



Public support for safer supply programs: analysis of a cross-sectional survey of Canadians in two provinces

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Abstract

Objectives Canada's ongoing drug poisoning crisis has contributed to unprecedented rates of morbidity and mortality. Health Canada has funded safer supply pilot programs to help connect people who use drugs to pharmaceutical grade medications that reduce their reliance on a toxic drug supply. However, most provinces, including Alberta and Saskatchewan, have not endorsed these initiatives. We explored public support for safer supply programs in these two Canadian provinces and identified predictors of support for this policy option.

Methods Cross-sectional data were examined from an online panel survey that included measures assessing views on policy responses to substance use and addiction. A total of 1602 adults were recruited during March 2021. We used descriptive statistics to characterize support for safer supply programs in Alberta and Saskatchewan and multinomial logistic regression analysis to examine predictors of public support for safer supply.

Results The majority of respondents (AB: 63.5% and SK: 56.3%) supported safer supply programs that replace illegal street drugs with pharmaceutical alternatives for those unable to stop using. Predicted probabilities show a greater probability of support for safer supply among those with higher education and those leaning left on the political spectrum.

Conclusion A majority of Canadians from Alberta and Saskatchewan supported provincial government efforts to expand safer supply, suggesting a lack of public support is not the main barrier to implementation. Efforts at mobilizing this public opinion are needed to scale up and facilitate evaluation of this drug poisoning response.

Résumé

Objectifs La crise de l'empoisonnement aux drogues qui perdure au Canada contribue à des taux de morbidité et de mortalité sans précédent. Santé Canada finance des programmes pilotes pour aider les personnes qui font usage de drogue à obtenir des médicaments de qualité pharmaceutique de sources plus sûres qui réduisent leur dépendance envers les stocks de médicaments toxiques. Cependant, la plupart des provinces, dont l'Alberta et la Saskatchewan, n'ont pas avalisé ces initiatives. Nous avons exploré l'appui du public aux programmes d'approvisionnement plus sécuritaire dans ces deux provinces canadiennes et cerné les variables prédictives de l'appui à cette option stratégique.

Méthode Nous avons étudié les données transversales d'une enquête par panel menée en ligne qui incluait des mesures d'évaluation des opinions sur les réponses politiques à l'usage de substances et aux toxicomanies. En tout, 1 602 adultes ont été recrutés en mars 2021. Nous avons fait appel à des statistiques descriptives pour caractériser l'appui aux programmes d'approvisionnement plus sécuritaire en Alberta et en Saskatchewan et à une analyse de régression logistique multinomiale pour examiner les variables prédictives de l'appui du public à l'approvisionnement plus sécuritaire.

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Résultats La majorité des répondants (Alberta : 63,5 %; Saskatchewan : 56,3 %) étaient en faveur des programmes d’approvisionnement plus sécuritaire qui remplacent les drogues de rue illicites par des médicaments de qualité pharmaceutiques pour les personnes incapables de cesser de consommer. Les probabilités prédites montrent une probabilité accrue d’appui à l’approvisionnement plus sécuritaire chez les personnes ayant fait des études supérieures et les personnes à gauche de l’échiquier politique.

Conclusion Une majorité de Canadiennes et de Canadiens de l’Alberta et de la Saskatchewan appuyaient les efforts des gouvernements provinciaux pour élargir l’approvisionnement plus sécuritaire, ce qui indique qu’un manque d’appui du public n’est pas le principal obstacle à la mise en œuvre de l’initiative. Des efforts de mobilisation de l’opinion sont nécessaires pour intensifier cette intervention de lutte contre l’empoisonnement aux drogues et pour en faciliter l’évaluation.

Keywords Harm reduction · Safer supply · Public opinion · Cross-sectional study

Mots-clés Réduction des méfaits · approvisionnement plus sécuritaire · opinion publique · étude transversale

Introduction

Over 30,000 Canadians died due to apparent opioid toxicity between January 2016 and March 2022, which equates to approximately 21 deaths per day (Public Health Agency of Canada, September 2022). It is now widely accepted that the contamination of the unregulated drug market with clandestinely manufactured fentanyl and other highly toxic synthetic drugs is a main driver of this mortality and between January and March 2022, 85% of apparent opioid toxicity deaths were attributable to fentanyl and analogues (Public Health Agency of Canada, September 2022). Despite increased access to community-based naloxone, implementation of supervised consumption services, and expanded access to opioid agonist treatments, drug-poisoning deaths continued to increase in Canada, indicating a need for further innovation to reduce morbidity and mortality (Tyndall, 2018).

