widely acknowledged benefits of home care to individuals and health systems, there are concerns about equity and fairness in home care use in Canada. Potential inequity in home care use has meaningful implications regarding the degree to which certain populations are disadvantaged in ageing at home over others.[12 13]

In Canada, provinces administer publicly funded healthcare systems under a federal mandate. However, home care is not a mandated service and is thus provided at the discretion of each province.[14] Nevertheless, all provinces provide public funding for medically necessary home care services.[15 16] However, there is substantial variation in the funding of services, both in terms of which services are covered and the amount of coverage.[7 17] Additionally, varying eligibility requirements, service availability, service maximums[18] and co-payments,[19] all lead to significant unmet home care needs,[20] and may result in disparities in use.[12 21 22] Previous studies suggested disparities in home care use for those living in rural areas,[23–25] lower earners,[16] women[26] and those facing linguistic and cultural barriers.[21 27]

Despite the essential role that home care plays in healthy ageing and some previous evidence of disparities in home care use in Canada, there have been no studies examining equity in home care using nationally representative samples. Using the data from the Canadian longitudinal study on ageing (CLSA), this study makes use of a broad set of demographic and socioeconomic factors to examine whether certain groups are more or less likely to use home care services. Our primary objective is to describe formal home care use across a broad set of health equity stratifiers while accounting for home care need. Our secondary objective is to investigate differences in home care use by sex within the same health equity categories.

MATERIALS AND METHODS
Setting and study design
We conducted a cross-sectional study among middle-aged and older Canadians.

Data source
We used data from follow-up 1 of the CLSA (3 years post-baseline). A detailed methodology of the CLSA has been published previously.[28] In brief, the CLSA is a nationally representative longitudinal study of 51 388 community-dwelling adults aged 45–85 at the time of recruitment (2011–15). Follow-up occurs every 3 years for over 20 years or until loss to follow-up or death. Participants were eligible at baseline if they were physically and cognitively able to participate independently. Participants can designate proxy respondents for decision-making and information provision. In the baseline CLSA recruitment, residents of the three territories (Yukon, Northwest Territories, Nunuvat), First Nations reserves, active members of the Canadian Armed Forces and people living in long-term residential care settings were excluded. The CLSA is composed of a tracking cohort (n=21 241 at baseline) and a comprehensive cohort (n=30 097 at baseline). Tracking cohort participants had their data collected through phone interviews. Comprehensive participants were sampled from populations within 25–50 km of 11 data collection sites across seven provinces and had their data collected through a combination of in-person assessments and phone interviews. The two cohorts were recruited as part of a coordinated sampling and data collection strategy and were designed to be integrated for research purposes. This study only uses information from the common questionnaire data that is available on participants in both cohorts.

Participant eligibility
We included all CLSA participants who completed follow-up 1, which took place 3 years following the baseline data collection (July 2015–December 2018). We combined the comprehensive and tracking cohorts (n=44 815).

Measures
Home care
Our primary outcome is formal home care use within the past 12 months. Formal home care use is defined as short-term or long-term assistance from professionals at home because of a health condition or limitation that affects their daily life.[29] Assistance from family, friends or neighbours is excluded. In the CLSA, formal home care includes the following services: personal care (assistance with eating, dressing, bathing or toileting), medical care, coordinating care, housekeeping, meal preparation, transportation (including shopping), physical therapy, training and adaptation, and other services. We included both privately paid and publicly funded home care.

Functional status
We stratified our analysis of formal home care use by functional status as function is a primary driver of need for home care.[30 31] The CLSA collected information on seven activities of daily living (ADL) and instrumental activities of daily living (IADL) through modified questions from the validated Older Americans' Resources and Services (OARS) Multidimensional Functional Assessment Questionnaire.[32 33] The collected ADLs include the ability to dress, feed, take care of appearance, walk, get out of bed and bath, and incontinence/trouble getting to the bathroom in time. The collected IADLs include being able to

use the telephone, travel, shop, prepare meals, do housework, take medicine and handle money.

