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3 How much shared decision making do Canadians experience when facing healthcare decisions? A  
4 web-based population survey.

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40 Competing interests

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## Abstract

**Background:** Despite health policy that promotes shared decision making (SDM), it is not yet the norm in clinical practice. We aimed to assess how much Canadians experienced SDM in 2017-2018.

**Methods:** We conducted a pan-Canadian cross-sectional online survey in January 2018 with a representative panel of 1,591 residents. We assessed their involvement in health-related decisions made with a health professional over the past year and asked about: 1) discussion of choice, 2) presentation of pros and cons of options, 3) exploration of opinions and preferences, 4) preferred option, and 5) match between preferred and actual level of participation in decision-making. We computed an average SDM score (1-5). We explored variations across socio-demographic factors, jurisdictions, geographical area and care setting (homecare or not) using multivariate weighted regressions.

**Results:** We analyzed 939 responses. Average SDM score (mean $\pm$ -SD) was 2.25 $\pm$ -1.16; 42.8% of respondents reported their health professional always or often discussed choices, 45.4% reported pro/cons were presented, 38.7% reported they were asked for their opinion, 40.2% reported they were asked about preferred option, and 54.2% reported a match between preferred and actual level of participation. Increasing age, rural setting, living in Quebec province and not being Caucasian significantly decreased SDM experienced. Elderly respondents receiving home care reported the least SDM (mean score  $\pm$ - SD 1.654  $\pm$ -0.483).

**Interpretation:** Canadians experienced a low degree of SDM in 2017-2018, with variations across socio-demographic factors, jurisdictions, care settings and geographical areas. Further efforts to foster implementation of SDM are needed, and should take variations into account.

## Introduction

Canadians need support in health-related decision-making (1). More than half of Canadians experience decisional conflict after having make a complex health decision (1). Many of the decisions patients face present multiple options, there is incomplete or conflicting evidence about possible outcomes, and expectations are often unrealistic (1,2). Shared decision making (SDM) is a process whereby health professionals and patients work jointly to make healthcare choices, considering best clinical evidence as well as patients values and preferences (3). SDM constitutes a key component of patient-centred care (4), and results in better healthcare choices with demonstrated benefits and less practice variation (5). Although multiple surveys and studies have reported on SDM levels in diverse healthcare settings (6,7), we know little from a population-based perspective in Canada. Therefore, we aimed to assess how much SDM was experienced by Canadians in 2017-2018 and explore variations across socio-demographic factors, jurisdictions and care settings.

## Methods

### *Study design*

We conducted a pan-Canadian cross-sectional online survey from the 22<sup>nd</sup> to the 25<sup>th</sup> of January 2018 using a Web panel. We used the Checklist for Reporting Results of Internet E-Survey (CHERRIES) to guide reporting of results (8). This closed online survey was conducted in accordance with the Canadian Personal Information Protection and Electronic Documents Act and the Marketing Research and Intelligence Association Respondents' rights bill. Respondents gave their consent to participate to the study by answering the questions. All personal information was stored on a secure server protected by restricted access and encryption. The Research Ethics Board of the CIUSSS de la Capitale Nationale reviewed the project and stated that no ethics committee approval was needed since the project was conducted in accordance with survey ethics with no nominal data collection.

### *Participants and recruitment*

The population studied was Canadian citizens aged 18 and above involved in a Web-panel of 400,000 Canadian citizens (9). Random samples from this panel are solicited weekly to voluntarily participate in surveys. For the present survey, a stratified simple random sampling was conducted to invite 10,000 participants from the panel. Based on the 2016 census data, a

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3 stratification of Canadian provinces, age and sex was applied to ensure a representative sample of  
4 the population. Participants who declared they had received healthcare in the past 12 months were  
5 eligible for this study.  
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### 8 *Data collection* 9