One emerging policy response to the national drug-poisoning crisis has been the implementation of ‘safer supply’ (or safe supply) programs that dispense pharmaceutical grade alternatives to unregulated street drugs for people at risk of drug poisoning death. The intent behind these harm reduction programs is to reduce health risks and other substance-related harms (e.g. negative impacts of criminalization, stigma, discrimination) for people who are not seeking abstinence from drugs, or for whom conventional agonist treatments have not been effective. While safer supply is informed by research evidence in support of injectable hydromorphone or diacetylmorphine (heroin) treatment for those with treatment refractory opioid use disorder (Oviedo-Joekes et al., 2016), it is distinct from these highly structured programs where uptake and expansion have been limited by high staffing and infrastructure costs and a requirement that participants attend a clinic for observed use multiple times throughout the day (Tyndall, 2018). Health Canada defines safer supply as “... providing prescribed medications as a safer alternative to the toxic illegal drug supply to people who are at high risk of overdose [with a]... focus on meeting the existing needs of people who

use drugs, reducing the risk of overdose by helping people to be less reliant on the toxic illegal drug supply, and providing connections to health and social services where possible and appropriate” (Government of Canada, 2022). A variety of different service delivery models in Canada exist, some of which include “...private practices, mobile outreach, machine-dispensed, hospital-based, and embedded services in hospices, shelters, primary care clinics, community health centres, addiction treatment, and harm reduction programs” (Glegg et al., 2022, p. 4–5). Such programs are unique in that they dispense a range of pharmaceutical grade opioids and stimulants with the potential for mind/body altering properties for *unobserved use* (including medications not currently approved for the treatment of substance use disorder in Canada). Prior to 2019, a handful of safer supply initiatives were distributing ‘off label’ hydromorphone tablets to patients (Ivsins et al., 2020), but the first concerted federal effort to implement safer supply programs came in August 2019, when Health Canada issued a call for proposals to fund pilot safer supply programs through its Substance Use and Addiction Program. Programs funded under this and subsequent federal funding calls are currently undergoing a coordinated, external evaluation.

The onset of the COVID-19 pandemic exacerbated the drug-poisoning crisis (Public Health Agency of Canada, September 2022) and increased the urgency for implementation and evaluation of safer supply programs which have the potential to lower drug-poisoning risk and support people who use drugs to self-isolate and quarantine. In March 2020, Health Canada relaxed some restrictions pertaining to medical provision of controlled substances (Government of Canada, 2020a) and in August 2020, the federal Minister of Health wrote to her provincial and territorial counterparts urging them to support and implement safer supply initiatives (Government of Canada, 2020b). Some national and provincial experts have also published clinical guidance on the provision of safer supply (Brar et al., 2020; British Columbia Centre on Substance Use, 2020; Goyer et al., 2020). Despite these efforts, implementation of safer supply has been

inconsistent across provinces and territories (Glegg et al., 2022) and the vast majority of Canadians at risk of drug poisoning death do not have low-threshold access to safer pharmaceutical alternatives to highly toxic unregulated street drugs.

The slow roll-out of safer supply programs, even on an emergency and trial basis, is likely attributable to two factors. First, many prescribers are reluctant to provide access to opioids and other psychoactive pharmaceuticals due to concerns about the potential for iatrogenic outcomes or diversion (Bromley, 2020) and because formal evaluations of safer supply programs are ongoing. However, emerging data of this novel approach to addressing the overdose crisis are showing promising outcomes including high retention, improvements in health, declines in overdose mortality risk, and some instances of injection drug cessation (Kolla et al., 2022; McNeil et al., 2022; Young et al., 2022). An interrupted time series analysis conducted by Gomes et al. (2022) has suggested that a safer opioid supply program in London, Ontario "...led to important declines in ED visits, inpatient hospital admissions, admissions for incident infections, and health care costs not related to primary care or outpatient medications in the year after program initiation, with no corresponding change observed in a matched group of unexposed individuals residing in London who did not access this program" (p. E1238). Finally, a recent report which details early findings from an independent qualitative assessment of 10 federally funded safer supply projects suggests additional benefits for clients receiving safer supply, including increased stability and decreased stress, increased likelihood of being housed and employed, less engagement with survival sex work, and improved relationships with family members and friends (Government of Canada, 2022). A second factor related to the slow roll-out of safer supply programs is that outside of addiction and mental health ministers in the federal and British Columbia governments, very few elected officials have publicly endorsed safer supply programs. In Alberta and Saskatchewan, the provincial governments have publicly opposed them (Smith, 2020; Vescera, 2020), with some believing that such opposition is based on ideological grounds (Smith, 2020). A recent environmental scan of safer supply prescribing in Canada found that neither Saskatchewan nor Alberta documented safer supply sites as of May 1, 2020 (Glegg et al., 2022).

Even if data on positive outcomes continue to accumulate in support of safer supply, scientific evidence alone is rarely sufficient to prompt political support for scaling up controversial harm reduction strategies. Public opinion is an important determinant of policy change (Burstein, 2003) and has the potential to influence political decision-making on safer supply. In fact, a study by Hobden and Cunningham (2006) determined that anticipated community resistance to harm reduction services was the external barrier mentioned most often by service providers working to establish harm reduction programs in Canada. Given

the acuity of the drug-poisoning crisis in Canada and current efforts to expand and evaluate safer supply, it is timely to examine public support for these programs, particularly in those provinces where services are limited and government support is lacking. We explored levels of public opinion on safer supply programs in Alberta and Saskatchewan and identified predictors of support for this policy option.

