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Reports on Disability and Accessibility in Canada

Barriers to accessibility related to communication: Findings from the 2022 Canadian Survey on Disability

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Abstract

This study uses the 2022 Canadian Survey on Disability to explore the experiences of barriers to accessibility related to communication among persons with disabilities aged 15 years and over. Descriptive statistics show that nearly half of persons with disabilities experience barriers related to communication and that the proportion experiencing such barriers varies by disability-related and sociodemographic characteristics. Disability-related factors associated with higher odds of experiencing barriers included having more severe disabilities, having unmet needs for disability supports and having unmet needs for help with everyday activities. In terms of sociodemographic factors, the odds of experiencing barriers to accessibility related to communication were lower among older age groups and racialized groups and were higher among 2SLGBTQ+ persons.

Introduction

The purpose of the [Accessible Canada Act \(ACA\)](#), along with its regulations¹ and related standards,² is to make Canada barrier-free by 2040. The ACA defines a barrier as anything that prevents persons with disabilities from fully participating in society.³ The ACA provides a framework for making progress towards more inclusive communities, workplaces, programs and services through the identification, removal, and prevention of barriers to accessibility. It includes the following priority areas: employment; built environment;⁴ information and communication technologies (ICT);⁵ communication, other than ICT; procurement of goods, services, and facilities; design and delivery of programs and services; and transportation. Research indicates that barriers to accessibility can manifest in different forms and affect persons with disabilities in a variety of situations, such as limiting their employment opportunities (Grisé et al., 2019), social participation (Sundar et al., 2016; Wee & Lysaght, 2009) and overall quality of life (Forster et al., 2023).

With the ratification of the United Nations Convention on the Rights of Persons with Disabilities,^{6,7} Canada has adopted the social model of disability, which conceptualizes disability as the result of interactions between functional limitations and barriers to accessibility in the environment (Pianosi et al., 2023). Developing a better understanding of barriers to accessibility encountered by persons with disabilities can inform the design of interventions to remove them and ensure that our communities, workplaces and services are fully accessible.

While previous research has highlighted issues related to barriers to accessibility in Canada (Choi, 2021; McDiarmid, 2021), data from the 2022 Canadian Survey on Disability (CSD) provides an opportunity to more closely examine barriers to accessibility encountered by Canadians with disabilities. The 2022 CSD collected information on 27 types of barriers to accessibility experienced by persons with disabilities because of their condition across four domains: public spaces; behaviours, misconceptions or assumptions; communication; and Internet use. This is the third in a series of four reports (one for each domain) providing further analyses of barriers to accessibility among persons with disabilities aged 15 years and over. The report focuses on barriers related to communication encountered by persons with disabilities.

Communication is one of seven key areas that informs the legal framework of the ACA. It involves the sending and receiving of information through verbal or non-verbal means and can be done in various ways, such as, face-to-face, over the phone, online and through reading and writing (Schindler et al., 2010). Effective communication

1. Employment and Social Development Canada. 2022. [Summary of guidance on accessibility plans](#).
2. Accessibility Standards Canada. 2023. [Accessibility Standards Canada and CSA Group collaborate to publish three new accessibility standards](#).
3. The ACA defines a barrier as “anything physical, architectural, technological, or attitudinal, anything that is based on information or communications or anything that is the result of a policy or a practice — that hinders the full and equal participation in society of persons with an impairment, including a physical, mental, intellectual, cognitive, learning, communication or sensory impairment or a functional limitation”.
4. This can include buildings, homes, parks, streets, sidewalks and other public spaces.
5. This can include assistive aids, devices or technologies such as closed captioning or subtitles, video relay services (VRS), speech to text functions, or computers with specialized software, apps or other adaptations.
6. United Nations, Division for Inclusive Social Development. 2006. [Convention on the Rights of Persons with Disabilities and Optional Protocol](#).
7. Canadian Heritage. 2024. [Rights of people with disabilities](#).

is essential for social participation and inclusion and can be facilitated or hindered by various environmental and personal factors (Hammel et al., 2015; Solarsh & Johnson, 2017). Barriers to accessibility related to communication negatively impact the experiences of persons with disabilities within a variety of contexts such as public transportation and healthcare services (Bigby et al., 2019; Stransky et al., 2018).

Among persons with disabilities, communication challenges can manifest in different ways for different disability types and for those who have diverse needs for communication supports (Cashin et al., 2024; Condessa et al., 2020). Barriers can emerge through attitudes, verbal and non-verbal cues, aspects of the environment, communications tool being used or within documents and written components. Looking at video-teleconferencing, it may introduce different challenges depending on disability type, such as those related to instructions for use (memory or learning disabilities), size of keyboard (dexterity or flexibility disabilities), size of visual display (seeing disabilities), or speech-to-text capabilities, availability of closed captioning and audio quality (hearing disabilities). In person interactions can be impacted by things like overuse of jargon or technical terms, facial expressions, gestures, noise or visual distractions.

Persons with disabilities often have unmet communication needs, such as access to alternative formats of important information (World Health Organization & World Bank, 2011). In 2023, just over half of Canadians with difficulties with print material indicated that they need alternate formats and around one-fifth had unmet needs for their required alternate formats (McDiarmid, 2023). The current study provides a quantitative examination of the prevalence of communication-related barriers encountered by persons with disabilities across various everyday situations.

The main goal of this report is to examine the associations between disability-related and sociodemographic characteristics and the likelihood of experiencing barriers to accessibility related to communication. The report starts with an examination of the prevalence of experiencing barriers to accessibility among persons with disabilities when communicating in different situations. Next, it focuses on how the prevalence of experiencing at least one such barrier varies based on disability-related factors and across sociodemographic groups. Finally, logistic regression modelling is used to determine the association of each variable with the odds of experiencing barriers related to communication, while controlling for sociodemographic and disability-related characteristics.