10 A link to a 15-minute web-based questionnaire was sent by e-mail to the participants. Response  
11 was based on voluntary, no incentives were proposed. Respondents logged to the questionnaire  
12 using their panel membership account, allowing only one questionnaire validation per member to  
13 prevent duplicate entries from the same user. The questionnaire included a section on  
14 sociodemographic characteristics and a section on SDM. SDM outcomes were measured using  
15 five questions focusing on participants' healthcare experiences over the past 12 months.  
16 Regarding a decision on a care/treatment choice, participants were asked if their health  
17 professional (doctors, nurses, pharmacists, physiotherapists, or nutritionists) 1) mentioned they  
18 had a choice, 2) presented advantages and disadvantages of the available options, 3) asked about  
19 their opinion and preferences, 4) asked which option they preferred and 5) if their actual level of  
20 participation in decision-making matches their preferred level of participation. Responses were on  
21 a 5-point Likert scale from never (1) to always (5), or I don't know/I prefer not to answer.  
22 Sociodemographic characteristics included 12 questions on age, sex, civil status, care setting  
23 (member of household receiving home care or not), geographical area (urban/suburban/rural),  
24 ethnicity, level of education, occupation, total family income, province of residence and first  
25 language. The questionnaire was inspired by previous surveys (10,11) and available both in  
26 English and French.  
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29 The questionnaire had been pilot-tested for navigability and comprehensibility on a random  
30 sample of 80 panel participants before data collection. Questions appeared in the same order for  
31 all participants. Each question was presented on a separated Web-page. Response to all questions  
32 was required to validate the questionnaire. Respondents were able to review and change their  
33 answers by going backward before having validated the last question.  
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### 38 *Sample size* 39

40 A sample size of 1,591 participants enables us to ensure a 2.5% standard error for estimates with  
41 a 95% confidence level.  
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### 46 *Statistical methods* 47 48 49 50 51 52

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3 Respondents who declared they had received healthcare in the past 12 months were included in  
4 the analysis. To ensure respondents were representative of Canadian residents aged 18 and older,  
5 data were weighted to Canadian census targets for age, sex, region and language based on  
6 distributions reported by the 2016 Statistics Canada census.  
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10 All descriptive statistics and statistical tests were performed with the weighting variable through  
11 complex samples analysis using R 3.3.0 (“Survey” package, version 3.33-2).  
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14 The first step of the analysis consisted in exploring the dimensionality of the SDM questionnaire.  
15 Factorial analysis included the five SDM items to assess the validity of aggregating the five  
16 questions into one unique score. Based on the eigenvalues of the correlation matrix, this analysis  
17 detected only one factor in the data. So we computed a mean SDM score from the five items,  
18 thereafter referred to as the “average SDM score”. The average SDM score ranged from 1 (never)  
19 to 5 (always), with higher values reflecting a higher degree of SDM experienced.  
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24 In the following analyses, six models were applied with each of the five SDM outcomes and the  
25 average SDM score as dependant variables scoring from 1 to 5. We conducted univariate  
26 ANOVA analyses with sociodemographic characteristics as independent variables: age, sex  
27 (male/female), civil status (married or common-law / single / divorced or separated / widower),  
28 member of household receiving home care (yes/no), geographical area (urban/suburban/rural),  
29 ethnicity (Caucasian/Non-caucasian), level of education, occupation (full time student/not worker  
30 / worker), total family income (by income bands of \$20,000), province  
31 (Atlantic/Quebec/Ontario/Manitoba-Saskatchewan/Alberta/British-Columbia), first language  
32 (French/English/other). We then conducted a multiple regression including as independent  
33 variables those whose p-value was less than 0.2 in the univariate analysis for at least one SDM  
34 item and/or the average SDM score. We applied backward model selection using the average  
35 Wald statistic p-value with a threshold of 0.05. To further explore the situation for elderly  
36 Canadians, analyses were reproduced within the subgroup of participants for which a member of  
37 the household (including him/herself) was receiving home care at the time of the survey.  
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## Results

### *Participants*

Figure 1 shows the flow of participants. Considering all potentially eligible participants who clicked on the link to visit the survey as unique survey visitors, the view rate was 17.3% (1,725/10,000) and the participation rate was 92.2% (1,591/1,725). Of the 1,591 participants surveyed, 1,010 received healthcare services during the past 12 months, corresponding to 939 after weighting. 53.7% were women, 41.2% were aged 55 and older, 33% lived in Ontario and 30% in Quebec (see Table 1 for sociodemographic characteristics).

### *Reported degree of SDM*

The mean $\pm$ SD of the average SDM score, on a scale of 1 to 5, was 2.25 $\pm$ 1.16 (Table 2); 42.8% of respondents declared their health professional *often* or *always* discussed the choice with them (outcome #1), 45.4% reported that advantages and disadvantages of the available options were presented (outcome #2), 38.7% reported they were asked for their opinions and preferences (outcome #3), 40.2% reported they were asked about their preferred option (outcome #4), and 54.2% reported that their actual level of participation in decision-making matched their preferred level of participation (outcome #5).

### *Factors associated with degree of SDM*

In univariate analysis, age, having a member of the household receiving home care, and geographical area (urban/suburban/rural) were significantly associated with the six SDM outcomes assessed (see Appendix 1). Province, first language and civic status were associated with two of the six SDM outcomes. No significant differences were observed for other variables.