We used the OARS scale to define functional status. The OARS scale categorises participants into five categories, from 'No functional impairment' to 'Total impairment' according to the number and type of ADLs and IADLs impairments present. Due to the very low prevalence of severe and total impairment, we collapsed participants from these categories into a 'moderate and greater' category.

Equity stratifiers

We examined sex, gender, income, education, immigration history, rurality, functional social support and population group. Participants were categorised as recent immigrants if they immigrated within the previous 20 years and earlier immigrants if they immigrated more than 20 years ago. Education was categorised into completion of 'less than secondary school', 'secondary school' and 'post-secondary school'. Population group refers to the self-identification of participants into one or more groups, which may be based on their cultural, ethnic or racial background.[34] These data are reported descriptively as fully as possible; however, due to small sample sizes, we dichotomised the data into 'white' and 'non-white' in our analysis, as the 'non-white' consisted of <5% of participants.

The small sample size of gender diverse individuals prevented their inclusion as a separate gender category in the primary analysis; however, the frequencies are reported descriptively. Income was categorised into less than $50 000, $50 000 to less than $100 000, and $100 000 or greater. Urban or rural status was determined by linking participants' postal code to Statistics Canada's postal code conversion file[35] and defining rural communities as those with a population less than 10 000. Social support was assessed with a 19-item self-administered Medical Outcomes Study (MOS) Social Support Survey.[36] The MOS survey uses four subscales of social support (tangible social support, affection, positive social interaction, emotional or informational support) and averages the scores to obtain an overall functional support score.[37] We categorised participants' overall functional support score into quartiles for our analysis (1-low support, 4-high support).

Home care need

We selected a number of variables to control for home care need in our adjusted analyses. We included a count of ADLs, count of IADLs, count of chronic conditions, depression, self-reported anxiety, urinary incontinence, self-reported general health, self-reported healthy ageing, assistive device use, living alone, age and province of residence. The count of chronic conditions included heart disease (including heart failure), lung diseases (emphysema, chronic bronchitis, chronic obstructive pulmonary disease, chronic changes in lungs due to smoking), chronic kidney disease, stroke, dementia, diabetes, high

blood pressure, cancer, rheumatoid arthritis and osteoarthritis (knee, hip, hand). Depression was measured using the 10-item version of the Centre for Epidemiologic Studies Depression Scale (CESD-10), with scores ranging from 0 to 30, and used continuously.[38 39] Self-reported anxiety and urinary incontinence were measured and used as binary variables. Both self-reported general health and self-reported healthy ageing were measured on a 5-point Likert scale ranging from 'Poor' to 'Excellent'. Assistive device use was coded as three separate binary variables considering use of a wheelchair, cane or walker, respectively. Living alone was dichotomised as either living with no others vs living with one or more people. Age was categorised using 10-year bins (45–54, 55–64, 65–74, 75+).

Statistical analysis

We described the sociodemographic and health characteristics of participants using measures of frequency, central tendency and dispersion. For our unadjusted analyses, we calculated the crude prevalence of formal home care use with 95% CIs within each category of functional status and equity stratifier. Participants were excluded only from the prevalence calculations for which they were missing data. We assessed the statistical significance of each equity stratifier with Rao's score test comparing a logistic regression model including only functional status as a covariate and a logistic regression model with functional status and the equity strata of interest as covariates, allowing for interactions between function and the equity factor.

For our adjusted analyses, we calculated the prevalences of formal home care use with 95% CIs for each equity strata using logistic regression with average marginal effects, including the health variables related to home care need. Overall statistical significance for each equity stratifier was calculated similar to the unadjusted analysis but with the inclusion of the health variables as covariates in both models. We also plotted the unadjusted and adjusted prevalences for each equity stratifier by functional status. We repeated our adjusted analysis stratified by sex. We suppressed insufficient sample sizes (n<5) for certain categories in immigration history. We report model results for the home care need covariate model in online supplemental table 1. All analyses were conducted using R (version 4.2.1) and the 'marginaleffects', 'car', 'ggplot2' and 'survey' packages.[40–43]

Sensitivity analysis

We conducted a sensitivity analysis using the tangible subscale of the MOS social support scale to examine associations specifically with the provision of material aid or behaviour assistance. We also ran models stratified by each level of functional impairment rather than incorporating interaction terms for function.