Data and Methods

Data source

The Canadian Survey on Disability

Statistics Canada has collected data on disability for more than 30 years. Since 2012, the Canadian Survey on Disability (CSD) has been Canada's main source of that data. The CSD provides comprehensive data on persons with disabilities for each province and territory. The survey also collects essential information on disability types and severity, supports for persons with disabilities, their employment profiles, income, education and other disability-specific information.

The survey population for the 2022 CSD was comprised of Canadians aged 15 years and over as of the date of the 2021 Census of the Population (May 2021) who were living in private dwellings. It excludes those living in institutions, on Canadian Armed Forces bases, on First Nations reserves, and those living in collective dwellings. As the institutionalized population is excluded, the data, particularly for the older age groups, should be interpreted accordingly.

The CSD uses Disability Screening Questions (DSQ) which are based on the social model of disability (Grondin, 2016). This model defines disability as the relationship between body function and structure, daily activities, and social participation, while recognizing the role of environmental factors. In keeping with this framework, the CSD targeted respondents who not only have a difficulty or impairment due to a long-term condition or health problem but also experience limitations in their daily activities. The CSD definition of disability includes anyone who reported being "sometimes", "often" or "always" limited in their daily activities due to a long-term condition or health problem, as well as anyone who reported being "rarely" limited if they were also unable to do certain tasks or could only do them with a lot of difficulty.

Measures⁸

Barriers to accessibility related to communication

The main outcome of interest is whether at least one barrier to accessibility related to communication was experienced at least sometimes in the last 12 months. Using a frequency scale (not applicable, never, sometimes, often or always), CSD respondents were asked to rate how often they experienced barriers⁹ communicating in any of the following situations because of their condition:

- a. In person with family or close friends
- b. In person with medical or health care professionals
- c. In person with others such as the general public, customer service or government representatives
- d. By voice over the phone with family or close friends
- e. By voice over the phone with medical or health care professionals
- f. By voice over the phone with others such as the general public, customer service or government representatives
- g. With an automated phone message system
- h. Using video conferencing
- i. Using social media or online chat forums to interact with others

For the purposes of this report, those who indicated that they experienced barriers “sometimes”, “often” or “always” were classified as “experienced a barrier”.

Disability-related characteristics

Disability-related factors can shape the experience of persons with disabilities with barriers to accessibility. Different types of disabilities, including those affecting speech, language, hearing and cognitive functions, are associated with distinct patterns of communication difficulties (Solarsh & Johnson, 2017). Persons with disabilities often need certain disability supports or help from paid or unpaid caregivers to overcome barriers to accessibility in their daily lives (Allen & Mor, 1997; Berardi et al., 2021; Wray, 2024). Having unmet needs in this regard is associated with decreased ability to participate in everyday activities and lower wellbeing ratings (Casey, 2015; Shooshtari et al., 2012; Zwicker et al., 2017). This may also serve to further marginalize persons with disabilities by isolating them from their social environments. The following disability-related characteristics are included in all analyses conducted.

Disability types

The CSD collects information on ten disability types: seeing, hearing, mobility, flexibility, dexterity, pain-related, learning, developmental, mental health-related and memory. To meet the definition of a disability for a particular type, respondents must have reported being “sometimes”, “often” or “always” limited in their daily activities due to a long-term condition or health problem or reported being “rarely” limited if they were also unable to do certain tasks or could only do them with a lot of difficulty.¹⁰ An additional variable that counts the number of co-occurring disability types is included in the descriptive analysis.

Severity

A global severity score was developed for the CSD, which was calculated for each person using: the number of disability types that a person has, the level of difficulty experienced in performing certain tasks, and the frequency of activity limitations. To simplify the concept of severity, four severity classes were established: mild, moderate, severe and very severe. Note that the name assigned to each class is intended to facilitate use of a severity score and is not a label or judgement concerning the person’s level of disability. In this report, any reference to severity is based on the global severity classes.

8. In order to maintain comparability across the four reports in this series on barriers to accessibility, the same set of disability-related and sociodemographic characteristics are included in the analysis.

9. Using a simplified version of the definition of a barrier included within the ACA, respondents were instructed to think of a barrier as “something that could be removed, modified or done differently”.

10. The exception to this is developmental disabilities, where a person who has been diagnosed with a developmental disorder is identified as having a disability regardless of the level of difficulty or frequency of activity limitation.

Unmet needs for disability supports

The 2022 CSD asks several questions regarding needs for various disability supports, including personal aids and assistive devices (e.g., canes, walkers, specialized software or architectural features in the home such as widened doorways and ramps), prescription medication, as well as access to healthcare therapies and services (e.g., counselling services, physiotherapy). In this report, an unmet need for disability supports refers to instances in which persons with disabilities need but do not have at least one type of disability support – whether it be for aids and assistive devices, medication or access to healthcare therapies and services.

Unmet needs for help with everyday activities

The 2022 CSD asks questions regarding the need for help with any of the following everyday activities: preparing meals, everyday housework, heavy household chores, getting to appointments or running errands, looking after personal finances, personal care, basic medical care at home, moving around inside a residence or other types of help. The help could be provided by family, friends, neighbours or organizations and could include both paid and unpaid work. In this report, an unmet need for help with everyday activities refers to instances in which persons with disabilities need help they don't usually receive or need more help than they usually receive with at least one type of everyday activity.