In multivariate analyses, variables remaining significantly and independently associated with at least one of the six SDM outcomes were age, having a member of the household receiving home care, geographical area, province and ethnicity (Table 3). Age, home care and geographical area were the most consistently significant variables across the six models. Increase in age remained consistently significantly associated with a decrease in the six SDM outcomes, with patients aged 65 or more experiencing the less SDM (from beta -0.9 to beta -1.14).

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3 *SDM among patients receiving home care*  
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5 We separately analyzed a subgroup of participants (N=83) who were receiving home care or for  
6 whom a member of the household was receiving home care at the time of the survey to better  
7 understand SDM in this context. We conducted multiple regression analysis for the six SDM  
8 outcomes, including as independent variables age, geographical area, province and ethnicity.  
9 Within this group increased age was associated with a significant decrease in five out of the six  
10 SDM outcomes, as was the case with the main sample. In fact, elderly people (aged 65 years and  
11 above) in home care presented the lowest average SDM score in our population sample (mean +/-  
12 SD = 1.654 +/-0.483).  
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## Interpretation

We assessed the degree of SDM experienced by Canadians in 2017-2018 and explored variations across socio-demographic factors, care setting, jurisdictions and geographical area. We observed that Canadians experienced a low degree of SDM over the past year, with variations across age, care setting, geographical area, province and ethnicity.

Few population-based surveys reporting SDM perceived by patients are available. A US-survey reported an increase in perceived SDM from 4.4 to 5.0 (on a 7-point scale) between 2002 and 2014 (12). Most published measures of SDM are not population-based but came from observation of interactions between patients and health professional during clinical encounters. A systematic review of measures using the Observing Patient Involvement in Decision Making instrument (OPTION) reported that, whatever the clinical context, the level of involvement remained low (6). However, measuring SDM is a complex issue. Numerous tools have been developed (13–15), but they adopt different perspectives and measure a wide variety of constructs. There remains methodological challenges to overcome in SDM measurement (13–16).

Our results also raise important concerns about disparities in patient involvement in decisions depending on age, jurisdiction and geographical area. The inverse relationship observed between age and experience of SDM confirms that elderly patients, and even more elderly patients receiving home care, are less likely to be engaged in healthcare decisions (3,17). This is of importance since decisions for elderly patients are numerous and can be complex. SDM approaches for these patients should be interprofessional, tailored to their characteristics and preferences, and include informal caregivers (18). Patients living in rural areas and non-Caucasian patients were also less involved in decisions. These results call for an increased consideration of vulnerable populations who would most benefit from engaging in SDM (3,12,17,19). SDM is an opportunity to decrease inequities (20), but we have to ensure that its implementation does not conversely lead to increase in disparities as suggested by our results. Living in the province of Quebec was also associated with less experience of SDM than other provinces, which could partly be explained by disparities in initiatives that support SDM implementation by the different health systems (21).

Our study has a few limitations. First, our results were based on participants' recollections about healthcare they had received over the past 12 months, thus a recall bias could apply. Second, our assessment of SDM using a population-based survey required using a limited number of items to address a wide range of medical decisions and individual situations. We countered this issue by



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3 targeting only essential components of SDM in our questions (22), and focused solely on the  
4 perspective of patients for one type of decision. Finally, we had no details on the decision, such as  
5 the type of health professional or the health condition. These limitations notwithstanding, our  
6 survey offers some essential elements of an up-to-date portrait of SDM implementation in Canada  
7 in 2018.  
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11 SDM is an ethical imperative and there is a strong evidence base supporting it. Yet our results  
12 suggest that further efforts are needed to implement SDM in daily clinical practice in Canada.  
13 Most reasons for not implementing SDM in daily clinical practice are not evidence-based and  
14 often based on misconceptions (23). The momentum should not stop here, and efforts to increase  
15 SDM among the most vulnerable members of the population should be a priority.  
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Table 1: Descriptive socio-demographic characteristics (Total weighted N = 939)

Variable	weighted n (%)
Age (years)	
From 18 to 24	52 (5.5)
From 25 to 34	190 (20.2)
From 35 to 44	125 (13.3)
From 45 to 54	186 (19.8)
From 55 to 64	167 (17.7)
65 or more	221 (23.5)
I prefer not to answer	0 (0)
Gender	
Male	435 (46.3)
Female	505 (53.7)
Civil status	
Single	199 (21.2)
Married - Common-law partner	604 (64.3)
Separated - Divorced	83 (8.8)
Widower	39 (4.1)
I prefer not to answer	15 (1.6)
Member of household receiving home care	
Yes	83 (8.8)
No	845 (90)
I prefer not to answer	11 (1.2)
Geographical area	
Urban	442 (47.1)
Suburb	328 (34.9)
Rural	161 (17.1)
I don't know/prefer not to answer	8 (0.9)
Ethnicity	
Caucasian	737 (78.3)
Non-Caucasian	202 (21.5)
Level of education	
Elementary	18 (1.9)
High school	258 (27.4)
College	289 (30.7)
University certificate	63 (6.7)
University 1st – 3 <sup>rd</sup> cycle	305 (32.5)
I prefer not to answer	7 (0.7)
Occupation, weighted n (%)	
Worker	775 (82.5)