RESULTS

Among the 44 815 CLSA participants at follow-up 1 (3 years post-baseline), up to 43 115 participants were included in our analysis as participants with missing data on home care use (0.7%) or functional status (3.7%) were always removed. Missing data for each variable are reported in table 1. The median age of the cohort was 65 (Q1: 58, Q3: 73), 51.2% were female, 10.5% were from rural areas, 1.4% were recent immigrants and 6.0% had completed less than secondary school (table 1). 85.9% of participants had no ADL or IADL impairment, 11.7% had a mild ADL or IADL impairment, and 2.4% had a moderate or greater ADL or IADL impairment.

Unadjusted analysis

Overall, 3580 (8.0%) participants used home care services within the past 12 months. Of those 3580 home care users, 2125 (59.3%) used a single service (table 2). Figure 1 displays the prevalence of home care use within each equity stratifier, further stratified by functional status. Across all equity stratifiers, the proportion of home care users was greatest among moderate or greater impairment (62.1%), followed by those with mild impairment (28.6%) and those with no impairment (3.8%). Unadjusted prevalences of home care use by functional status and equity stratifiers are reported in table 3.

In our unadjusted analysis, sex, gender, income, rurality, immigration history, social support and education were associated with significant differences in home care use (figure 1). We found a greater proportion of home care users among participants who had lower income, lived in urban areas and had less social support (quartiles 1 and 2). Generally, a greater proportion of females and women used home care compared with males and men. Recent immigrants had a lower proportion of home care users compared with earlier immigrants and non-immigrants. Among those with a moderate or greater impairment, a greater proportion of individuals with higher education received home care.

Adjusted analysis

Our adjusted analysis showed similar trends in that participants with moderate or greater impairments had the highest likelihood of home care use, followed by mild and no impairment (figure 2). After adjusting for variables related to home care need, we found fewer significant equity stratifiers: only income, immigration history, social support and education. We found that participants with greater income were generally more likely to use home care. At the highest level of impairment, the point prevalence was lowest in the highest income group, although the confidence intervals were broad. Similar to our unadjusted results, recent immigrants were less likely to use home care than earlier immigrants and non-immigrants. Within education, we found that participants who have higher levels of education were more likely to use home care compared with lower education. Those with higher levels of social support were also less likely to use home

Table 1 Descriptive characteristics of CLSA participants at follow-up 1 (n=44 815)

Characteristic	N (%)	Missing (%)
Functional status		1640 (3.66%)
No impairment	37 073 (85.87%)	
Mild impairment	5048 (11.69%)	
Moderate or greater impairment	1054 (2.44%)	
Health status		
Age, years, median (Q1, Q3)	65 (58, 73)	
Age groups		
45–54	6598 (14.72%)	
55–64	14 751 (32.92%)	
65–74	13 301 (29.68%)	
75+	10 165 (22.68%)	
ADL count, median (Q1, Q3)	1 (1, 1)	1396 (3.12%)
IADL count, median (Q1, Q3)	1 (1, 2)	673 (1.50%)
Self-reported general health		77 (0.17%)
Excellent	7720 (17.26%)	
Very good	18 299 (40.90%)	
Good	13 384 (29.92%)	
Fair	4338 (9.70%)	
Poor	997 (2.23%)	
Chronic disease count, median (Q1, Q3)	1 (0, 2)	3079 (6.87%)
CESD Depression Scale, median (Q1, Q3)	4 (2, 7)	1529 (3.41%)
Self-reported anxiety	4017 (9.19%)	1082 (2.41%)
Self-reported healthy ageing		147 (0.33%)
Excellent	8047 (18.02%)	
Very good	19 217 (43.02%)	
Good	13 436 (30.08%)	
Fair	3275 (7.33%)	
Poor	693 (1.55%)	
Assistive device use	6393 (14.36%)	286 (0.64%)
Cane	5490 (12.33%)	
Walker	2238 (5.03%)	
Wheelchair	1045 (2.35%)	
Urinary incontinence	7890 (18.04%)	1070 (2.39%)
Province of residence		3 (0.007%)
Alberta	4490 (10.00%)	
British Columbia	8073 (18.00%)	
Manitoba	3978 (8.88%)	
New Brunswick	1063 (2.37%)	
Newfoundland	2884 (6.44%)	
Nova Scotia	4009 (8.95%)	
Ontario	9831 (21.90%)	
Prince Edward Island	875 (1.95%)	
Quebec	8546 (19.10%)	
Saskatchewan	1063 (2.37%)	