Methods

Study design

Data from the Viewpoint Alberta 2021 cross-sectional survey were analyzed for this study. The purpose of the Viewpoint surveys is to assess the current state of public opinion on key policy and political issues. Questions regarding substance use were included alongside questions concerning demographics and political attitudes. The survey was deployed online by Leger (Leger Marketing Inc., 2022), a Canadian-owned market research and analytics company. Eligible participants included English-speaking adults 18 years and older who resided in Alberta and Saskatchewan. A sample of participants from both provinces was recruited using a stratified sampling approach and participants provided responses during the periods March 1–8, 2021 in Alberta and March 1–10, 2021 in Saskatchewan. Participants were invited from Leger's online survey pool based on Census-based quotas related to gender, ethnicity, and age (screening variables). A total of 1602 respondents (802 Alberta, 800 Saskatchewan) completed the survey after first providing their consent (17-min average completion time) and were compensated according to industry standards. Survey measures assessed sociodemographic characteristics; voting behaviour; attitudes towards federalism; the COVID-19 pandemic; substance use and addiction; economic perceptions and economy; and racism, discrimination, and prejudice. Responses are weighted according to the three screening variables to ensure as representative a sample as possible, although in our study ethnicity was not one of our predictor variables of interest. As our study involved human participants, we sought out and received ethical approval from the University of Alberta Research Ethics Board and the University of Saskatchewan Behavioural Research Ethics Board.

Outcome variable

Support for safer supply was determined from responses to the question: "To address substance use and addiction issues, the Alberta/Saskatchewan government should: Support safer supply programs that replace illegal street

drugs with pharmaceutical alternatives for those unable to stop using.” Responses were ranked on a 5-point Likert scale (Strongly Agree; Somewhat Agree; Somewhat Disagree; Strongly Disagree; Don’t Know/Not Sure) which were subsequently collapsed to create three new categories: Support (Strongly Agree and Somewhat Agree); Do Not Support (Strongly Disagree and Somewhat Disagree); and Don’t Know/Not Sure.

Independent variables

Findings from previous studies which assessed correlates of support for harm reduction in Canada and the United States (Angus Reid Institute, 2019; Cruz et al., 2007; Kulesza et al., 2015; McGinty et al., 2018; Strike et al., 2016; Tzemis et al., 2013; Wild et al., 2021) informed our consideration of possible predictor variables. Seven variables, presented in Table 1, highlight the main respondent demographics. The least absolute shrinkage and selection operator (LASSO) method of model selection was performed on the dataset to determine important predictor variables to be included in the model. Four independent variables were selected by the LASSO method with cross-validation and included in the final model: education, employment, left/right political spectrum, and urban/rural living. Education was measured on a Likert scale using the question, “What is the highest level of school you have completed or the highest degree you have received?” Employment status was assessed by asking respondents: “Which of the following categories best describes your employment status?” To place respondents along a left-right political spectrum, we asked: “In politics, people sometimes talk of left and right. Where would you place yourself on a scale from 0 to 10, where 0 means very left-wing, and 10 means very right-wing?” Responses were then merged as follows: 0–1 = far left, 2–4 = centre left, 5 = centre, 6–8 = centre right, and 9–10 = far right. Finally, we asked respondents “Which of the following best describes the area you live in?” with valid responses being urban, suburban, or rural.

Statistical analyses

Multinomial logistic regression analysis was used, with all assumptions being met prior to analysis. The study data were weighted for age and gender during analysis (a form of post stratification) in order to reduce bias that may have occurred during the data collection process. Relative risk ratios (RRR), 95% confidence intervals (CI), and p values (where $p \leq 0.05$ is considered statistically significant) were calculated, from which probabilities of support for safer supply were predicted. Results in this study are presented as graphical representations of predicted mean probabilities. All analyses, including model selection methods, were conducted using Stata (Stata Corp., College Station, TX).

Results

Respondent characteristics

A total of 1602 respondents participated in the survey from across Alberta and Saskatchewan, of whom 1233 were included in the regression analysis (participants with missing data were omitted using listwise deletion). Of these, 63.5% of respondents indicated support for safer supply in Alberta, 24.1% disagreed, and 12.4% stated “Don’t Know/Not Sure”. In Saskatchewan, 56.3% of respondents indicated support for safer supply, 25.8% disagreed, and 18.0% were unsure. Table 1 summarizes the characteristics of respondents in our survey.

Regression analyses

RRR/Relative risk (RR) and 95% CI for variables associated with support for safer supply programs are outlined in Table 2 (coefficients with $p \leq 0.05$ are in bold). Respondents who identified as politically leaning far left had the highest (91.7%) probability of supporting safer supply policies (Fig. 1), while those with a graduate or professional degree (67.6%) had the highest predicted probability of support for safer supply among the education predictor group (Fig. 2). There was no significant difference in level of support within the employment and urban/rural predictor groups.