	Non worker	122 (13)
	Full time studies	42 (4.5)
	<b>Total family income (\$Can), weighted n (%)</b>	
	19,999 or less	79 (8.4)
	20,000 to 39,999	123 (13.1)
	40,000 to 59,999	157 (16.7)
	60 000 to 79,999	131 (14)
	80,000 to 99,999	122 (13)
	100,000 to 124,999	90 (9.6)
	125,000 to 149,999	50 (5.3)
	150,000 or more	77 (8.2)
	I prefer not to answer	110 (11.7)
	<b>Province, weighted n (%)</b>	
	ATLANTIC	60 (6.4)
	QC	285 (30.4)
	ON	311 (33.1)
	MB/SK	54 (5.8)
	AB	97 (10.3)
	BC	132 (14.0)
	<b>First language, weighted n (%)</b>	
	French	254 (27.1)
	English	475 (50.6)
	Other	206 (21.9)
	I prefer not to answer	4 (0.4)

<sup>a</sup> median score = 2.4 and IQR = 1.4 – 3.0

*QC Quebec, ON Ontario, MB Manitoba, SK Saskatchewan, AB Alberta, BC British Columbia*

Table 2: Descriptive statistics of SDM outcomes (Total weighted N = 939)

Variable	Weighted n (%)
Average SDM score, mean (SD) <sup>a</sup>	2.25 (1.16)
#1 Choice discussed?	
Always	180 (19.1)
Often	223 (23.7)
Sometimes	273 (29)
Rarely	97 (10.3)
Never	124 (13.2)
I don't know/prefer not to answer	43 (4.6)
#2 Advantages/disadvantages presented?	
Always	192 (20.4)
Often	235 (25.0)
Sometimes	226 (24.1)
Rarely	121 (12.9)
Never	132 (14.1)
I don't know/prefer not to answer	33 (3.5)
#3 Asked about opinion or preferences?	
Always	157 (16.7)
Often	207 (22.0)
Sometimes	228 (24.3)
Rarely	164 (17.5)
Never	143 (15.2)
I don't know/prefer not to answer	40 (4.3)
#4 Asked about preferred option?	
Always	161 (17.1)
Often	217 (23.1)
Sometimes	233 (24.8)
Rarely	137 (14.6)
Never	151 (16.1)
I don't know/prefer not to answer	40 (4.3)
#5 Match between preferred and actual level of participation?	
Always	238 (25.4)
Often	270 (28.8)
Sometimes	196 (20.9)
Rarely	122 (13)
Never	82 (8.7)
I don't know/prefer not to answer	30 (3.2)

*SDM Shared decision making*

<sup>a</sup> Average SDM score is calculated as the mean of the scores of the 5 SDM items, scores from 1 (never) to 5 (always).

Table 3: Weighted multiple regression for the average SDM score and the five SDM outcomes <sup>a</sup>

