Reports on Disability and Accessibility in Canada

Print material accessibility in Canada, 2023

by Carrly McDiarmid

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Print material accessibility in Canada, 2023

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Key findings

- Among the 5.2 million Canadians who indicated they had a difficulty with print material, 77.4% had difficulty seeing words in print, 25.0% had difficulty holding or turning pages of print material, and 42.2% had difficulty reading or understanding words in print.
- Over one-third (35.8%) of those who had difficulties with print materials use reading materials in at least one alternate format.
- The most commonly used alternate formats were large print versions, accessible file formats and audio formats.
- Younger Canadians who had difficulties with print material were more likely than their older counterparts to report unmet needs for alternate formats.
- Around seven in ten persons who had difficulties with print material encountered at least one barrier when trying to access the alternate formats they needed.

Introduction

Following the implementation of the <u>Accessible Canada Act</u> (ACA) in 2019, an increased emphasis has been placed on identifying, removing and preventing barriers to accessibility, to support the goal of a barrier-free Canada by 2040. Many Canadians experience barriers in different areas of their daily lives, including obtaining print material in formats that are accessible to them. These formats can include large print, electronic, audio, or braille versions or documents that have accessibility features built in. It has been previously estimated that only 5-7% of published products are made available in an alternate format.¹

A better understanding of the characteristics of those with difficulties with print material and the barriers they face when accessing the formats they need can lead to improved design and delivery of programs and services to better support and meet the needs of this population.

Using data from the Survey on Accessible Print Materials (SAPM), this report examines the experiences of persons with difficulties with print material. It explores the use of assistive devices for difficulties with print material, requirements for alternate formats, how these alternate formats are accessed, and barriers to accessing them.

Around 5.2 million Canadians report a difficulty with print material

According to the Survey on Accessible Print Materials (SAPM), around 5.2 million Canadians had a difficulty with print material in 2023.² When examined by type of difficulty reported, 77.4% had difficulty seeing words in print, 25.0% had difficulty holding or turning pages of print material, and 42.2% had difficulty reading or understanding words in print (Table 1).^{3,4}

^{1.} Harpur, Paul. 2017. "Discrimination, Copyright and Equality: Opening the E-Book for the Print-Disabled". Cambridge University Press.

^{2.} Estimates in this article referring to the national average or Canada rate exclude the territories.

^{3.} The difficulty with print material categories include those who indicated they have "some difficulty", "a lot of difficulty", or "cannot do at all".

Respondents could have indicated more than one type of difficulty with print material.

Table 1
Type of difficulty, persons with difficulties with print material, by gender and age group, aged 15 years and older,
Canada, 2023

			95% confidence interval	
		_	lower	upper
	Number	Percent	percent	
Difficulty seeing words in print				
Total	3,981,650	77.4	75.4	79.4
Gender				
Men+ (reference category)	2,292,090	79.9	77.3	82.4
Women+	1,689,560	74.3*	71.4	77.2
Age group				
15 to 34 years (reference category)	509,610	59.7	55.0	64.4
35 to 64 years	1,869,890	82.3*	79.6	85.1
65 years and older	1,602,150	79.4*	76.2	82.6
Difficulty holding or turning pages of print material				
Total	1,285,080	25.0	23.0	27.0
Gender				
Men+ (reference category)	687,210	23.9	21.3	26.6
Women+	597,870	26.4	23.3	29.4
Age group				
15 to 34 years (reference category)	180,810	21.1	17.2	25.0
35 to 64 years	452,590	19.9	17.2	22.7
65 years and older	651,680	32.4*	28.8	36.0
Difficulty reading or understanding words in print				
Total	2,171,680	42.2	40.0	44.5
Gender				
Men+ (reference category)	1,150,960	40.1	37.1	43.2
Women+	1,020,720	44.9*	41.5	48.3
Age group				
15 to 34 years (reference category)	512,400	60.1	55.5	64.7
35 to 64 years	835,130	36.7*	33.4	40.0
65 years and older	824,150	40.9*	36.9	44.9

 $^{^{\}star}$ significantly different from reference category (p < 0.05)

Note: The difficulty with print material categories include those who indicated they have "some difficulty", "a lot of difficulty", or "cannot do at all". Respondents could have reported more than one difficulty type.

