

The Trans PULSE Canada project collected survey data from 2,873 trans and non-binary people in 2019. This report presents results from the first national data on health and well-being among trans and non-binary sex workers.

HEALTH AND WELL-BEING AMONG TRANS AND NON-BINARY PEOPLE DOING SEX WORK



Highlights

Among trans and non-binary participants:

- 58% of sex workers reported living in low-income households.
- 72% of sex workers had fair or poor self-rated mental health.
- Two times as many sex workers as non-sex workers reported having experienced physical or sexual assault in the past 5 years.
- 87%-96% of sex workers did not anticipate fair treatment from police and the legal system if they were to be assaulted.

Context

Transgender (trans) and non-binary people appear more likely than cisgender people to do sex work.^{1,2} A previous study estimated that 14% of trans people in Ontario had ever done sex work and 3% were current sex workers.³ Trans-specific reasons for doing sex work may include employment discrimination, housing insecurity, the need to fund gender-affirming care, and benefits including access to community and affirmation of gender identity.^{1,2,4} Much existing research on trans sex workers focuses on human immunodeficiency virus (HIV) risk,^{2,5} but has also identified other important health concerns and social determinants of health including high levels of violence, limited access to justice, and stigma in healthcare settings.^{1,2,4,6,7}

The health of sex workers in Canada is shaped by the criminalization of sex work. In 2013, the Supreme Court struck down Canada's previous sex work criminalization laws as unconstitutional. In response, in 2014 the government passed legislation that criminalizes sex workers' clients. Sex worker rights organizations opposed this legislation, and recent studies indicate it has negatively impacted health and safety among marginalized sex workers.⁸ Despite these important policy changes, Canadian research on trans and non-binary sex workers is limited, and research inclusive of trans men and non-binary sex workers is scarce globally.^{5,6} This report provides the first quantitative nationwide profile of the health and well-being of trans and non-binary sex workers in Canada.

Trans PULSE Canada

Over a 10-week period in 2019, the Trans PULSE Canada research team collected survey data from 2,873 trans and non-binary people age 14 years or older and living in Canada. Participants were able to complete the full survey or a 10-minute short form online, on paper, via telephone (with or without a language interpreter), or on a tablet with a Peer Research Associate (only in major cities). The 10-minute short form contained key items from the full survey, and both versions were available in English or French. The Trans PULSE Canada survey included questions from Ontario's Trans PULSE project, questions from Statistics Canada surveys to allow for comparisons to the general population, and questions developed by trans and non-binary people based on community priorities. This report especially highlights questions developed by the team's Sex Work Priority Population Team.

How to Interpret

This report presents results comparing those who did sex work in the past year to those who did not do sex work in the past year. Sex work was not defined for participants, though those who reported doing

Table 1: Distribution of sex workers and non-sex workers across provinces and territories

	Sex workers n=133 %	Non-sex workers n=2236 %
Current province/territory		
Alberta	10	19
British Columbia	15	19
Manitoba	2	3
New Brunswick	4	2
Newfoundland and Labrador	0.8	1
Nova Scotia	2	4
Ontario	33	36
Prince Edward Island	0.8	0.5
Quebec	31	11
Saskatchewan	2	4
Northwest Territories	0	0.1
Nunavut	0	0.04
Yukon	0	0.3

sex work were asked to indicate the types of work they were doing. Questions on employment and income, including sex work, were limited to participants aged 16 and older. 4.8% (n=133) of all survey participants were current sex workers.

Although Trans PULSE Canada used multiple approaches to make the survey accessible, it was not possible to conduct a random sample of the trans and non-binary population. Thus, results cannot be assumed to represent true population demographics. For instance, that 4.8% of participants were doing sex work, does not mean exactly 4.8% of all trans and non-binary people in Canada are doing sex work.

The final column of all comparative tables in this report contains a p-value. A p-value indicates whether there is a statistically significant difference between groups - here, the groups are current sex workers and non-sex workers (Tables 2, 3, 5, 6, 7) or gender identity groups (Table 4). P-values that are less than 0.0500 indicate that differences between groups are statistically significant, while p-values that are greater than or equal to 0.0500 indicate that there is no statistically significant difference.