Sociodemographic characteristics

Intersectional approaches are consistent with the social model of disability and consider how disability interacts with other social characteristics to create distinct experiences (Björnsdóttir & Traustadóttir, 2010). For example, among youth and young adults with disabilities, those belonging to racialized groups tend to have worse school and work outcomes (Lindsay et al., 2022). Communication patterns and norms are shaped by many social factors which can inform how certain conditions and associated challenges manifest among persons with disabilities. For example, prior research has demonstrated differences in unmet needs for communication devices by first language spoken among Canadian youth with disabilities (Lindsay & Tsybina, 2011), gender differences in communication difficulties associated with specific conditions such as Autism (Hartley & Sikora, 2009; Lai et al., 2011), and increased challenges with healthcare communication for immigrants and refugees with disabilities (Bogenschutz, 2014). Including sociodemographic factors that have their own marginalizing effects within the analysis is important to identify subpopulations who may be more likely to experience barriers to accessibility. These sociodemographic characteristics include age, gender, 2SLGBTQ+ identity, racialized groups, and immigrant status.^{11,12}

Persons with disabilities often cite cost as a reason for unmet needs for supports (Hébert et al., 2024), therefore, income level is essential to consider when examining issues related to accessibility. Place of residence, categorized into rural areas and urban population centres of different sizes, is included since it can shape patterns of everyday interactions and the availability of alternative communication formats and technologies. Geographic factors are important to consider when examining issues related to social inclusion and participation (Keefe et al., 2006; Menec et al., 2019; Repke & Ipsen, 2020; Whelan et al., 2024).

Age was categorized into four groups: 15 to 24 years, 25 to 44 years, 45 to 64 years and 65 years and over. For gender, a two-category gender variable was used to protect the confidentiality of non-binary persons, given the relatively small size of this population in Canada. More specifically, non-binary persons have been redistributed into the “men” and “women” categories. The category of “men” includes cisgender and transgender men (and/or boys), as well as some non-binary persons, while “women” includes cisgender and transgender women (and/or girls), as well as some non-binary persons (in tables these categories are denoted as “men+” and “women+”). Using questions on sex at birth, gender identity and sexual orientation, the 2SLGBTQ+ variable includes those who reported being lesbian, gay, bisexual, pansexual, or another sexual orientation that is not heterosexual (LGB+), as well as non-binary persons and transgender women and men.¹³

11. Indigenous identity is another important intersectional sociodemographic characteristic to study, however, proper examination of experiences of Indigenous persons with disabilities would require more thorough disaggregated analysis that is beyond the scope of the present study.

12. Knowledge of official languages (whether the person can conduct a conversation in English only, French only, in both or in neither language) is another important intersectional sociodemographic characteristic to study in relation to barriers related to communication, however, due to sample size issues (for the category of “neither language”) it was not possible to include it in the analysis.

13. The Government of Canada adopted the acronym 2SLGBTQI+ to refer to Two-Spirit, lesbian, gay, bisexual, transgender, queer and intersex people and those who use other terms related to gender and sexual diversity. Statistics Canada uses the acronym 2SLGBTQ+ for data analysis purposes, as information is not yet collected specifically about intersex people in surveys.

Immigrant status was categorized as immigrant, non-immigrant and non-permanent resident.¹⁴ “Immigrant” refers to a person who is, or who has ever been, a landed immigrant or permanent resident. Immigrants who have obtained Canadian citizenship by naturalization are included in this group.¹⁵ “Racialized” refers to whether a person is a visible minority as defined by the *Employment Equity Act* as “persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour”. The visible minority population consists mainly of the following groups: South Asian, Chinese, Black, Filipino, Arab, Latin American, Southeast Asian, West Asian, Korean and Japanese. The non-racialized category includes those who identified as White only and excludes Indigenous people.

Income was represented by quintiles which were based on after-tax economic family income adjusted by family size.¹⁶ Place of residence differentiates between rural areas and populations centres of different sizes. Population centres are classified into three groups, depending on the size of their Census population: small population centres, with a Census population between 1,000 and 29,999; medium population centres, with a Census population between 30,000 and 99,999; and large urban population centres, with a Census population of 100,000 or more. Rural areas are classified as outside of population centres.

Analysis

Descriptive statistics were used to estimate the prevalence of experiencing barriers to accessibility related to communication in the last 12 months among persons with disabilities aged 15 years and over. In all instances, proportions are calculated based on the entire population of persons with disabilities.¹⁷

Logistic regression modeling was used to identify the key factors associated with higher or lower odds of experiencing barriers to accessibility among persons with disabilities, while controlling for the effects of other disability-related and socio-demographic covariates at the same time. Given that the severity variable includes in its definition the number of disability types a person has, the latter is excluded from the logistic regression models. The inclusion of both severity and all ten disability types in a single regression model introduces multicollinearity issues. Accordingly, the ten disability type variables were assessed in a separate logistic regression model that excludes the severity variable, but controls for all other covariates.

Findings from the logistic regression analyses are reported using odds ratios (ORs) and their 95% confidence intervals (CI). An odds ratio represents the ratio of the odds of an event occurring (i.e., experiencing at least one barrier to accessibility) for one group vs. the odds of the same event occurring for a reference group. Accordingly, an odds ratio tells us about the difference in odds of experiencing such barriers between groups after controlling for other predictors in the model and could point to: no difference in odds (OR=1), higher odds for a given group compared with a reference group (OR>1), or lower odds for a given group compared with a reference group (OR<1). Higher odds ratios indicate that a group is more likely to experience barriers compared with the reference group.

Interpreting odds ratio results should be done with caution. The value of odds ratio estimates determines the direction of the effect (i.e., whether a certain group has higher or lower odds of experiencing barriers) but their magnitude may vary given a different set of covariates or a different sample; they are accordingly challenging to interpret and should not be compared with odds ratios from other analyses (Norton et al., 2018).

For this report, the significance level was set at $p < 0.05$. All estimates were weighted to represent the Canadian population with disabilities aged 15 years and over. The bootstrap technique was used to estimate variance and 95% confidence intervals to account for the complex survey design.

14. Analysis includes all three groups but the results for the non-permanent resident category are not presented in the tables.

15. Information on immigrant status was obtained from the 2021 Census and therefore includes immigrants who were admitted to Canada on or prior to May 11, 2021.

16. Income information was obtained from the 2021 Census and therefore reflects the reference year of 2020.

17. Missing values were not excluded from the denominator so that proportions can be representative of the entire population of persons with disabilities. This improves comparability of proportions within and across domains, given that each has a different set of missing values.