	<b>Average SDM score</b>	<b>#1 Choice discussed?</b>	<b>#2 Advantages/disadvantages presented?</b>	<b>#3 Asked about opinion or preferences?</b>	<b>#4 Asked about preferred option?</b>	<b>#5 match between preferred and actual level of participation?</b>
	<b>beta (95%CI)</b>	<b>beta (95%CI)</b>	<b>beta (95%CI)</b>	<b>beta (95%CI)</b>	<b>beta (95%CI)</b>	<b>beta (95%CI)</b>
<b>Age</b>						
From 18 to 24	ref	ref	ref	ref	ref	ref
From 25 to 34	-0.47 (-0.83, -0.1) *	-0.41 (-0.86, 0.04)	-0.61 (-1.05, -0.17) **	-0.42 (-0.92, 0.07)	-0.43 (-0.97, 0.12)	-0.46 (-0.9, -0.01) *
From 35 to 44	-0.69 (-1.1, -0.29) ***	-0.56 (-1.04, -0.09) *	-0.86 (-1.32, -0.4) ***	-0.6 (-1.12, -0.08) *	-0.69 (-1.25, -0.12) *	-0.76 (-1.23, -0.3) **
From 45 to 54	-0.63 (-0.99, -0.27) ***	-0.54 (-0.97, -0.11) *	-0.88 (-1.3, -0.45) ***	-0.39 (-0.88, 0.1)	-0.64 (-1.19, -0.1) *	-0.69 (-1.11, -0.27) **
From 55 to 64	-0.67 (-1.02, -0.32) ***	-0.55 (-0.97, -0.13) *	-0.87 (-1.29, -0.46) ***	-0.5 (-0.99, -0.02) *	-0.66 (-1.2, -0.13) *	-0.75 (-1.17, -0.33) ***
65 or more	-0.9 (-1.26, -0.54) ***	-0.8 (-1.23, -0.37) ***	-1.14 (-1.57, -0.72) ***	-0.84 (-1.33, -0.34) ***	-0.9 (-1.44, -0.35) **	-0.81 (-1.23, -0.38) ***
<b>Member of household receiving home care</b>						
No	ref	ref	ref	ref	ref	ref