Source: Statistics Canada, Survey on Accessible Print Materials, 2023.

Women were less likely to report having a difficulty seeing words in print, but more likely to report difficulties with reading or understanding words in print, when compared to men.^{5,6,7} There were no gender differences in terms of reporting a difficulty related to holding or turning the pages of print material. Those aged 65 years and older were more likely to have difficulty holding or turning the pages of print material (32.4%) than those aged 15 to 34 years (21.1%). Younger Canadians (aged 15 to 34 years) were the least likely to report having a difficulty seeing words in print (59.7%), compared to their older counterparts (aged 35 to 64 years or 65 years and older; 82.3%, 79.4% respectively). Conversely, those aged 15 to 34 years were more likely to report having difficulties related to reading or understanding words in print (60.1%), compared to the older age groups (aged 35 to 64 years or 65 years and older; 36.7%, 40.9% respectively).

Most persons with difficulties with print material use at least one assistive aid, device or technology

Assistive aids, devices or technologies can assist persons who have difficulties or disabilities with a variety of tasks and activities. The majority (85.2%) of those with difficulties with print material reported using at least one assistive aid, device or technology because of their condition. Eye glasses or contact lenses (77.3%), magnifiers (17.0%), and large print reading materials (16.1%) were the most commonly used assistive aids, devices or technologies.

Men were more likely than women to use at least one assistive aid, device or technology (Table 2). Use of assistive aids, devices or technologies increased with age. About three-guarters (74.1%) of those aged 15 to 34 years use at

^{5.} In this article when two estimates are said to be different this indicates that the difference was statistically significant at a 95% confidence level (p-value less than 5%).

Sociodemographic information comes from data linked to the SAPM from the 2021 Census and, therefore, reflects the reference day for the Census, May 11th, 2021.

^{7.} Given that the non-binary population is small, data aggregation to a two-category gender variable is sometimes necessary to protect the confidentiality of responses. In these cases, individuals in the category "non-binary persons" are distributed into the other two gender categories and are denoted by the "+" symbol.

least one assistive aid, device or technology, while 85.1% of those aged 35 to 64 years and 89.9% of those aged 65 years and older reported usage. Additionally, differences emerged when the use of assistive aids, devices or technologies was examined by education and income. Those with a high school graduation or less (82.3%) were less likely to use at least one assistive aid, device or technology, compared with those with some postsecondary education (87.6%) and those with a bachelor's degree or higher (89.4%). Assistive aid, device or technology use was higher among those with an income of \$60,000 or more (88.8%) when compared to those whose income was under \$20,000 (81.2%).8

Table 2
Use of assistive aids, devices or technologies, persons with difficulties with print material, by select characteristics, aged 15 years and older, Canada, 2023

	Uses at leas	t one assistive	aid, device or tech	inology	
			95% confidence interval		
			lower	upper	
	Number	Percent	percent		
Gender					
Men+ (reference category)	2,477,420	87.7	85.6	89.8	
Women+	1,850,230	82.1*	79.5	84.6	
Age group					
15 to 34 years (reference category)	620,390	74.1	69.8	78.3	
35 to 64 years	1,916,140	85.1*	82.6	87.6	
65 years and older	1,791,120	89.9*	87.6	92.3	
Racialized population category					
Racialized	708,350	84.7	80.8	88.6	
Non-racialized (reference category)	3,478,480	85.7	83.9	87.6	
Indigenous identity					
Indigenous identity	146,090	76.1	65.3	86.9	
Non-Indigenous identity (reference category)	4,181,560	85.6	83.9	87.2	
Place of residence					
Urban area (reference category)	3,602,150	85.2	83.4	86.9	
Rural area	725,500	85.4	81.2	89.6	
Educational attainment	•				
High school graduation or less (reference category)	1,949,320	82.3	79.7	85.0	
Some postsecondary education or certificate or diploma	1,425,940	87.6*	85.0	90.2	
Bachelor's degree or higher	894,960	89.4*	86.4	92.4	
Labour force status					
Employed (reference category)	1,785,540	83.5	80.9	86.1	
Unemployed	258,710	83.8	77.0	90.5	
Not in the labour force	2,225,960	87.3*	85.1	89.6	
First official language					
English (reference category)	3,387,970	85.5	83.7	87.4	
French	767,820	83.8	79.6	88.0	
Other	171,860 ^E	84.7 ^E	75.5	93.8	
Total after-tax income	•				
Under \$20,000 (reference category)	1,016,480	81.2	77.9	84.6	
\$20,000 to \$39,999	1,602,940	87.1*	84.4	89.7	
\$40,000 to \$59,999	916,960	83.6	79.9	87.3	
\$60,000 and over	791,280	88.8*	85.2	92.4	