Discussion

Our results indicate that the majority of respondents (AB: 63.5% and SK: 56.3%) support safer supply programs that replace illegal street drugs with pharmaceutical alternatives for those unable to stop using drugs. This model also predicts a greater probability of support among those leaning left on the political spectrum and those with a higher level of education. Both of these findings align with previous research that has found support for other harm reduction programs is correlated with a more liberal/progressive political ideology (Angus Reid Institute, 2019; Kulesza et al., 2015; McGinty et al., 2018; Wild et al., 2021) and higher education (Cruz et al., 2007; Tzemis et al., 2013). With this in mind, health professionals, researchers, and not-for-profit organizations aiming to increase public understanding and support for safer supply programs may want to consider sharing their advocacy messages with more politically conservative communities and those with less formal education in order to increase public understanding regarding the priority and salience of the overdose crisis and the potential role of safer supply in mitigating substance-related harms. Unlike McGinty et al. (2018), who reported an association

Table 1 Distribution of characteristics for the study population by participating province ($N=1602$)

Respondent characteristics	Saskatchewan ($N=800$)		Alberta ($N=802$)	
	Unweighted n (%)	Weighted n (%)	Unweighted n (%)	Weighted n (%)
Safer supply				
Do not support	206 (25.8%)	205 (25.7%)	193 (24.1%)	202 (25.2%)
Support	450 (56.3%)	452 (56.5%)	509 (63.5%)	496 (61.9%)
Don't know/Not sure	144 (18.0%)	143 (17.9%)	100 (12.4%)	104 (12.9%)
Gender				
Male	470 (59.5%)	406 (51.7%)	412 (52.2%)	403 (51.1%)
Female	320 (40.5%)	379 (48.3%)	377 (47.8%)	385 (48.9%)
Age				
18-34	165 (20.6%)	239 (30.0%)	245 (30.6%)	255 (31.9%)
35-54	256 (32.0%)	262 (32.7%)	299 (37.3%)	291 (36.3%)
55+	379 (47.4%)	299 (27.3%)	258 (32.1%)	256 (31.8%)
Education				
<High school	24 (3.0%)	37 (4.6%)	13 (1.6%)	15.9 (2.1%)
High school	162 (20.3%)	200 (25.1%)	115 (14.3%)	152.6 (19.0%)
Some college	125 (15.6%)	165 (20.7%)	137 (17.1%)	182.2 (22.7%)
Trade/University certificate	223 (27.9%)	244 (30.5%)	170 (21.2%)	224.2 (27.9%)
Bachelors	193 (24.1%)	113 (14.1%)	255 (31.8%)	157.9 (19.7%)
Graduate level	73 (9.1%)	39 (5.0%)	112 (14.0%)	68.8 (8.6%)
Urban/Rural				
Urban	421 (52.6%)	409 (51.2%)	402 (50.1%)	388 (48.4%)
Suburban	175 (21.9%)	186 (23.2%)	293 (36.6%)	295 (36.7%)
Rural	204 (25.5%)	205 (25.6%)	107 (13.3%)	119 (14.9%)
Household income				
<\$20,000	67 (8.3%)	81 (10.1%)	43 (5.4%)	52 (6.4%)
\$20,000–\$39,999	129 (16.1%)	143 (17.9%)	110 (13.7%)	128 (16.0%)
\$40,000–\$59,999	151 (18.9%)	150 (18.8%)	110 (13.7%)	112 (13.9%)
\$60,000–\$79,999	126 (15.8%)	121 (15.2%)	123 (15.3%)	126 (15.8%)
\$80,000–\$99,999	114 (14.3%)	117 (14.7%)	125 (15.6%)	122 (15.3%)
≥\$100,000	213 (26.6%)	187 (23.3%)	291 (36.3%)	261 (32.6%)
Employment status				
Working full-time	319 (56.4%)	324 (53.1%)	364 (54.6%)	342 (51.3%)
Working part-time	110 (19.4%)	117 (19.1%)	103 (15.4%)	109 (16.3%)
Unemployed	61 (11.0%)	65 (10.7%)	74 (11.1%)	80 (12.0%)
Stay home full-time	52 (9.2%)	53 (8.7%)	57 (8.6%)	61 (9.1%)
Student	23 (4.1%)	51 (8.4%)	69 (10.3%)	74 (11.2%)
Political spectrum				
Far left	59 (7.4%)	56 (6.9%)	81 (10.1%)	79 (9.8%)
Centre left	117 (14.6%)	103 (12.9%)	152 (19.0%)	145 (18.0%)
Centre	326 (40.8%)	345 (43.1%)	273 (34.0%)	281 (35.1%)
Centre right	181 (22.6%)	177 (22.1%)	183 (22.8%)	188 (23.5%)
Far right	117 (14.6%)	120 (15.0%)	113 (14.1%)	108 (13.5%)

between support for the legalization of safe consumption sites and unemployment status, we found no association between support for safer supply programs and employment. Income (Cruz et al., 2007; McGinty et al., 2018;

Strike et al., 2016) and gender (Kulesza et al., 2015; Tzemis et al., 2013), which have been found to have mixed results in other studies investigating support for harm reduction interventions, were not significant in our model.