Yes	0.45 (0.15, 0.75) **	0.44 (0.1, 0.78) *	0.49 (0.13, 0.85) **	0.5 (0.16, 0.84) **	0.45 (0.11, 0.78) **	0.37 (0.03, 0.7) *
<b>Geographical area</b>						
Urban	ref	ref	ref	ref	ref	ref
Suburban	-0.14 (-0.33, 0.05)	-0.16 (-0.38, 0.05)	-0.12 (-0.34, 0.1)	-0.13 (-0.34, 0.08)	-0.14 (-0.36, 0.08)	-0.13 (-0.34, 0.07)
Rural	-0.37 (-0.61, -0.13) **	-0.48 (-0.76, -0.2) ***	-0.36 (-0.63, -0.1) **	-0.41 (-0.67, -0.15) **	-0.35 (-0.61, -0.08) *	-0.26 (-0.54, 0.02)
<b>Province</b>						
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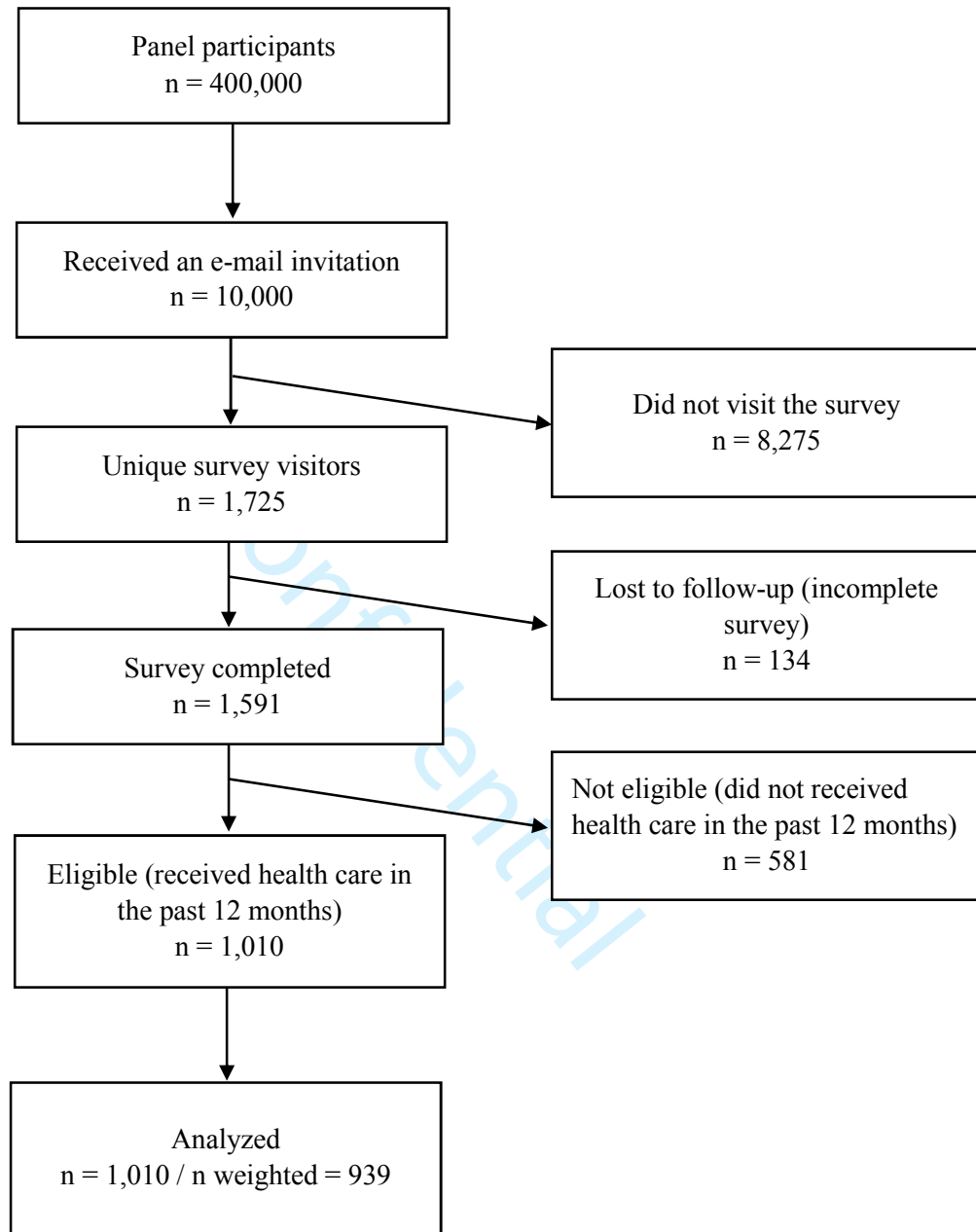
							-0.55 (-0.9, -0.21) **
	QC	-0.29 (-0.6, 0.02)	0.07 (-0.28, 0.42)	-0.19 (-0.55, 0.18)	-0.38 (-0.77, 0.01)	-0.4 (-0.78, -0.01) *	
	ON	-0.2 (-0.5, 0.11)	-0.08 (-0.44, 0.27)	-0.06 (-0.43, 0.31)	-0.34 (-0.72, 0.05)	-0.19 (-0.56, 0.18)	-0.31 (-0.65, 0.03)
	MB/SK	-0.08 (-0.48, 0.32)	0.04 (-0.42, 0.5)	0 (-0.47, 0.48)	-0.19 (-0.71, 0.32)	-0.09 (-0.57, 0.39)	-0.15 (-0.57, 0.28)
	AB	-0.19 (-0.61, 0.24)	-0.1 (-0.6, 0.4)	-0.16 (-0.67, 0.34)	-0.36 (-0.84, 0.12)	-0.01 (-0.48, 0.47)	-0.32 (-0.79, 0.15)
	BC	-0.07 (-0.47, 0.33)	-0.04 (-0.5, 0.41)	0.07 (-0.38, 0.53)	-0.17 (-0.65, 0.3)	0.03 (-0.43, 0.49)	-0.23 (-0.67, 0.21)
<b>Ethnicity</b>							
	All except caucasian	ref	ref	ref	ref	ref	ref
	Caucasian	0.21 (-0.03, 0.45)	0.12 (-0.15, 0.4)	0.24 (-0.03, 0.51)	0.13 (-0.14, 0.41)	0.19 (-0.08, 0.46)	0.37 (0.09, 0.64) **