Euse with caution

Notes: Assistive aids, devices or technologies included eye glasses or contact lenses, screen reader, read aloud function in an app or on a device, Braille refreshable display device, braille notetaker, braille reading materials, manual brailler, magnifiers, screen magnifying software, large print reading materials, dark lined paper or dark ink pens, the option to adjust colour, fonts or spacing, voice control, switches and eye tracking technologies, closed-circuit devices, low-tech vision aides, device for playing audio books, device for reading e-books, computer, laptop or tablet with specialized software or apps or other adaptations, or cell phone, smartphone or smartwatch with specialized features or apps. Data on Indigenous respondents are not included in the racialized population category.

Source: Statistics Canada. Survey on Accessible Print Materials. 2023.

Just over one in ten (11.2%) Canadians who had difficulties with print material reported that they needed an assistive aid, device or technology that they did not have access to. The top three cited reasons for having these unmet needs were cost (61.7%), being unsure how or where to get them (40.9%), and not knowing how to use them (28.6%).

 $^{^{\}star}$ significantly different from reference category (p < 0.05)

^{8.} After-tax income refers to total income less income taxes during the reference period. Income taxes refers to the sum of federal income taxes, provincial and territorial income taxes. The reference period for this information was the calendar year 2020.

The most used alternate formats are large print versions

Among those who had difficulties with print material, just over half (51.5%) indicated they require at least one alternate format. Persons who require alternate formats include those who reported that they use alternate formats and those who would use alternate formats if they were available to them. Men (55.6%) were more likely than women (46.2%) to report requiring alternate formats (Table 3). The proportion requiring alternate formats was higher among racialized populations⁹ (63.9%) than the non-racialized and non-Indigenous population (48.8%). Those with a bachelor's degree or higher were more likely to require alternate formats (55.7%) than those with a high school graduation or less (49.0%). Additionally, those whose first official language is English were more likely to need alternate formats (52.2%) than those whose first official language is French (45.3%).

Table 3
Require alternate formats, persons with difficulties with print material, by select characteristics, aged 15 years and older, Canada, 2023