Results and Discussion

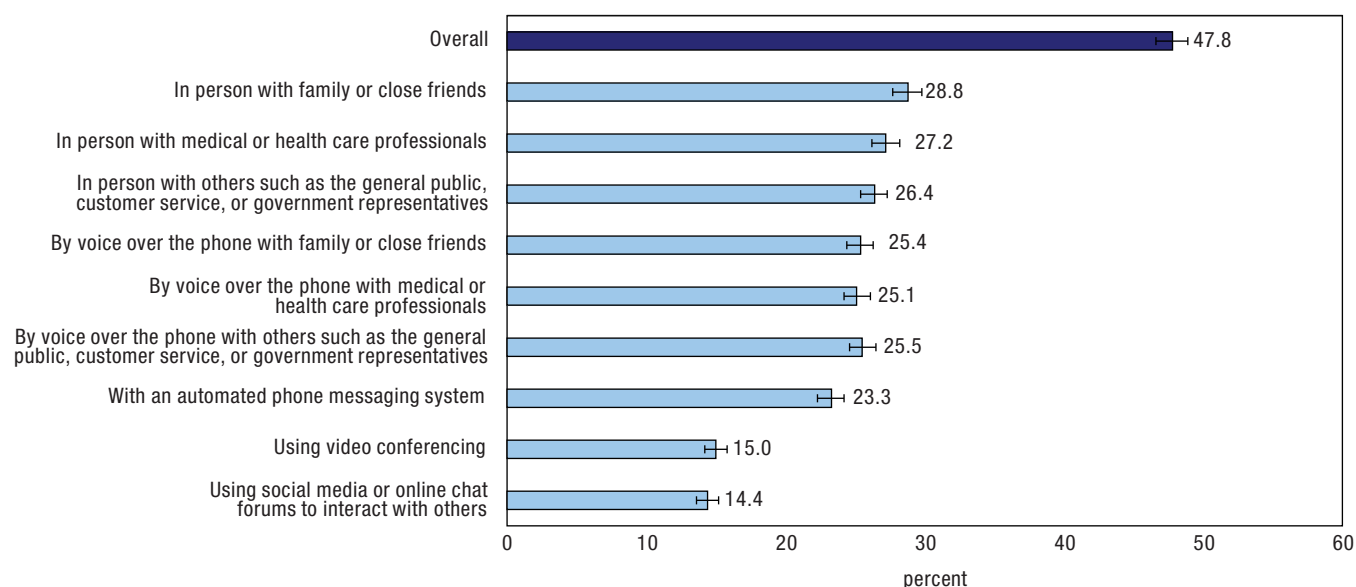
Prevalence of experiencing barriers to accessibility related to communication

Approximately half of persons with disabilities experience barriers related to communication

Of the nearly 8 million persons with disabilities aged 15 years and over in 2022, approximately 3.8 million (48%) experienced one or more barriers to accessibility when communicating in several situations at least sometimes during the last 12 months. Experiencing barriers was most common when communicating “in person with family or close friends” (29%), “in person with medical or health care professionals” (27%) and “in person with others such as the general public, customer service or government representatives” (26%) (Chart 1). Similarly, around a quarter of persons with disabilities experienced barriers when communicating by voice over the phone in different situations. The prevalence dropped to 15% and 14% when communicating “using video conferencing” and “using social media or online chat forums to interact with others”, respectively.¹⁸

Chart 1

Barriers to accessibility related to communication, persons with disabilities aged 15 years and over, by source, Canada, 2022



Note: The overall calculation includes persons who experienced barriers from at least one of these sources. The categories include persons who were deemed to have experienced a barrier if they encountered it “at least sometimes” in the last 12 months.

Source: Statistics Canada, Canadian Survey on Disability, 2022.

18. Irrespective of the situation, persons with “more severe” (severe or very severe) disabilities were significantly more likely to experience barriers to accessibility related to communication than those with “milder” (mild or moderate) disabilities. For example, persons with “more severe” disabilities were more likely than those with “milder” disabilities to experience such barriers when communicating “in person with family or close friends” (38% vs. 22%) and “in person with medical or healthcare professionals” (39% vs. 19%). For more disaggregated information by severity class and frequency of experiencing barriers, see [Barriers to accessibility for persons with disabilities aged 15 years and over, by disability severity, age group and gender](#) (Statistics Canada, 2024).

Prevalence of experiencing barriers to accessibility related to communication increases with disability severity and number of co-occurring disability types

As disability severity increased, so did the proportion of persons with disabilities who experienced at least one barrier to accessibility related to communication. Persons with very severe disabilities (66%) were more likely to experience such barriers compared with those with mild disabilities (33%) (Table 1).

Persons with multiple disabilities were more likely to experience barriers to accessibility related to communication compared with those with a single disability. For example, those with four or more disability types (64%) were twice as likely to experience at least one barrier to accessibility than those with one disability type (32%).

More than seven in ten (71%) persons with disabilities have two or more co-occurring disability types (Hébert et al., 2024). The co-occurrence of disability types means that experiences of barriers may be a result of a specific disability type or a combination of disability types. As such, this report did not focus on descriptive analysis by disability type, however, prevalence of experiencing barriers to accessibility related to communication by disability type is presented in Chart 2 (Annex) for information purposes. Logistic regression modelling (discussed in the next section) was utilized to examine the association between each disability type and the likelihood of experiencing barriers while controlling for the effect of all other disability types (Table 3).

Persons with disabilities with unmet needs for disability supports (i.e., aids and assistive devices, medication or healthcare therapies and services) were more likely to experience at least one barrier to accessibility related to communication compared with those who did not have any unmet needs (57% vs. 35%). Similarly, those who reported unmet needs for help with everyday activities were more likely to experience such barriers compared with those who had their needs met (63% vs. 40%) (Table 1).