\*  $P < 0.05$ ; \*\*  $P < 0.01$ ; \*\*\*  $P < 0.001$ , SDM Shared Decision Making, SE Standard Error, QC Quebec, ON Ontario, MB Manitoba, SK Saskatchewan, AB Alberta, BC British Columbia, Ref: reference

Average SDM score is calculated as the mean of the scores of the 5 SDM item, each SDM item is scored from 1 (never) to 5 (always).  
<sup>a</sup> multiple regression was conducted using a backward selection process, with a threshold p-value of 0.05, variables with at least one category presenting a p-value  $< 0.05$  remained in the model at the last step



Figure 1: Flow of participants



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Appendix: Univariate ANOVA results for the outcomes average SDM score and the five SDM outcomes, on the demographic characteristics

	Average SDM score		#1 Choice discussed?		#2 Advantages/ disadvantages presented?		#3 Asked about opinion or preferences?		#4 Asked about preferred option?		#5 match between preferred and actual level of participation?	
	mean (SE)	P	mean (SE)	P	mean (SE)	P	mean (SE)	P	mean (SE)	P	mean (SE)	P
<b>Age (years)</b>		<b>&lt;0.001</b>		<b>0.004</b>		<b>&lt;0.001</b>		<b>0.004</b>		<b>0.02</b>		<b>0.03</b>
From 18 to 24 (ref)	2.87 (0.17)		2.82 (0.18)		3.08 (0.19)		2.65 (0.25)		2.72 (0.27)		3.07 (0.2)	
From 25 to 34	2.44 (0.11) *		2.45 (0.14)		2.51 (0.13) *		2.22 (0.13)		2.33 (0.13)		2.69 (0.12)	
From 35 to 44	2.2 (0.13) **		2.27 (0.15) *		2.23 (0.14) ***		2.04 (0.14) *		2.08 (0.14) *		2.38 (0.15) **	
From 45 to 54	2.28 (0.1) **		2.29 (0.11) *		2.25 (0.12) ***		2.25 (0.11)		2.13 (0.12) *		2.5 (0.11) *	
From 55 to 64	2.2 (0.08) ***		2.22 (0.09) **		2.21 (0.1) ***		2.09 (0.1) *		2.08 (0.1) *		2.42 (0.09) **	
65 or more	2.01 (0.09) ***		1.99 (0.11) ***		1.98 (0.11) ***		1.78 (0.1) **		1.87 (0.1) **		2.41 (0.1) **	
<b>Gender</b>		1		0.4		1		0.5		0.9		0.8
Male (ref)	2.25 (0.06)		2.21 (0.08)		2.27 (0.08)		2.13 (0.07)		2.12 (0.07)		2.53 (0.07)	
Female	2.26 (0.06)		2.31 (0.07)		2.27 (0.07)		2.07 (0.07)		2.13 (0.07)		2.51 (0.07)	
<b>Member of household receiving home care</b>		<b>&lt;0.001</b>		<b>0.005</b>		<b>0.002</b>		<b>0.001</b>		<b>0.001</b>		<b>0.005</b>
No (ref)	2.21 (0.05)		2.22 (0.05)		2.22 (0.05)		2.05 (0.05)		2.08 (0.05)		2.48 (0.05)	
Yes	2.78 (0.16) ***		2.74 (0.18) **		2.85 (0.19) **		2.67 (0.19) **		2.68 (0.17) ***		2.96 (0.16) **	
<b>Geographical area</b>		<b>0.005</b>		<b>0.002</b>		<b>0.01</b>		<b>0.006</b>		<b>0.02</b>		0.2
Urban (ref)	2.38 (0.07)		2.41 (0.08)		2.39 (0.08)		2.23 (0.08)		2.24 (0.08)		2.61 (0.07)	
Suburb	2.23 (0.07)		2.24 (0.08)		2.26 (0.09)		2.08 (0.08)		2.09 (0.09)		2.48 (0.08)	
Rural	1.98 (0.1) **		1.91 (0.12) ***		1.98 (0.11) **		1.79 (0.11) **		1.87 (0.11) **		2.35 (0.12)	
<b>Level of education</b>		0.8		0.4		0.4		0.6		0.8		0.8
Elementary (ref)	2.5 (0.41)		2.12 (0.62)		2.61 (0.38)		2.56 (0.37)		2.49 (0.34)		2.71 (0.42)	
High school	2.15 (0.1)		2.16 (0.11)		2.14 (0.12)		1.95 (0.11)		1.99 (0.12)		2.49 (0.11)	
College	2.29 (0.07)		2.26 (0.08)		2.34 (0.08)		2.12 (0.08)		2.15 (0.08)		2.55 (0.08)	
University certificate	2.37 (0.14)		2.52 (0.15)		2.48 (0.16)		2.04 (0.17)		2.22 (0.2)		2.59 (0.18)	
University 1st cycle	2.24 (0.09)		2.23 (0.1)		2.17 (0.11)		2.16 (0.1)		2.18 (0.1)		2.45 (0.09)	
University 2nd cycle	2.32 (0.16)		2.44 (0.18)		2.42 (0.17)		2.18 (0.18)		2.09 (0.18)		2.46 (0.17)	
University 3rd cycle	2.52 (0.32)		2.71 (0.35)		2.4 (0.37)		2.39 (0.37)		2.22 (0.36)		2.89 (0.29)	
<b>Occupation</b>		0.3		0.1		0.2		0.5		0.5		0.5
full-time student (ref)	2.57 (0.26)		2.77 (0.26)		2.68 (0.28)		2.33 (0.3)		2.45 (0.33)		2.61 (0.33)	
not worker	2.11 (0.15)		2.17 (0.16)		2.06 (0.18)		1.95 (0.15)		2.01 (0.17)		2.34 (0.17)	