Continued

Table 1 Continued

Characteristic	N (%)	Missing (%)
Primary language spoken		40 (0.09%)
English	35 429 (79.06%)	
French	8511 (18.99%)	
Other	835 (1.86%)	
Equity stratifiers		
Sex (female)	22 918 (51.17%)	24 (0.05%)
Gender		29 (0.06%)
Woman	22 902 (51.14%)	
Man	21 845 (48.78%)	
Gender diverse	39 (0.09%)	
Population group		44 (0.10%)
White	42 696 (95.37%)	
Multiple	534 (1.19%)	
South Asian	324 (0.72%)	
Black	276 (0.62%)	
Chinese	259 (0.58%)	
All else	682 (1.52%)	
Household income		3255 (7.26%)
<$50 000	12 012 (28.90%)	
$50 001–$99 999	14 424 (34.71%)	
$100 000 +	15 124 (36.39%)	
Highest education		103 (2.30%)
<Secondary school	2669 (5.97%)	
Secondary school	33 996 (76.03%)	
Post-secondary school	8047 (18.00%)	
Rurality		31 (0.07%)
Urban	40 082 (89.50%)	
Rural	4702 (10.50%)	
Immigration history		12 (0.03%)
Recent immigrant	648 (1.45%)	
Earlier immigrant	6525 (14.56%)	
Non-immigrant	37 630 (83.97%)	
Functional Social Support Score, median (Q1, Q3)	86.84 (73.68, 97.37)	2776 (6.19%)

ADL, activities of daily living; CLSA, Canadian longitudinal study on ageing; IADL, instrumental activities of daily living.

Table 2 Prevalence of formal home care services among CLSA participants at follow-up 1

Home care service type	All participants (n=44 748) n (%)
Any service	3580 (7.99%)
Personal care	692 (1.55%)
Medical care	927 (2.08%)
Coordinating care	164 (0.37%)
Housekeeping	1411 (3.17%)
Transportation	538 (1.21%)
Meal preparation	1704 (3.83%)
Physical therapy	530 (1.19%)
Training and adaptation	183 (0.41%)
Other professional services	179 (0.40%)
Number of services used	
0	40 949 (91.96%)
1	2125 (4.77%)
2	803 (1.80%)
3	309 (0.69%)
4+	343 (0.77%)

CLSA, Canadian longitudinal study on ageing.

rather than use interaction terms, we detected statistically significant associations for income and education only in the mild impairment groups and for immigration only in the no impairment group (online supplemental table 3). Notably, these subgroup analyses all suffer from lower precision due to smaller sample sizes. We found no significant association with the formal home care use across quartiles of the tangible social support subscale (online supplemental table 4).

DISCUSSION

Our study found that 8% of CLSA participants used home care services within the previous 12 months, with large variations in use by functional ability. Our unadjusted analysis found significant variations in home care use by sex, gender, income, rurality, immigration history, social support and education. However, after adjusting for health status factors related to home care need, only income, immigration history, education and social support were associated with significant differences in home care use. In general, we found that participants with greater income and education were more likely to use home care, recent immigrants were less likely to use home care compared with earlier immigrants and non-immigrants, and those with less social support were more likely to use home care.