Table 1
Barriers to accessibility related to communication, persons with disabilities aged 15 years and over, by select characteristics, Canada, 2022

Characteristics	Percent	95% confidence limits	
		from	to
Overall	47.8	46.7	49.0
Severity of disability			
Mild (reference category)	33.4	31.7	35.2
Moderate	47.3*	44.7	49.8
Severe	57.8*	55.3	60.3
Very severe	65.5*	63.1	67.8
Number of disability types			
1 (reference category)	31.5	29.5	33.5
2 to 3	45.8*	43.9	47.8
4 or more	64.1*	62.2	66.0
Unmet needs for disability supports			
Needs met (reference category)	35.1	33.4	36.8
Unmet needs	57.4*	55.8	58.9
Unmet needs for help with everyday activities			
Needs met (reference category)	39.5	38.1	40.9
Unmet needs	63.1*	61.2	65.0
Age group			
15 to 24 years (reference category)	53.8	51.2	56.4
25 to 44 years	48.7*	46.6	50.9
45 to 64 years	42.9*	40.7	45.2
65 years and over	50.4*	48.4	52.4
Gender			
Men+ (reference category)	46.6	44.8	48.3
Women+	48.8	47.3	50.3
2SLGBTQ+			
Non-2SLGBTQ+ (reference category)	45.2	43.8	46.5
2SLGBTQ+	61.0*	57.6	64.4
Racialized group			
Non-racialized, non-Indigenous groups (reference category)	47.8	46.6	49.1
Racialized groups	45.8	42.5	49.1
Immigrant status			
Non-immigrants (reference category)	47.6	46.4	48.8
Immigrants	49.1	46.2	51.9
Income quintile			
Fifth quintile, highest income (reference category)	43.2	40.3	46.2
Fourth quintile	43.9	41.4	46.5
Third quintile	49.5*	47.0	52.1
Second quintile	47.7*	45.3	50.2
First quintile, lowest income	52.6*	50.3	55.0
Place of residence			
Rural areas (reference category)	46.8	44.3	49.2
Small population centres	49.7	46.8	52.7
Medium population centres	50.8	47.2	54.4
Large urban population centres	47.1	45.5	48.7

* significantly different from reference category ($p < 0.05$)

Notes: Persons were deemed to have experienced a barrier if they encountered it "at least sometimes" in the last 12 months. Unmet needs for disability supports refers to unmet needs for aids and assistive devices, medications (due to cost), or healthcare therapies and services. Unmet needs for help with everyday activities includes help with preparing meals, everyday housework, heavy household chores, getting to appointments or running errands, looking after personal finances, personal care, basic medical care at home, moving around inside a residence, or other types of help. The overall calculation includes persons who experienced barriers with at least one of these features. The categories include persons who were deemed to have experienced a barrier if they encountered it "at least sometimes" in the last 12 months. The 2SLGBTQ+ variable groups all LGB+ and nonbinary and transgender persons into a single category to facilitate analysis of this small population. In addition to the two categories shown in the table, this variable included an 'unknown' category to capture proxy respondents who were not asked this question and who otherwise would have been excluded from the sample used to estimate the model.

In this release, data on 'racialized groups' is measured with the 'visible minority' variable. The 'non-racialized group' is measured with the category 'Not a visible minority' of the variable, excluding Indigenous respondents. For the purpose of this study, Indigenous respondents are not part of the racialized group, nor the non-racialized group.

Source: Statistics Canada, Canadian Survey on Disability, 2022.

Prevalence of experiencing barriers to accessibility related to communication is higher among youth, 2SLGBTQ+ persons and those in lower income groups

Among persons with disabilities, the proportion who experienced at least one barrier to accessibility related to communication varied by age, 2SLGBTQ+ identity and income (Table 1). Persons with disabilities aged 65 years and over (50%), 45 to 64 years (43%) and 25 to 44 years (49%) were all less likely to experience such barriers compared with those aged 15 to 24 years (54%).

2SLGBTQ+ persons with disabilities (61%) were more likely than their non-2SLGBTQ+ counterparts (45%) to experience at least one barrier to accessibility related to communication. Encountering barriers to accessibility related to communication was more prevalent among persons with disabilities in lower income groups. For example, the proportion of persons with disabilities who reported such barriers increased from 43% among those with the highest income to 53% among those with the lowest income.

There were no significant differences in the prevalence of experiencing barriers between: men and women, immigrants and non-immigrants, racialized and non-racialized groups, or persons with disabilities living in rural areas and those living in population centres of different sizes.

Key factors associated with the likelihood of experiencing barriers to accessibility related to communication

While descriptive analyses highlighted how some groups are more likely to experience barriers than others, they do not simultaneously account for other characteristics that may influence the likelihood of experiencing barriers. Logistic regression modeling was used to identify the key factors associated with the likelihood of experiencing barriers to accessibility among persons with disabilities, while controlling for the effect of other disability-related and sociodemographic covariates at the same time.

More severe disabilities and unmet needs for disability supports or help with everyday activities are associated with higher odds of experiencing barriers

The importance of disability-related factors was further confirmed by the logistic regression modelling. After controlling for other covariates, the odds of experiencing at least one barrier to accessibility related to communication increased with severity of disabilities. Compared with persons with mild disabilities, those with very severe disabilities faced nearly three times higher odds (OR=2.7; 95% CI: 2.3, 3.1) of experiencing such barriers (Table 2). When all other factors were considered, persons with disabilities who reported at least one unmet need for disability supports (OR=2.0; 95% CI: 1.8, 2.2) had higher odds of experiencing barriers to accessibility compared with persons who had their needs met for these supports. Likewise, persons with at least one unmet need for help with everyday activities had higher odds (OR=1.7; 95% CI: 1.5, 1.9) of experiencing at least one barrier compared with those who had their needs met. Qualitative research has demonstrated that access to different types of support (e.g., assistive technology, social support) can impact the everyday participation of persons with disabilities (Hammel et al., 2015).