Number 1,484,260 977,410 436,800	Percent 55.6 46.2*	% confidence lower percent 52.5 42.7	upper
1,484,260 977,410	55.6	percent 52.5	
1,484,260 977,410	55.6	52.5	
977,410			507
977,410			50 7
,	46.2*	12.7	30.7
436,800		42.7	49.8
436,800			
	54.6	49.8	59.5
1,098,470	51.4	47.9	54.9
926,390	50.2	46.0	54.3
487,870	63.9*	58.5	69.4
1,872,020	48.8	46.0	51.5
104,300	56.0 ^E	43.7	68.3
2,357,370	51.3	48.8	53.7
2,077,780	52.2	49.6	54.9
383,890	47.8	42.0	53.6
1,085,110	49.0	45.4	52.7
800,720	52.1	47.9	56.2
530,800	55.7*	51.0	60.3
1,025,470	50.4	46.9	54.0
165,230	55.1	45.8	64.5
1,225,930	51.7	48.2	55.2
1,950,210	52.3	49.5	55.0
389,370	45.3*	39.5	51.1
122,090	64.7 ^E	51.6	77.8
-			
624,650	53.6	49.2	58.0
875,240	50.7	46.5	54.8
532,150	51.7	46.5	56.9
429,630	49.9	44.4	55.4
_	1,099,470 926,390 487,870 1,872,020 104,300 2,357,370 2,077,780 383,890 1,085,110 800,720 530,800 1,025,470 165,230 1,225,930 1,950,210 389,370 122,090 624,650 875,240 532,150	1,098,470 51.4 926,390 50.2 487,870 63.9* 1,872,020 48.8 104,300 56.0 [€] 2,357,370 51.3 2,077,780 52.2 383,890 47.8 1,085,110 49.0 800,720 52.1 530,800 55.7* 1,025,470 50.4 165,230 55.1 1,225,930 51.7 1,950,210 52.3 389,370 45.3* 122,090 64.7 [€] 624,650 53.6 875,240 50.7 532,150 51.7	1,098,470 51.4 47.9 926,390 50.2 46.0 487,870 63.9* 58.5 1,872,020 48.8 46.0 104,300 56.0 [€] 43.7 2,357,370 51.3 48.8 2,077,780 52.2 49.6 383,890 47.8 42.0 1,085,110 49.0 45.4 800,720 52.1 47.9 530,800 55.7* 51.0 1,025,470 50.4 46.9 165,230 55.1 45.8 1,225,930 51.7 48.2 1,950,210 52.3 49.5 389,370 45.3* 39.5 122,090 64.7 [€] 51.6 624,650 53.6 49.2 875,240 50.7 46.5 532,150 51.7 46.5

^Euse with caution

Notes: Includes those who reported using alternate formats and those who reported they would use alternate formats if it was available to them. Data on Indigenous respondents are not included in the racialized population category.

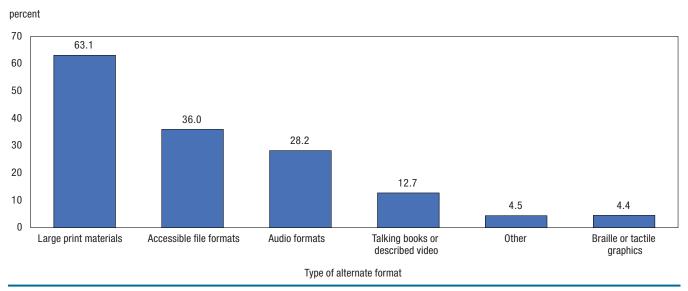
Source: Statistics Canada, Survey on Accessible Print Materials, 2023.

 $^{^{\}star}$ significantly different from reference category (p < 0.05)

^{9.} The term 'racialized population' is used to label the 'visible minority' concept from the Census. 'Visible minority' refers to whether or not a person belongs to one of the visible minority groups defined by the *Employment Equity Act*. The *Employment Equity* Act defines visible minorities as "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour." 'Visible minority 'is derived from the 'population group' variable available on the Census 2021. 'Population group' refers to the population group or groups to which the person belongs, for example, White, South Asian, Chinese, Black, Filipino, Latin American, Arab, Southeast Asian, West Asian, Korean or Japanese.

Overall, 35.8% of those with difficulties with print materials reported using reading materials in at least one alternate format. Of these individuals, 19.3% reported using one type of alternate format, while 16.5% indicated they used multiple alternate formats. The most commonly used types of alternate formats were large print materials¹⁰ (63.1%), accessible file formats¹¹ (36.0%), or audio formats¹² (28.2%; Chart 1).

Chart 1 Type of alternate format used, persons with difficulties with print material, aged 15 years and older, Canada, 2023



Source: Statistics Canada, Survey on Accessible Print Materials, 2023.

Among users of alternate formats, 26.7% used digital versions¹³ while 19.1% used physical copy versions.¹⁴ There were no differences by gender in terms of likelihood of using digital versions, however, men were more likely to use physical copies of alternate formats (22.3%) than women (15.0%). There were differences shown by age as well. Younger users of alternate formats (aged 15 to 34 years) were more likely to use digital versions (36.5%), compared to older users (aged 65 years and older; 21.3%). In contrast, older Canadians (aged 65 years and older) who use alternate formats were more likely to use physical copies (23.1%) than their younger counterparts (aged 15 to 34 years; 14.9%).