Table 2: Socio-demographics

	Sex workers n=133 %	Non-sex workers n=2236 %	P-value ^a
Age			0.024
14 - 19	5	10	
20 - 24	30	22	
25 - 34	44	37	
35 - 49	17	21	
50 - 64	4	8	
65 +	0.8	1	
Gender			0.003
Woman or girl	35	24	
Man or boy	13	25	
Indigenous or cultural gender	3	2	
Non-binary or similar	50	50	
Sexual orientation (check all that apply) ^b			
Asexual	7	14	0.017
Bisexual	32	28	0.360
Gay	10	13	0.249
Lesbian	20	16	0.256
Pansexual	41	31	0.016
Queer	47	54	0.090
Straight or heterosexual	10	7	0.206
Two-Spirit	2	4	0.482
Unsure or questioning	7	8	0.561
Relationship status			0.007
Not in a relationship	47	46	
In a monogamous relationship	23	33	
In a non-monogamous or polyamorous rela- tionship(s)	31	21	
Legal marital status			0.003
Single, never married	78	63	
Separated or divorced	8	11	
Widowed	0.8	0.4	
Married or common- law	13	26	
Indigenous in Canada			0.692
Indigenous in Canada	7	8	
Not Indigenous in Canada	93	92	

Table 2: Socio-demographics, continued

	Sex workers n=133 %	Non-sex workers n=2236 %	P-value ^a
Racialization			0.077
Racialized	19	13	
Not racialized	81	87	
Immigration history			0.846
Newcomer (past 5 years)	4	4	
Immigrant (non- newcomer)	11	9	
Born in Canada	86	87	
Urban / rural ^c			0.394
Rural or small town	5	7	
Not rural or small town	95	93	
Parent (including adult children)			0.039
Parent	10	17	
Not a parent	90	83	
Disability identities (check all that apply) ^b			
Autistic	14	14	0.891
Blind	0	0.4	1.000
Crip	2	2	1.000
Deaf	0	1	0.642
Disabled or living with a disability	28	19	0.019
Chronic pain	23	22	0.814
Neurodivergent	38	31	0.094
Psychiatric survivor, mad, or person with mental illness	57	44	0.002
Other	5	7	0.539
Education (age ≥ 25) ^d			0.005
< High school	6	3	
High school diploma	12	7	
Some college or uni- versity	31	21	
College or university degree	43	48	
Grad/professional degree	8	21	
Employment situation (age ≥ 25) ^d			0.0004
Permanent full-time	24	44	
Employed, not perma- nent full-time	53	33	
Not employed or on leave	19	16	
Not employed and student or retired	3	7	

Table 2: Socio-demographics, continued

	Sex workers n=133 %	Non-sex workers n=2236 %	P-value ^a
Personal annual income (past year, age ≥ 25) ^d			
			0.001
None	1	2	
< \$15,000	34	23	
\$15,000 - \$29,000	26	24	
\$30,000 - \$49,000	31	21	
\$50,000 - \$79,000	5	18	
\$80,000 +	4	12	
Income from social assistance or disability (past year, age ≥ 16) ^e			
			<0.0001
Public social assistance or welfare	28	8	
Public disability support	7	7	
Both	4	3	
Neither	60	82	
Portion of income received in cash (past 3 months, age ≥ 16) ^e			
			<0.0001
Most	14	4	
Above half	9	2	
Less than half	37	15	
None	40	79	
Low-income household (past year, age ≥ 25) ^d			
			0.001
Low-income household	58	39	
Non-low-income household	42	61	

a Values <0.0500 indicate that differences between groups are statistically significant.

b Participants could select more than one option, so total will be more than 100%.

c Rural and small town includes participants who reported a postal code or forward sortation area for a town or municipality with population <10,000.

d Personal income, education, and employment are reported here for those age 25 and older; additional data on student status and other factors will be reported in our youth report.

e These variables were missing for 10% of participants or more.

Socio-demographics

Table 1 shows that sex workers were similarly distributed across Canada to other Trans PULSE Canada participants but there was a notably higher proportion of sex workers living in Quebec (31% vs. 11%) and a lower proportion living in Alberta (10% vs. 19%).