Table 2
Results from logistic regression showing the associations between the experience of barriers to accessibility related to communication, disability-related and sociodemographic characteristics, persons with disabilities aged 15 years and over, Canada, 2022

Characteristics	Odds ratio	95% confidence limits	
		from	to
Severity of disability			
Mild (reference category)	1.0	...	...
Moderate	1.6*	1.4	1.8
Severe	2.2*	1.9	2.6
Very severe	2.7*	2.3	3.1
Unmet needs for disability supports			
Needs met (reference category)	1.0	...	...
Unmet needs	2.0*	1.8	2.2
Unmet needs for help with everyday activities			
Needs met (reference category)	1.0	...	...
Unmet needs	1.7*	1.5	1.9
Age group			
15 to 24 years (reference category)	1.0	...	...
25 to 44 years	0.8*	0.7	1.0
45 to 64 years	0.6*	0.5	0.7
65 years and over	0.8*	0.6	0.9
Gender			
Men+ (reference category)	1.0	...	...
Women+	1.0	0.9	1.1
2SLGBTQ+			
Non-2SLGBTQ+ (reference category)	1.0	...	...
2SLGBTQ+	1.8*	1.5	2.1
Racialized group			
Non-racialized, non-Indigenous groups (reference category)	1.0	...	...
Racialized groups	0.8*	0.7	1.0
Immigrant status			
Non-immigrants (reference category)	1.0	...	...
Immigrants	1.1	0.9	1.3
Income quintile			
Fifth quintile, highest income (reference category)	1.0	...	...
Fourth quintile	0.9	0.8	1.1
Third quintile	1.1	0.9	1.3
Second quintile	1.0	0.8	1.2
First quintile, lowest income	1.1	0.9	1.2
Place of residence			
Rural areas (reference category)	1.0	...	...
Small population centres	1.1	0.9	1.3
Medium population centres	1.1	0.9	1.4
Large urban population centres	1.0	0.9	1.1

... not applicable

* significantly different from reference category ($p < 0.05$)

Notes: Persons were deemed to have experienced a barrier if they encountered it "at least sometimes" in the last 12 months. Unmet needs for disability supports refers to unmet needs for aids and assistive devices, medications (due to cost), or healthcare therapies and services. Unmet needs for help with everyday activities includes help with preparing meals, everyday housework, heavy household chores, getting to appointments or running errands, looking after personal finances, personal care, basic medical care at home, moving around inside a residence, or other types of help. The 2SLGBTQ+ variable groups all LGB+ and nonbinary and transgender persons into a single category to facilitate analysis of this small population. In addition to the two categories shown in the table, this variable included an 'unknown' category to capture proxy respondents who were not asked this question and who otherwise would have been excluded from the sample used to estimate the model. In this release, data on 'racialized groups' is measured with the 'visible minority' variable. The 'non-racialized group' is measured with the category 'Not a visible minority' of the variable, excluding Indigenous respondents. For the purpose of this study, Indigenous respondents are not part of the racialized group, nor the non-racialized group.

Source: Statistics Canada, Canadian Survey on Disability, 2022.

The likelihood of experiencing barriers related to communication is higher among 2SLGBTQ+ persons and lower among older age groups and racialized groups

When it comes to sociodemographic characteristics, age, 2SLGBTQ+ identity and belonging to a racialized group were significant predictors of experiencing at least one barrier to accessibility related to communication, after controlling for other covariates. While significant differences by income level were observed in the descriptive analyses, these differences did not persist when all other variables were held constant.

The odds of experiencing one or more barriers related to communication varied with age. Compared with youth with disabilities (15 to 24 years), those aged 25 to 44 (OR=0.8; 95% CI: 0.7, 1.0), 45 to 64 (OR=0.6; 95% CI: 0.5, 0.7) and 65 years and over (OR=0.8; 95% CI: 0.6, 0.9) had lower odds of experiencing such barriers (Table 2). Prior research has documented higher rates of unmet healthcare and communication needs among young adults with disabilities compared with other age groups, which can be attributed to the transitional period to adulthood and independent living (Marshall, 2011; McNaughton et al., 2012). 2SLGBTQ+ persons with disabilities had higher odds (OR=1.8; 95% CI: 1.5, 2.1) of experiencing such barriers compared with non-2SLGBTQ+ persons with disabilities. With multiple socially marginalized identities, 2SLGBTQ+ persons with disabilities may face more complex barriers related to communication. For example, negative interactions between 2SLGBTQ+ persons with disabilities and their health care providers can influence their choice to disclose information about their identity or disability that can impact their health care needs (Mulcahy et al., 2023).

Persons with disabilities who belonged to racialized groups had lower odds (OR=0.8; 95% CI: 0.7, 1.0) of experiencing barriers related to communication compared with those who belonged to non-racialized and non-Indigenous groups.

Developmental, hearing, mental health-related, learning, memory and dexterity disabilities are associated with higher odds of experiencing barriers

Given that 71% of persons with disabilities have two or more co-occurring disability types (Hébert et al., 2024), the effect of each disability type must be determined while controlling for the effects of all other disability types. Using a separate logistic regression model, the likelihood of encountering at least one barrier to accessibility related to communication was examined when considering all ten disability types as predictors and controlling for other covariates.

The odds of experiencing barriers related to communication were higher among those with developmental (OR=2.7; 95% CI: 2.1, 3.6), hearing (OR=2.5; 95% CI: 2.2, 3.0), mental health-related (OR=2.0; 95% CI: 1.8, 2.3), learning (OR=1.9; 95% CI: 1.6, 2.2), memory (OR=1.6; 95% CI: 1.3, 1.9), or dexterity (OR=1.3; 95% CI: 1.1, 1.6) disabilities (Table 3). However, pain-related disabilities were associated with lower odds of experiencing barriers (OR=0.8; 95% CI: 0.7, 1.0). No significant differences in odds were found based on having seeing, mobility or flexibility disabilities.