Table 2 Relative risk ratios (RRR) for multinomial regression analysis of the relationship between four main predictor factors and support for safer supply programs

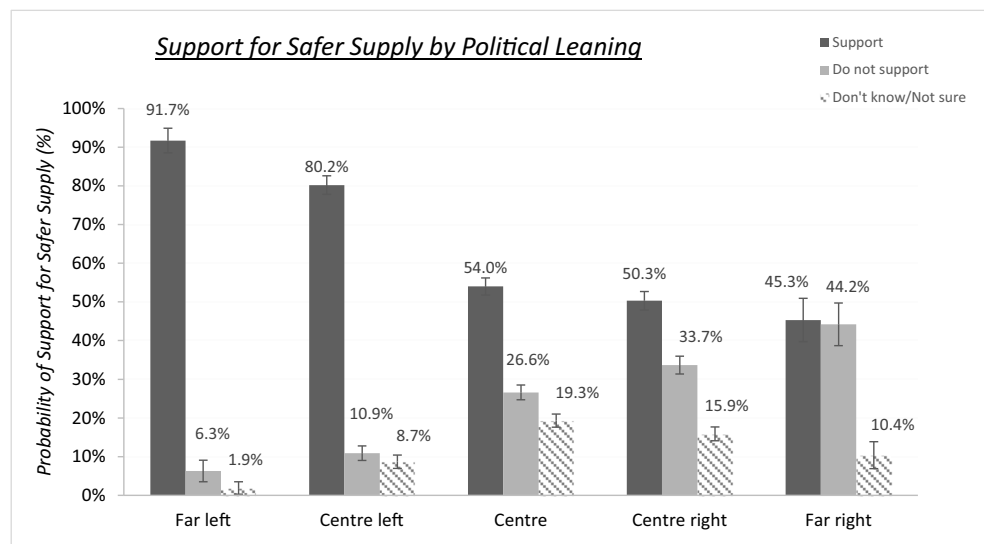
Variables	RRR (95% CI)		RRR (95% CI)	
	Support vs. Do not support	<i>p</i> value	Do not know/Unsure vs. Do not support	<i>p</i> value
Education				
<High school (reference)	1		1	
High school/GED	2.72 (1.18–6.26)	0.02	4.79 (1.39–16.48)	0.01
Some college/no degree	1.51 (0.67–3.43)	0.32	2.25 (0.66–7.70)	0.19
Trade/University certificate	1.03 (0.46–2.30)	0.94	1.13 (0.33–3.87)	0.85
Bachelors	2.29 (0.99–5.29)	0.05	2.50 (0.71–8.84)	0.15
Graduate/Professional	2.36 (0.94–5.92)	0.07	2.09 (0.52–8.43)	0.30
Employment				
Work full-time (reference)	1		1	
Work part-time	0.93 (0.64–1.34)	0.69	0.80 (0.47–1.37)	0.42
Unemployed	1.21 (0.77–1.89)	0.41	1.46 (0.81–2.63)	0.20
Stay home full-time	1.09 (0.66–1.82)	0.73	1.94 (1.04–3.59)	0.04
Student	1.24 (0.73–2.11)	0.43	1.50 (0.77–2.94)	0.23
Political spectrum				
Far left (reference)	1		1	
Centre left	0.50 (0.18–1.43)	0.19	2.65 (0.36–19.59)	0.34
Centre	0.14 (0.05–0.37)	<0.01	2.37 (0.34–16.55)	0.39
Centre right	0.09 (0.04–0.27)	<0.01	1.51 (0.21–10.57)	0.68
Far right	0.07 (0.02–0.19)	<0.01	0.73 (0.09–5.87)	0.77
Urban/Rural				
Urban (reference)	1		1	
Suburban	1.01 (0.74–1.39)	0.93	1.54 (1.02–2.33)	0.04
Rural	0.76 (0.53–1.11)	0.16	0.79 (0.46–1.33)	0.37

Coefficients with $p \leq 0.05$ are in bold

Although public health policymaking related to structurally vulnerable populations should not be contingent on favourable public opinion, our findings show that the general

public in Alberta is relatively supportive of the concept of safer supply, even in a political context where the provincial government is openly opposed (Smith, 2020). Higher public

Fig. 1 Mean percentage probability of support for safer supply programs by respondents’ political leaning at 5% level of significance