Our unadjusted analysis showed declines in home care use as income increased across all functional status levels. These findings are consistent with other Canadian studies using home care survey data.[5] However,

care. Sex, gender, rurality and population group were not significantly associated with home care use in our adjusted analysis. Adjusted prevalences of home care use by functional status and equity stratifiers are reported in table 3.

Sensitivity analyses

In our sex-stratified analysis, we found that females, but not males, with higher income had a greater likelihood of using home care (online supplemental table 2). Conversely, among males, but not among females, higher education was associated with more home care use. When we stratified our models by functional status
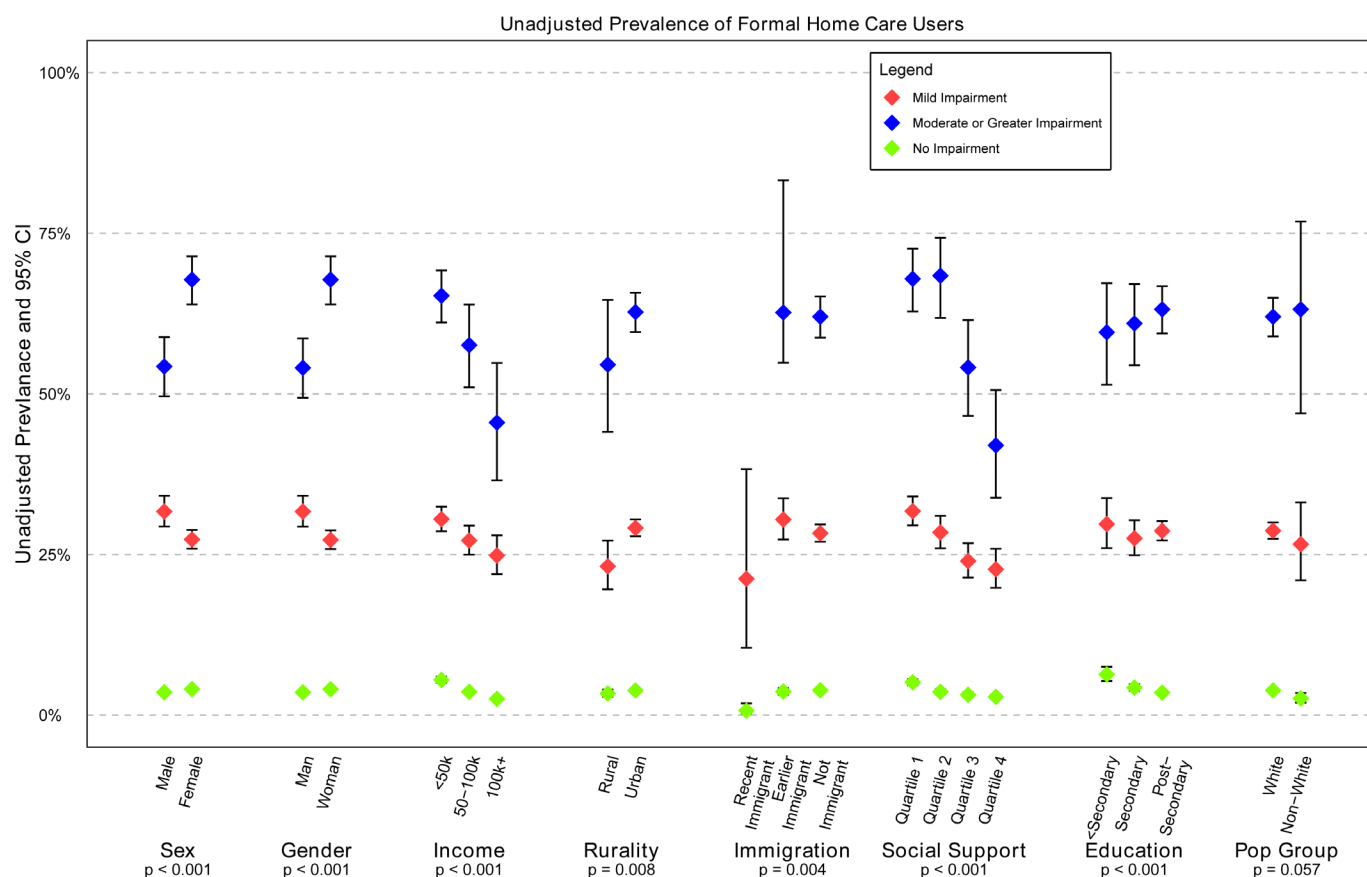
Figure 1 Unadjusted prevalences of formal home care use by equity stratifiers, stratified by functional status. The moderate or greater impairment group among recent immigrants was suppressed due to small sample size.