These findings are consistent with extensive research highlighting the prevalence of communication difficulties among persons with developmental and/or intellectual¹⁹ disabilities, and how such barriers impact their social participation, employment and healthcare experiences (Beukelman & Light, 2020; Cashin et al., 2024; Smith et al., 2020). Similarly, communication barriers in healthcare are well documented for persons who are Deaf or hard of hearing (Lezzoni et al., 2004; Rannefeld et al., 2023; Terry et al., 2024).

19. As per the [American Psychiatric Association definition](#), "intellectual disability" refers to neurodevelopmental conditions that affect cognitive and adaptive functioning.

Table 3
Results from logistic regression showing the associations between the experience of barriers to accessibility related to communication, disability type and sociodemographic characteristics, persons with disabilities aged 15 years and over, Canada, 2022

Characteristics	Odds ratio	95% confidence limits	
		from	to
Seeing disability			
Did not have a seeing disability (reference category)	1.0	...	...
Had a seeing disability	1.0	0.9	1.1
Hearing disability			
Did not have a hearing disability (reference category)	1.0	...	...
Had a hearing disability	2.5*	2.2	3.0
Mobility disability			
Did not have a mobility disability (reference category)	1.0	...	...
Had a mobility disability	1.1	0.9	1.3
Flexibility disability			
Did not have a flexibility disability (reference category)	1.0	...	...
Had a flexibility disability	1.1	0.9	1.3
Dexterity disability			
Did not have a dexterity disability (reference category)	1.0	...	...
Had a dexterity disability	1.3*	1.1	1.6
Pain-related disability			
Did not have a pain-related disability (reference category)	1.0	...	...
Had a pain-related disability	0.8*	0.7	1.0
Learning disability			
Did not have a learning disability (reference category)	1.0	...	...
Had a learning disability	1.9*	1.6	2.2
Developmental disability			
Did not have a developmental disability or disorder (reference category)	1.0	...	...
Had a developmental disability or disorder	2.7*	2.1	3.6
Mental health-related disability			
Did not have a mental health-related disability (reference category)	1.0	...	...
Had a mental health-related disability	2.0*	1.8	2.3
Memory disability			
Did not have a memory disability (reference category)	1.0	...	...
Had a memory disability	1.6*	1.3	1.9

... not applicable

* significantly different from reference category ($p < 0.05$)

Notes: Persons were deemed to have experienced a barrier if they encountered it "at least sometimes" in the last 12 months.

The model was adjusted for unmet needs for disability supports and help with everyday activities, age, gender, 2SLGBTQ+ identity, immigrant status, racialized group, income quintile, and place of residence. For the full model with all covariates, see Table 4 in the Annex.

Source: Statistics Canada, Canadian Survey on Disability, 2022.

Conclusion

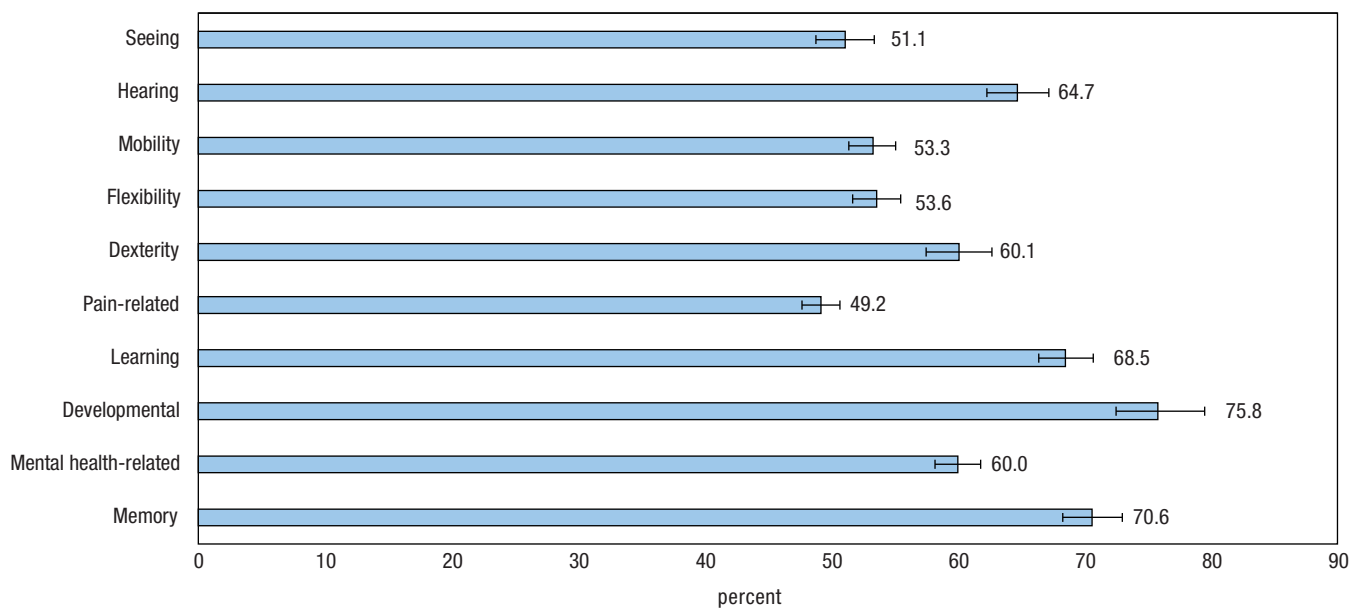
This report demonstrates the importance of considering severity, type of disability, unmet needs, age, 2SLGBTQ+ identity and racialized identity when examining experiences of barriers to accessibility related to communication among persons with disabilities. By identifying disability-related and sociodemographic factors that place persons with disabilities at higher risk of experiencing such barriers, these findings can inform programs and interventions aimed at creating more inclusive environments with fewer barriers related to communication. For example, the strong association between unmet needs for disability supports or help with everyday activities and the likelihood of experiencing barriers suggests that interventions aimed at addressing unmet needs could be effective in enhancing social participation of persons with disabilities. Similarly, given the finding that having a developmental, hearing or mental health-related disability is strongly associated with experiencing such barriers, it is important to identify and address the specific communication needs of persons with different types of disabilities.