Users of alternate formats most commonly reported receiving their formats from a book store (57.3%), either online or in person, and from the public library or a university or college library (55.4%; Chart 2). When asked how often they received alternate formats when needed, 21.7% of users of alternate formats indicated "always", while another 20.3% indicated "often". The proportion receiving their required alternate formats either "always" or "often" was similar by gender and by age group.

^{10.} Includes both digital and hard copy versions

^{11.} Includes accessible PDF and EPub.

^{12.} Includes digital and hard copy formats

^{13.} Includes electronic braille, large print digital formats, accessible PDFs, EPub, digital audio formats, DAISY books and descriptive video.

^{14.} Includes embossed braille, tactile graphics, large print hard copies, hard copy audio formats.

percent 70 57.3 60 55.4 50 40 30 17.2 20 14.6 10 6.0 n Book store Public, university or Own production or National, local or community Other college library conversion organization Service provider of alternate format

Chart 2
Service providers used, persons with difficulties with print material, aged 15 years and older, Canada, 2023

Source: Statistics Canada, Survey on Accessible Print Materials, 2023.

Younger persons with difficulties with print material are more likely to have unmet needs for alternate formats

One-fifth (20.1%) of those with difficulties with print materials, who require alternate formats, reported that in the past two years there was a time they needed an alternate format but were unable to access it. The proportion reporting unmet needs for alternate formats was 19.5% among those with difficulties with seeing words in print. While unmet needs were reported by around 27% of both those with difficulties holding or turning pages of print material and those with difficulties reading or understanding words in print.

There were no significant differences in the proportion with unmet needs when examined by gender (Table 4). Younger Canadians (aged 15 to 34 years) with difficulties with print material were more likely than their older counterparts to report unmet needs for alternate formats. Unmet needs varied by education and income. Those with a bachelor's degree or higher were more likely to have unmet needs related to alternate formats (24.1%) than those with a high school graduation or less (15.6%). Persons with difficulties with print material who had income under \$20,000 were more likely to have unmet needs (23.3%) compared to those with income of \$60,000 or more (13.9%). In addition, unmet needs for alternate formats were higher among those whose first official language is English (22.0%) than French (14.8%).

Table 4
Unmet needs for alternate formats, persons with difficulties with print material, by select characteristics, aged 15 years and older, Canada, 2023

	Unmet need	Unmet needs for alternate formats in the past two years			
			95% confidence interval		
			lower	upper	
	Number	Percent	percent		
Gender					
Men+ (reference category)	245,850	18.3	15.0	21.6	
Women+	201,770	22.9	18.2	27.5	
Age group					
15 to 34 years (reference category)	103,590	27.3	20.8	33.7	
35 to 64 years	217,790	21.7	17.4	25.9	
65 years and older	126,240	15.0*	10.7	19.3	
Place of residence					
Urban area (reference category)	370,980	19.7	16.7	22.7	
Rural area	76,640	22.3	15.1	29.5	
Educational attainment					
High school graduation or less (reference category)	147,610	15.6	11.6	19.5	
Some postsecondary education or certificate or diploma	156,810	21.3	16.4	26.3	
Bachelor's degree or higher	121,980	24.1*	18.5	29.8	
First official language					
English (reference category)	387,280	22.0	18.8	25.2	
French	53,180	14.8*	8.5	21.1	
Other	F	F	F	F	
Total after-tax income					
Under \$20,000 (reference category)	129,160	23.3	17.8	28.8	
\$20,000 to \$39,999	140,220	17.7	12.9	22.4	
\$40,000 to \$59,999	122,500	25.7	19.4	32.0	
\$60,000 and over	55,750	13.9*	8.4	19.4	

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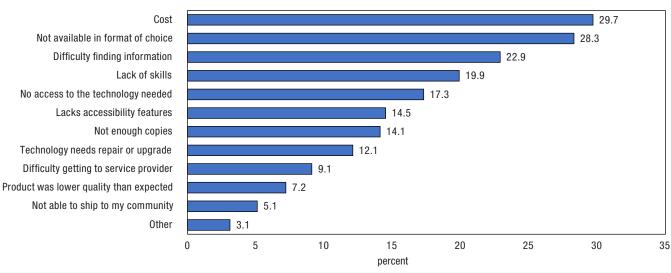
Source: Statistics Canada, Survey on Accessible Print Materials, 2023.