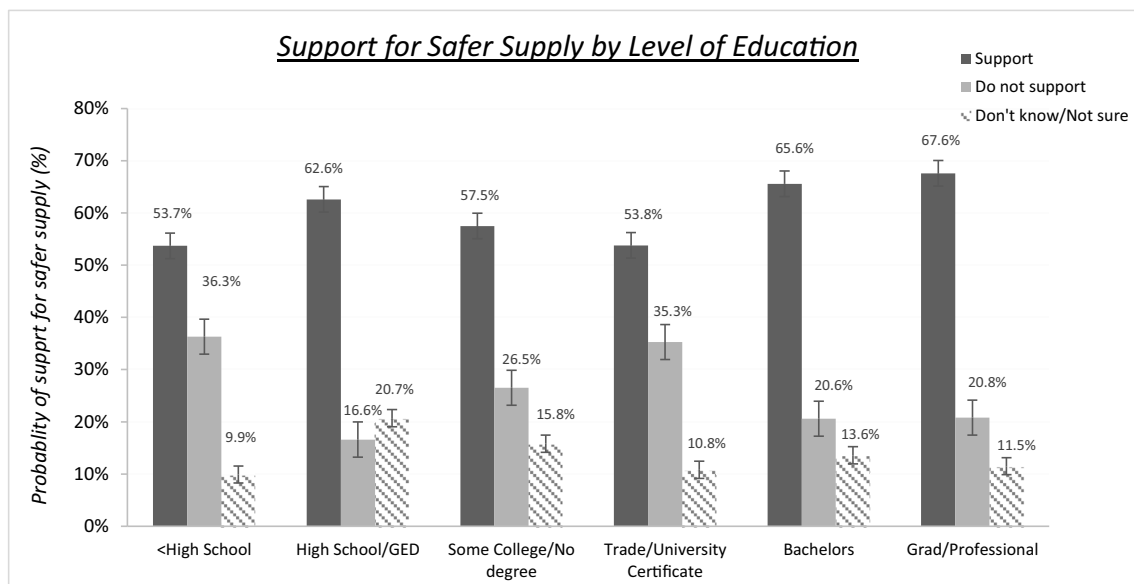


Fig. 2 Mean percentage probability of support for safer supply programs by respondents' level of education at 5% level of significance

support for safer supply programs in Alberta vs. in Saskatchewan could be attributable to the fact that Alberta has two injectable opioid agonist treatment programs, which are similar to safer supply but adopt a more structured model of care with directly observed use. Additionally, after 6 years of an increasingly acute drug poisoning crisis, there may be greater understanding of the complexity of the crisis and more willingness to try new approaches in the province. While most Albertans appear to be onside with safer supply programs, voters' positions on the issue are only one link between public opinion and public policy. It is also important to consider how much priority voters place on the issue (Barbera et al., 2019). Given the state of public opinion at the time we collected data—which saw people in Alberta and Saskatchewan prioritizing economic recovery and pandemic management—both governments may have maintained their antithetical position toward safer supply on the assumption that the issue, itself, was not salient enough to cost them public support.

Limitations

This study has a number of limitations. First, as socio-demographic and attitudinal data are self-reported, the potential exists for participants to have responded inaccurately or in a way that is socially desirable. If the latter point were true, it could indicate that community norms around drug use and safer supply programs have shifted relative to traditional understandings of Alberta's and Saskatchewan's socially conservative political culture (Rasmussen, 2016; Sayers & Stewart, 2016). Longitudinal research is required to test this hypothesis. Our study participants resided in Alberta and Saskatchewan, which limits generalizability and suggests the need for a national survey that could include cross-provincial

comparisons of support for safer supply. Our data source did not enable us to explore all known predictors of support for harm reduction programs, and the method of variable selection (LASSO regression) does not allow for selection of variables based on theory, rather it is automated. Limitations also pertain to the generalizability of findings from online surveys as individuals with limited literacy and computer/ownership are less likely to take part in such studies (Andrade, 2020). Finally, additional research that captures the context of how and why people hold the opinions they do with regard to safer supply programs could shed light on where advancements might be made in education and advocacy efforts related to this promising approach to addressing drug poisoning in Canada.

Conclusion

This study demonstrates that support for safer supply programs is both diffuse and relatively high in Alberta and Saskatchewan. That government policy remains out of step with public opinion reveals unique challenges and opportunities for advocates of safer supply. While 12.4% of our study participants from Alberta and 18% from Saskatchewan expressed being unsure about this policy option, public education and persuasion does not appear to be the biggest hurdle. A majority of people in both provinces are on board with safer supply, and this support cuts across most socio-demographic groups. Rather, advocates must convert this existing public support into policy change, by elevating the priority and salience of drug poisoning as an issue worth addressing in the first place.

Contributions to knowledge

What does this study add to existing knowledge?

- This is the first peer-reviewed public opinion data on support for safer supply in Canada as a policy option for preventing overdose and other substance-related harms.
- The majority of respondents in Alberta and Saskatchewan support safer supply programs that replace illegal street drugs with pharmaceutical alternatives for those unable or who do not wish to stop using drugs. Respondents who identified as politically leaning far left and those with a graduate or professional degree had the highest probability of supporting safer supply policies.

What are the key implications for public health interventions, practice, or policy?

- There is a lack of congruence between public support for safer supply in Alberta and Saskatchewan and government policies in support of such initiatives in these two provinces.
- Those working to increase public support for safer supply initiatives should consider tailoring their advocacy efforts to Canadians who are more politically conservative and those with lower levels of formal education.

Author contributions HM, HB, JW, and EH were involved with conceptualization, methodology, project administration, formal analysis, and writing original draft. JW, HM, and HB were involved in data curation. JW and EH were involved with resources, supervision, and funding acquisition. All authors read and approved the final version for publication.

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Data availability Reasonable requests for data will be accommodated by the corresponding author upon completion of a data transfer agreement and only in circumstances where such requests are covered under the existing ethics approval.

Code availability Stata code is available upon reasonable request from the corresponding author provided that this request is covered under the existing ethics approval.