Further research is needed to examine the various ways in which such barriers to accessibility are experienced within different contexts and for different subpopulations, utilizing both quantitative and qualitative methods. For instance, more disaggregated and detailed analysis within age groups can provide important insights. Similarly, more qualitative research can inform our understanding of higher odds of experiencing barriers among 2SLGBTQ+ persons with disabilities. Communication is a fundamental need that persons with disabilities may have difficulties with as it impacts their ability to access information, express needs and be socially engaged. Eliminating barriers to accessibility related to communication is essential for the full participation and inclusion of persons with disabilities in social, educational, employment and healthcare contexts (Beukelman & Light, 2020). More in depth research is needed to delineate the types of difficulties experienced and which accommodations would be most beneficial.

Annex

Chart 2

Barriers to accessibility related to communication, persons with disabilities aged 15 years and over, by disability type, Canada, 2022



Notes: Persons were deemed to have experienced a barrier if they encountered it "at least sometimes" in the last 12 months.

Significance tests were not performed since the disability types are not mutually exclusive groups. When analyzing the prevalence of encountering barriers to accessibility based on disability type, it's important to practice caution when interpreting the data as persons with disabilities often have multiple co-occurring disability types.

Source: Statistics Canada, Canadian Survey on Disability, 2022.

Table 4
Results from logistic regression (full model) showing the associations between the experience of barriers to accessibility related to communication, disability type and sociodemographic characteristics, persons with disabilities aged 15 years and over, Canada, 2022

Characteristics	Odds ratio	95% confidence limits	
		from	to
Seeing disability			
Did not have a seeing disability (reference category)	1.0	...	...
Had a seeing disability	1.0	0.9	1.1
Hearing disability			
Did not have a hearing disability (reference category)	1.0	...	...
Had a hearing disability	2.5*	2.2	3.0
Mobility disability			
Did not have a mobility disability (reference category)	1.0	...	...
Had a mobility disability	1.1	0.9	1.3
Flexibility disability			
Did not have a flexibility disability (reference category)	1.0	...	...
Had a flexibility disability	1.1	0.9	1.3
Dexterity disability			
Did not have a dexterity disability (reference category)	1.0	...	...
Had a dexterity disability	1.3*	1.1	1.6
Pain-related disability			
Did not have a pain-related disability (reference category)	1.0	...	...
Had a pain-related disability	0.8*	0.7	1.0
Learning disability			
Did not have a learning disability (reference category)	1.0	...	...
Had a learning disability	1.9*	1.6	2.2
Developmental disability			
Did not have a developmental disability or disorder (reference category)	1.0	...	...
Had a developmental disability or disorder	2.7*	2.1	3.6
Mental health-related disability			
Did not have a mental health-related disability (reference category)	1.0	...	...
Had a mental health-related disability	2.0*	1.8	2.3
Memory disability			
Did not have a memory disability (reference category)	1.0	...	...
Had a memory disability	1.6*	1.3	1.9
Unmet needs for disability supports			
Needs met (reference category)	1.0	...	...
Unmet needs	1.9*	1.7	2.2
Unmet needs for help with everyday activities			
Needs met (reference category)	1.0	...	...
Unmet needs	1.8*	1.6	2.1
Age group			
15 to 24 years (reference category)	1.0	...	...
25 to 44 years	0.9	0.8	1.1
45 to 64 years	0.8	0.7	1.0
65 years and over	1.4*	1.1	1.7
Gender			
Men+ (reference category)	1.0	...	...
Women+	1.0	0.9	1.1
2SLGBTQ+			
Non-2SLGBTQ+ (reference category)	1.0	...	...
2SLGBTQ+	1.6*	1.3	1.9
Racialized group			
Non-racialized, non-Indigenous groups (reference category)	1.0	...	...
Racialized groups	0.9	0.7	1.1
Immigrant status			
Non-immigrants (reference category)	1.0	...	...
Immigrants	1.1	0.9	1.4
Income quintile			
Fifth quintile, highest income (reference category)	1.0	...	...
Fourth quintile	0.9	0.8	1.1
Third quintile	1.1	0.9	1.4
Second quintile	1.0	0.8	1.2
First quintile, lowest income	1.0	0.9	1.3

Table 4
Results from logistic regression (full model) showing the associations between the experience of barriers to accessibility related to communication, disability type and sociodemographic characteristics, persons with disabilities aged 15 years and over, Canada, 2022

Characteristics	Odds ratio	95% confidence limits	
		from	to
Place of residence			
Rural areas (reference category)	1.0	...	...
Small population centres	1.1	0.9	1.4
Medium population centres	1.2	0.9	1.5
Large urban population centres	1.0	0.8	1.1

... not applicable

* significantly different from reference category ($p < 0.05$)

Notes: Persons were deemed to have experienced a barrier if they encountered it "at least sometimes" in the last 12 months. Unmet needs for disability supports refers to unmet needs for aids and assistive devices, medications (due to cost), or healthcare therapies and services. Unmet needs for help with everyday activities includes help with preparing meals, everyday housework, heavy household chores, getting to appointments or running errands, looking after personal finances, personal care, basic medical care at home, moving around inside a residence, or other types of help. The 2SLGBTQ+ variable groups all LGB+ and nonbinary and transgender persons into a single category to facilitate analysis of this small population. In addition to the two categories shown in the table, this variable included an 'unknown' category to capture proxy respondents who were not asked this question and who otherwise would have been excluded from the sample used to estimate the model. In this release, data on 'racialized groups' is measured with the 'visible minority' variable. The 'non-racialized group' is measured with the category 'Not a visible minority' of the variable, excluding Indigenous respondents. For the purpose of this study, Indigenous respondents are not part of the racialized group, nor the non-racialized group.

Source: Statistics Canada, Canadian Survey on Disability, 2022.

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