Cost is often cited as a barrier to accessing alternate format material

Among those who require alternate formats, 69.5% indicated they encountered at least one barrier when accessing them. Cost (29.7%), unavailability of the alternate format of choice (28.3%), and difficulty finding information (22.9%; Chart 3) were the most commonly cited as barriers to accessing alternate formats. Persons with difficulties with print materials who required multiple types of alternate formats were more likely to report a barrier (74.0%) than those who required one type of format (61.5%).

^{*} significantly different from reference category (p < 0.05)

Chart 3
Type of barrier encountered when accessing alternate formats, persons with difficulties with print material, aged
15 years and older, Canada, 2023



Source: Statistics Canada, Survey on Accessible Print Materials, 2023.

Technology is frequently used to access alternate format material

Around two-thirds (61.2%) of those who use alternate formats reported that they used the Internet to do so in the past two years. In terms of devices used to access alternate formats, a smartphone (67.5%) or a laptop or netbook (60.6%) were the most commonly used devices. Most users of alternate formats reported using technology to access their alternate formats either daily (41.2%) or weekly (31.7%).

When asked how they felt about their skills in terms of using the required technology for reading their alternate format material, almost seven in ten (68.3%) alternate format users indicated their skills were "very adequate" or "adequate". In terms of training, close to half (47.4%) of users of alternate formats reported they would take training or participate in learning activities to improve their skills related to the use of computers, devices, softwares or applications.

Conclusion

This article provides some key insights from the 2023 SAPM regarding the experiences of those who had difficulties with print material and some information on the access to the materials these individuals require in alternate formats. While improving access to information in accessible formats has been highlighted as an important goal in Canada, the research in this area is somewhat limited, making this an important data gap to be filled.

The present findings indicate that over half of the population who had difficulties with print material need alternate formats, while one-fifth of these individuals have not been able to access all the alternate format material they need. Cost was reported as both the top reason for unmet needs for assistive aids, devices or technologies and for alternate formats and it was the number one barrier encountered when accessing alternate format materials. Among users of alternate formats, digital versions were often selected, particularly among younger Canadians.

A number of key sociodemographic differences emerged as well. Men were more likely than women to both use an assistive aid, device or technology and require alternate format material. There were some variations by education and income level. Those with higher education and income were more likely to use assistive aids, devices or technologies than their counterparts with lower education and income levels. Higher education and lower income levels were associated with higher unmet needs. Unmet needs were also higher among younger persons with difficulties with print material, compared to older persons with difficulties with print material.

Use of technology to access alternate formats was high among persons with difficulties with print material. While a high proportion of Canadians that use alternate formats feel they have adequate skills to use the technology needed, many would still opt to take training to improve their skills if it was offered.

Due to sample size limitations, disaggregation by certain characteristics or for certain concepts were not possible. Further work may need to be done to dig into these areas get a better understanding of the experiences of different groups within the population with difficulties with print material. This type of information could further help to create targeted services or programs for persons with difficulties with print material.

Data source, methods and definitions

This report is based on data from the Survey on Accessible Print Material (SAPM). Data for the 2023 SAPM were collected from March 15, 2023 to April 15, 2023. The population covered by the SAPM is composed of persons aged 15 and over as of March 15, 2023, who indicated on the 2021 long-form census that their daily activities were limited due to one or more difficulties or long-term conditions. In the SAPM, three screening questions were used to classify whether or not the person selected had a difficulty related to print materials.

Respondents' answers were linked to their 2021 Census data in order to reduce response burden and increase the analytical opportunities. This linked data represents information captured in May 2021. It is important for users to keep in mind the different reference periods involved for each data source.