Declarations

Ethics approval University of Alberta Research Ethics Board (#Pro00102979) and the University of Saskatchewan Behavioural Research Ethics Board (UofS does not provide a number in this case).

Consent to participate Informed consent was provided by all research participants.

Consent for publication N/A

Conflict of interest The authors declare no competing interests. Elaine Hyska currently serves as volunteer Co-Chair of Health Canada's Expert Advisory Group on Safer Supply. She is also a co-investigator on a CIHR-funded evaluation of safer supply programs.

References

- Andrade, C. (2020). The limitations of online surveys. *Indian Journal of Psychological Medicine*, 42(6), 575–576. <https://doi.org/10.1177/0253717620957496>
- Angus Reid Institute. (2019, February 15). *Mandatory treatment? Decriminalization? As opioid epidemic rages, Canadians seek extreme measures to save lives*. Retrieved from <http://angusreid.org/opioid-crisis-2019/>. Accessed 5 Jan 2023.
- Barbera, P., Casas, A., Nagler, J., Egan, P., Bonneau, R., Jost, J., & Tucker, J. (2019). Who leads? Who follows? Measuring issue attention and agenda setting by legislators and the mass public using social media data. *American Political Science Review*, 113(4), 883–901. <https://doi.org/10.1017/S0003055419000352>
- Brar, R., Bruneau, J., Butt, P., Goyer, M-E., Lim, R., Poulin, G., Sereda, A., Robinson, S., Ross, J., & Wood, E. (2020). *Medications and other clinical approaches to support physical distancing for people who use substances during the COVID-19 pandemic: National Rapid Guidance Document*. Vancouver, British Columbia: Canadian Research Initiative in Substance Misuse, Vers. 1. <https://crism.ca/wp-content/uploads/2020/06/CRISM-Guidance-Medications-and-other-clinical-approaches-22062020-final.pdf>
- British Columbia Centre on Substance Use. (2020). *Risk mitigation in the context of dual public health emergencies (version 1.5)*. <https://www.bccsu.ca/wp-content/uploads/2020/04/Risk-Mitigation-in-the-Context-of-Dual-Public-Health-Emergencies-v1.5.pdf>
- Bromley, L. A. (2020). Problems with hydromorphone prescribing as a response to the opioid crisis. *Canadian Medical Association Journal*, 192, E219–E220. <https://doi.org/10.1503/cmaj.74065>
- Burstein, P. (2003). The impact of public opinion on public policy: A review and an agenda. *Political Research Quarterly*, 56(1), 29–40. <https://doi.org/10.1177/1065911290305600103>
- Cruz, M., Patra, J., Fischer, B., Rehm, J., & Kalousek, K. (2007). Public opinion towards supervised injection facilities and heroin-assisted treatment in Ontario, Canada. *International Journal of Drug Policy*, 18, 54–61. <https://doi.org/10.1016/j.drugpo.2006.12.001>
- Glegg, S., McCrae, K., Kolla, G., Touesnard, N., Turnbull, J., Brothers, T. D., Brar, R., Sutherland, C., Le Foll, B., Sereda, A., Goyer, M-E., Rai, N., Bernstein, S., & Fairbairn, N. (2022). 'COVID just kind of opened a can of whoop-ass': The rapid growth of safer supply prescribing during the pandemic documented through an environmental scan of addiction and harm reduction services in Canada. *International Journal of Drug Policy*, 106, 1–9. <https://doi.org/10.1016/j.drugpo.2022.103742>
- Gomes, T., Kolla, G., McCormack, D., Sereda, A., Kitchen, S., & Antoniou, T. (2022). Clinical outcomes and health care costs among people entering a safer opioid supply program in Ontario. *CMAJ*, 194(36), E1233–E1242. <https://doi.org/10.1503/mjaf.220892>
- Government of Canada. (2020a). *Relevant exemptions to the controlled drugs and substances act*. <https://www.canada.ca/en/health-canada/>