adjusting for health status variables largely reversed this trend, resulting in a positive gradient in home care use that increased with income in the no and mild functional impairment groups. One potential explanation of this finding is that individuals living in lower-income neighbourhoods have less access to home care, an issue known to exist for other care services.[44] Another explanation is that those with higher incomes are more likely to purchase private home care. It has been estimated that a quarter to a third of home care in Ontario is privately purchased,[6 45] and other studies have found that private home care use is dependent on income.[16 22 46] These studies suggest that higher income individuals may be using private home care services to top up publicly funded services or, having become dissatisfied with publicly funded services, solely use private care.[21] This may explain in part the inconsistency we observed in the relationship between income and home care use in the highest functional impairment strata. These individuals would have been far more likely to be eligible for publicly funded care, reducing the opportunities for ability to pay to influence access. High levels of unmet home care need paired with a large private home care industry exacerbates income-based health inequalities, allowing those who can afford to pay to exhibit more autonomy in how and where they age.[9 21 47]

Our unadjusted analysis also found that home care use was more likely among those with lower education compared with higher education, which is also corroborated by other studies.[20 25] However, when we adjusted for home care need, we once again found that the trend reversed and that home care use was more likely with higher levels of education compared with lower education. While income and education are related variables, there are separate mechanisms through which lower education may be associated with less access. For example, individuals with higher levels of education have greater health literacy, are better able to navigate the health system, have a greater awareness of available services and have established networks that increase their ability to gain access.[48 49]

Both our unadjusted and adjusted analyses found significant differences in home care use between recent immigrants when compared with earlier immigrants and non-immigrants. Our findings align with other studies which have found that immigrants have greater unmet home care need than non-immigrants[50] and corroborate the differences in home care use between recent and earlier immigrants.[51] Disparities in home care use between recent immigrants and non-immigrants may be due to linguistic barriers, cultural differences, great availability of informal care and a lack of information

Table 3 Unadjusted and adjusted proportions of home care users by functional and equity strata

Equity stratifier	Unadjusted			Adjusted		
	No impairment (n=37 031)	Mild impairment (n=5038)	Moderate or greater impairment (n=1046)	No impairment (n=34 445)	Mild impairment (n=4427)	Moderate or greater impairment (n=840)
Sex						
Male	3.55%	31.69%	54.26%	3.58%	26.94%	66.96%
Female	4.04%	25.89%	67.78%	3.84%	23.10%	69.67%
Gender						
Man	3.55%	31.69%	54.05%	3.53%	26.90%	66.75%
Woman	4.03%	27.27%	67.78%	3.79%	23.08%	69.55%
Household income						
<$50 000	5.47%	30.50%	65.28%	3.54%	20.83%	70.54%
$50 000– $99 999	3.62%	27.18%	57.59%	3.57%	24.85%	70.83%
$100 000+	2.53%	24.84%	45.54%	4.18%	31.22%	61.98%
Rurality						
Rural	3.37%	23.16%	44.08%	3.48%	22.50%	62.11%
Urban	3.83%	29.14%	59.62%	3.72%	24.49%	69.27%
Immigration history						
Recent immigrant	0.69%	21.21%	*	0.90%	17.57%	*
Earlier immigrant	3.66%	30.45%	62.66%	2.98%	23.83%	69.31%
Not immigrant	3.86%	28.31%	62.02%	3.87%	24.43%	68.64%
Functional social support						
Quartile 1	5.11%	31.75%	67.91%	4.11%	25.54%	72.69%
Quartile 2	3.61%	28.43%	68.40%	3.60%	25.75%	75.41%
Quartile 3	3.16%	23.98%	54.12%	3.54%	22.90%	61.88%
Quartile 4	2.84%	22.70%	41.98%	3.55%	22.88%	58.29%
Highest education						
<Secondary school	6.33%	29.73%	59.59%	3.51%	20.41%	61.67%
Secondary school	4.27%	27.52%	60.96%	3.65%	21.69%	65.63%
Post-secondary school	3.50%	28.68%	63.16%	3.72%	25.26%	70.96%
Population group						
White	3.84%	28.71%	62.00%	3.73%	24.55%	68.42%
Non-white	2.60%	26.60%	63.16%	2.92%	19.60%	77.49%