worker	2.26 (0.05)		2.25 (0.06)		2.28 (0.05)		2.11 (0.05)		2.13 (0.05)		2.54 (0.05)
<b>Total family income (\$Can)</b>		0.6		0.6		0.4		0.5		0.9	0.7
19,999 or less (ref)	2.3 (0.2)		2.35 (0.21)		2.34 (0.22)		2.03 (0.21)		2.23 (0.22)		2.57 (0.22)
20,000 to 39,999	2.21 (0.13)		2.19 (0.15)		2.23 (0.15)		2.01 (0.15)		2.12 (0.15)		2.5 (0.15)
40,000 to 59,999	2.28 (0.1)		2.28 (0.13)		2.24 (0.13)		2.15 (0.11)		2.16 (0.11)		2.54 (0.12)
60 000 to 79,999	2.21 (0.13)		2.32 (0.14)		2.27 (0.14)		2.02 (0.14)		2.01 (0.14)		2.4 (0.13)
80,000 to 99,999	2.22 (0.12)		2.22 (0.14)		2.31 (0.13)		2.04 (0.14)		2.07 (0.14)		2.47 (0.14)
100,000 to 124,999	2.26 (0.14)		2.28 (0.15)		2.27 (0.15)		2.08 (0.16)		2.11 (0.16)		2.57 (0.14)
125,000 to 149,999	2.12 (0.14)		2.22 (0.16)		2.06 (0.17)		1.96 (0.15)		2.07 (0.15)		2.3 (0.16)
150,000 or more	2.55 (0.14)		2.52 (0.15)		2.62 (0.18)		2.47 (0.17)		2.35 (0.18)		2.77 (0.15)
prefers not to answer	2.13 (0.15)		1.99 (0.17)		2.01 (0.17)		2.12 (0.17)		2.02 (0.16)		2.49 (0.14)
<b>Province</b>		0.4		0.7		0.7		0.4		0.1	<b>0.03</b>
ATLANTIC (ref)	2.44 (0.15)		2.26 (0.15)		2.35 (0.18)		2.38 (0.2)		2.3 (0.18)		2.89 (0.16)
QC	2.17 (0.08)		2.36 (0.08)		2.2 (0.09)		2.03 (0.09)		1.94 (0.09)		2.34 (0.09) **
ON	2.21 (0.08)		2.18 (0.09)		2.25 (0.09)		2.04 (0.08)		2.09 (0.08)		2.51 (0.08) *
MB/SK	2.38 (0.15)		2.34 (0.18)		2.37 (0.18)		2.23 (0.19)		2.24 (0.18)		2.74 (0.15)
AB	2.23 (0.17)		2.16 (0.21)		2.16 (0.19)		2.02 (0.17)		2.29 (0.17)		2.55 (0.18)
BC	2.42 (0.15)		2.29 (0.16)		2.48 (0.17)		2.28 (0.17)		2.39 (0.16)		2.65 (0.17)
<b>First language</b>		0.8		<b>0.04</b>		0.9		1		0.3	<b>0.05</b>
French (ref)	2.25 (0.07)		2.45 (0.08)		2.26 (0.08)		2.11 (0.08)		2.04 (0.09)		2.41 (0.08)
English	2.29 (0.06)		2.21 (0.07) *		2.3 (0.07)		2.1 (0.07)		2.2 (0.07)		2.63 (0.06) *
Other	2.18 (0.13)		2.17 (0.15)		2.22 (0.15)		2.09 (0.13)		2.05 (0.14)		2.39 (0.14)
<b>Civil status</b>		0.1		0.09		0.08		0.5		0.1	0.2
Married or Common-law partner (ref)	2.21 (0.05)		2.21 (0.06)		2.22 (0.06)		2.08 (0.06)		2.07 (0.06)		2.44 (0.06)
Separated or Divorced	2.12 (0.15)		2.1 (0.18)		2.03 (0.17)		1.94 (0.17)		1.95 (0.18)		2.57 (0.15)
Single	2.47 (0.1) *		2.52 (0.11) *		2.52 (0.12) *		2.24 (0.13)		2.39 (0.13) *		2.68 (0.11)
Widower	2.27 (0.24)		2.2 (0.26)		2.26 (0.27)		2.07 (0.27)		2.05 (0.26)		2.74 (0.22)
<b>Ethnicity</b>		1		0.7		0.8		0.7		0.9	0.2
All except Caucasian (ref)	2.25 (0.12)		2.31 (0.13)		2.3 (0.14)		2.14 (0.13)		2.15 (0.13)		2.37 (0.13)
Caucasian	2.25 (0.05)		2.25 (0.06)		2.26 (0.06)		2.09 (0.05)		2.12 (0.06)		2.55 (0.05)

\* P < 0.05; \*\* P < 0.01; \*\*\*P < 0.001 for the significance of the corresponding beta coefficients

SDM Shared Decision Making, SE Standard Error, QC Quebec, ON Ontario, MB Manitoba, SK Saskatchewan, AB Alberta, BC British Columbia, Ref Referenc

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*Average SDM score is calculated as the mean of the scores of the 5 SDM item, each SDM item is scored from 1 (never) to 5 (always).*

Confidential