- services/substance-use/toolkit-substance-use-covid-19/exemptions-controlled-drugs-substances-act.html
- Government of Canada. (2020b). *Letter from the Minister of Health regarding treatment and safer supply*. <https://www.canada.ca/en/health-canada/services/substance-use/minister-letter-treatment-safer-supply.html>
- Government of Canada. (2022). *Safer supply*. Retrieved from <https://www.canada.ca/en/health-canada/services/opioids/responding-canada-opioid-crisis/safer-supply.html>
- Goyer, M.-E., Hudon, K., Plessis-Belair, M.-C., & Ferguson, Y. (2020). *Substance replacement therapy in the context of the COVID-19 pandemic in Québec: Clinical guidance for prescribers*. http://dependanceitinerance.ca/wp-content/uploads/2020/10/Guide-Pharmaco-COVID_ANG-VF.19.10.20.pdf
- Hobden, K. L., & Cunningham, J. A. (2006). Barriers to the dissemination of four harm reduction strategies: A survey of addiction treatment providers in Ontario. *Harm Reduction Journal*, 3(35), 1–20. <https://doi.org/10.1186/1477-7517-3-35>
- Ivsins, A., Boyd, J., Mayer, S., Collins, A., Sutherland, C., Kerr, T., & McNeil, R. (2020). Barriers and facilitators to a novel low-barrier hydromorphone distribution program in Vancouver, Canada: A qualitative study. *Drug and Alcohol Dependence*, 216, 1–8. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7490624/>
- Kolla, G., Long, C., Perri, M., Bowra, A., & Penn, R. (2022). *Safer opioid supply program: Summary report*. London: London Intercommunity Health Centre. <https://lihc.on.ca/wp-content/uploads/2022/01/2022-LIHC-SOS-Program-Summary-Report.pdf>
- Kulesza, M., Teachman, B. A., Wertz, A. J., Gasser, M. L., & Lindgren, K. (2015). Correlates of public support toward federal funding for harm reduction strategies. *Substance Abuse Treatment, Prevention, and Policy*, 10(25), 1–8. <https://doi.org/10.1186/s13011-015-0022-5>
- Leger Marketing Inc. (2022). Leger. Retrieved from <https://leger360.com/>
- McGinty, E. E., Barry, C. L., Stone, E. M., Niederdeppe, J., Kennedy-Hendricks, A., Linden, S., & Sherman, S. G. (2018). Public support for safe consumption sites and syringe services programs to combat the opioid epidemic. *Preventive Medicine*, 111, 73–77. <https://doi.org/10.1016/j.ypmed.2018.02.026>
- McNeil, R., Fleming, T., Mayer, S., Barker, A., Mansoor, M., Betsos, A., Austin, T., Parusel, S., Ivsins, A., & Boyd, J. (2022). Implementation of safe supply alternatives during intersecting COVID-19 and overdose health emergencies in British Columbia, Canada, 2021. *American Journal of Public Health*, 112(S2), S151–S158. <https://doi.org/10.2105/AJPH.2021.306692>
- Oviedo-Joekes, E., Guh, D., Brissette, S., Marchand, K., MacDonald, S., Lock, K., Harrison, S., Janmohamed, A., Anis, A., Krausz, M., Marsh, D., & Schechter, M. T. (2016). Hydromorphone compared with diacetylmorphine for long-term opioid dependence: A randomized clinical trial. *JAMA Psychiatry*, 73(5), 447–455. <https://doi.org/10.1001/jamapsychiatry.2016.0109>
- Public Health Agency of Canada. (2022). Special Advisory Committee on the Epidemic of Opioid Overdoses. *Opioid- and stimulant-related harms in Canada*. Ottawa: Public Health Agency of Canada. <https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants/>
- Rasmussen, K. (2016). “Saskatchewan” in *big worlds: Politics and elections in the Canadian provinces and territories*. University of Toronto Press.
- Sayers, A. M., & Stewart, D. K. (2016). “Alberta” in *big worlds: Politics and elections in the Canadian provinces and territories*. University of Toronto Press.
- Smith, A. (2020, October 3). Province won’t consider safe supply programs to address spiking overdose deaths. *The Calgary Herald*. <https://calgaryherald.com/news/politics/province-wont-consider-safe-supply-programs-to-address-spiking-overdose-deaths>
- Strike, C., Khobzi Rotondi, N., Watson, T. M., Kolla, G., & Bayoumia, A. M. (2016). Public opinions about supervised smoking facilities for crack cocaine and other stimulants. *Substance Abuse Treatment, Prevention, and Policy*, 11(8), 1–10. <https://doi.org/10.1186/s13011-016-0052-7>
- Tyndall, M. (2018). An emergency response to the opioid overdose crisis in Canada: A regulated opioid distribution program. *Canadian Medical Association Journal*, 190(2), E35–E36. <https://doi.org/10.1503/cmaj.171060>
- Tzemis, D., Campbell, J., Kuo, M., & Buxton, J. A. (2013). A cross-sectional study of public attitudes towards safer drug use practices in British Columbia, Canada. *Substance Abuse Treatment, Prevention, and Policy*, 8(40), 1–9. <https://doi.org/10.1186/1747-597X-8-40>
- Vescera, Z. (2020, September 13). Sask. health minister not interested in feds ‘safer supply’ pitch. *Saskatoon Star Phoenix*. <https://thestarphoenix.com/news/local-news/sask-health-minister-not-interested-in-feds-safer-supply-pitch>
- Wild, C. T., Koziel, J., Anderson-Baron, J., Asbridge, M., Belle-Isle, L., Dell, C., Elliott, R., Hathaway, A., MacPherson, D., McBride, K., Pauly, B., Strike, C., Galovan, A., & Hyshka, E. (2021). Public support for harm reduction: A population survey of Canadian adults. *PLoS ONE*, 1–18. <https://doi.org/10.1371/journal.pone.0251860>
- Young, S., Kolla, G., McCormack, D., Campbell, T., Leece, P., Strike, C., Srivastava, A., Antoniou, T., Bayoumi, A. M., & Gomes, T. (2022). Characterizing safer supply prescribing of immediate release hydromorphone for individuals with opioid use disorder across Ontario, Canada. *International Journal of Drug Policy*, 102. <https://doi.org/10.1016/j.drugpo.2022.103601>

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