*Suppressed due to small numbers.

about accessing and navigating services.[51 52] Immigrants are also disadvantaged in their financial status relative to non-immigrants as both the Canada Pension Plan or Old Age Security pension are dependent on years spent in the country.[53 54] Earlier immigrants may overcome these barriers as they gain information about available services, widen their social networks, receive assistance with navigating healthcare from their children and have greater opportunity in developing their financial safety net.[52]

Previous studies have found that women and females are more likely to use home care than men and males.[5 26] In our adjusted analysis, we did not find a significant difference in home care use between women and men or females and males. This disparity with some of the published literature may be due to our cohort being younger and healthier than other studies, our inclusion of privately paid care and our decision to control for living alone, a gender-related variable that increases dependence on formal home care services, in our adjusted models. However, stratifying our results by sex revealed some differences in which variables were associated with home care use. Our findings suggested that income and immigration history were more influential among females, while education was more influential for males. Other studies have found that women are more likely to be dependent on self-financed home care, which may account for the sex and income-based differences observed in our study.[22 26] Differences in use might also be attributed to women being more likely to
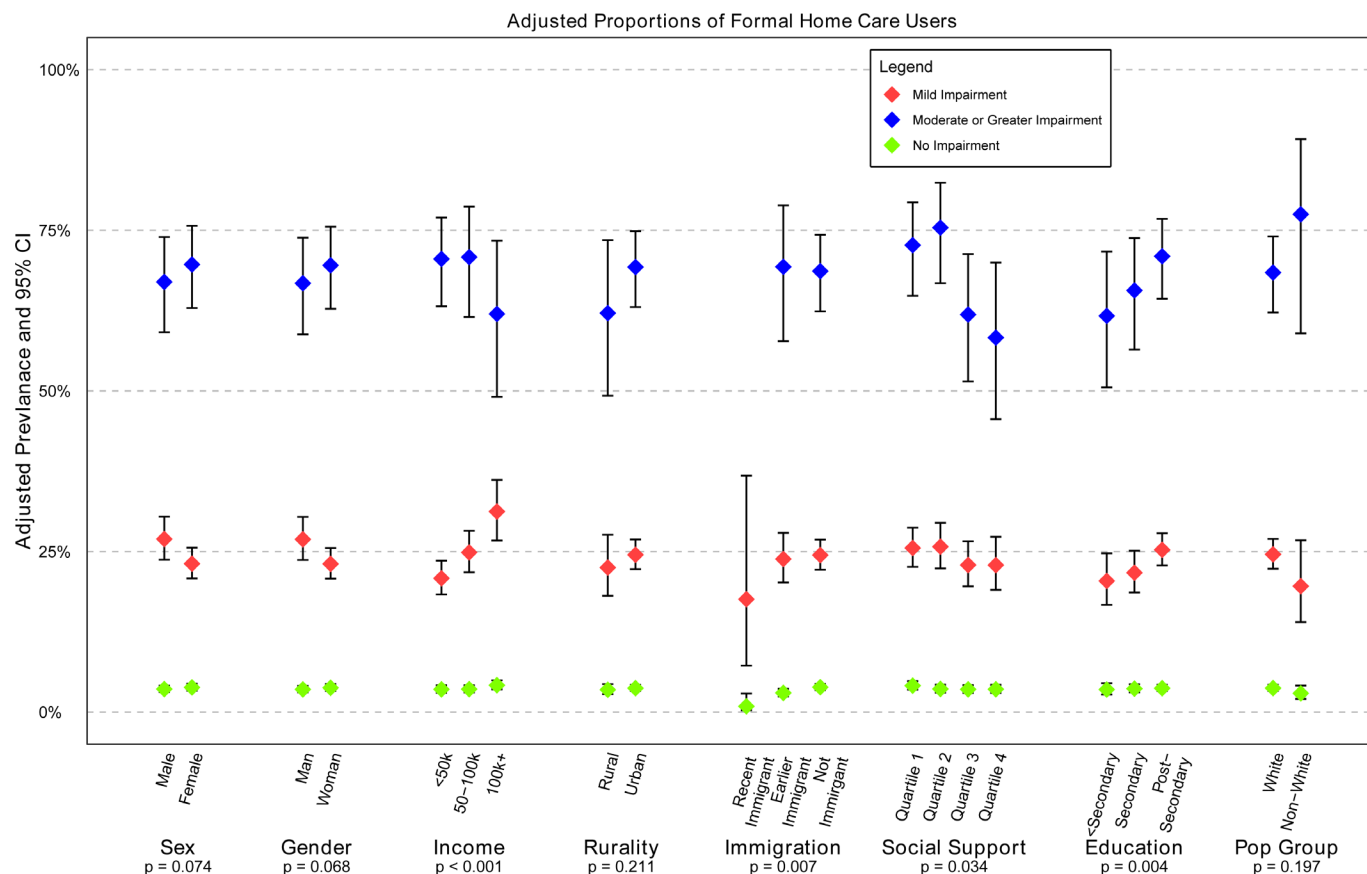
Figure 2 Adjusted prevalences of formal home care use by equity stratifiers, stratified by functional status. The moderate or greater impairment group among recent immigrants was suppressed due to small sample size.

be widowed or live alone, more likely to be a caregiver and more often reliant on their children for informal support rather than their partner.[15 55]

Our study reveals potential inequalities in the distribution and access of home care resources. While we found disparities by income, immigration, education and social support, inequalities may also be present across other factors, and public-funded home care policy and planning must be mindful of the complex needs, challenges and barriers that different demographics face. Cost-related barriers, such as co-payments, are intended to limit unnecessary or overuse of resources but discourage use and result in greater inequalities,[56] leaving many abandoned to take care of their own needs, turn to informal care, or private care if they can afford to.[21 57] Increasing the general funding envelope for home care while lowering the eligibility threshold for public services could reduce cost barriers by limiting the number of individuals who would benefit from home care but are ineligible for public care and thus reliant on privately purchased care.[58] Basic income or national long-term care insurance may also address the unexpected costs and challenges associated with home care services and retirement.[59]

Strengths and limitations
The strengths of our study include the use of individual-level health status information, reporting of home care

use across varying equity stratifiers, use of a large nationally representative sample and inclusion of privately paid home care. However, our study has limitations. First, many of our health status variables were self-reported and subject to recall bias. Second, our outcome was a simple measure of whether an individual received home care and did not consider the hours of care received. Third, although the sample size is large, there was a lack of diversity in immigration history (<2% recent immigrants), population group (<5% non-white) and gender (<1% gender diverse), which produced large confidence intervals and limits our ability to detect significant differences between these groups. While a cross-sectional design was the most appropriate for our research question, future research using a longitudinal design would be helpful to explore the effects of differential home care use on prospective health outcomes.

CONCLUSION
Our study investigated home care use in Canada across a number of health equity stratifiers. Our findings suggest that individuals with lower income, recent immigrants and those with lower education were less likely to access home care despite the same general level of need, while those with less social support were more likely to access home care. Our findings indicate the need for federal and provincial home care policy and planning to address

barriers that reduce access to home care services and consider funding models that would democratise access.

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