Table 2 describes the sociodemographic characteristics of sex workers, as compared to non-sex workers. Most current sex workers were between 20-24 (30%) or 25-34 (44%) years old. Half of the sex workers identified as non-binary or a similar identity, as did Trans PULSE Canada participants overall. Sex workers were more likely to identify as women or girls than non-sex workers (35% vs. 24%). Over half (54%) of sex workers were in relationships and one in ten was a parent. Seven percent of sex workers were Indigenous and 15% were born outside Canada, similar to non-sex workers; however, sex workers were more likely to be racialized (19% vs. 13%). Sex workers were more likely than non-sex workers to identify as disabled (28% vs. 19%) or as psychiatric survivors or people with mental illness (57% vs. 44%). Sex workers differed from other Trans PULSE Canada participants with regard to education, employment, and income. Fewer sex workers reported full-time permanent employment (24% vs. 44%) and personal annual incomes above \$50,000 (9% vs. 30%). Sex workers were more likely to have received social assistance in the past year (28% vs. 8%), receive more than half of their income in cash (23% vs. 6%), and live in low-income households (58% vs. 39%).

Health & Well-being

As shown in Table 3, sex workers had greater barriers to health care than other Trans PULSE Canada participants, including not having a primary care provider (26% vs. 19%), unmet health care need(s) (63% vs. 44%), and emergency room avoidance in the past year (20% vs. 11%). In contrast, sex workers were more likely to have been tested for HIV or other sexually transmitted infections (STIs): half had been tested for HIV within the previous year, and 73% for

Table 3: Health & well-being

	Sex workers n=133 %	Non-sex workers n=2236 %	P-value ^a
Has primary health care provider			0.038
Yes	74	81	
No	26	19	
Unmet health care need(s) (past year)			<0.0001
Unmet need(s)	63	44	
No unmet need	37	56	
Avoided emergency room (past year)			0.011
Yes	20	11	
No	64	68	
Never needed ER care	17	21	
Gender-affirming medical care status			0.898
Had all needed care	26	26	
In the process of completing	32	32	
Planning, but not begun	14	14	
Not planning	14	12	
Unsure if going to seek care	14	16	
Self-rated health			0.033
Excellent or very good	26	38	
Good	42	36	
Fair or poor	32	27	
Self-rated mental health			0.0003
Excellent or very good	10	17	
Good	18	29	
Fair or poor	72	54	
Considered suicide (past year)			0.026
Yes	39	30	
No	61	70	
Attempted suicide (past year)			0.015
Yes	10	5	
No	90	95	
Experienced violence or harassment (past 5 years, check all that apply) ^b			
Verbal harassment	80	68	0.002
Physical intimidation or threats	52	37	0.0004
Physical violence	29	15	<0.0001
Sexual harassment	71	41	<0.0001
Sexual assault	52	24	<0.0001

Table 3: Health & well-being, continued

	Sex workers n=133 %	Non-sex workers n=2236 %	P-value ^a
Avoided public spaces for fear of harassment or outing (past 5 years) ^c			0.236
No avoidance	20	15	
1 or 2 types of spaces	17	20	
3 or more types of spaces	63	64	
Avoidance of specific spaces for fear of harassment or outing (past 5 years, check all that apply) ^b			
Public spaces	36	26	0.012
Public bathrooms	55	62	0.098
Schools	24	11	<0.0001
Housing security			0.001
Secure	81	91	
Insecure ^d	19	9	
Household food security (past year)			<0.0001
Always had enough to eat	68	86	
Sometimes did not have enough	20	11	
Often did not have enough	12	3	
Timing of most recent HIV test			<0.0001
Less than 1 year ago	50	21	
1 to less than 2 years ago	10	9	
2 or more years ago	11	19	
Has never had an HIV test	29	51	
Timing of most recent STI test			<0.0001
Less than 1 year ago	73	27	
1 to less than 2 years ago	7	12	
2 or more years ago	6	21	
Has never had an STI test	13	40	
Ever taken PrEP for HIV prevention			<0.0001
Yes, currently	6	0.8	
Yes, in the past	8	1	
No	86	98	

a Values <0.0500 indicate that differences between groups are statistically significant.

b Participants could select more than one option, so total will be more than 100%.

c Of 14 spaces given as options in survey (e.g., public washrooms, schools, being out on the land, public transit).

d Includes living in shelters, motels or boarding houses, temporarily with partners/friends/family, on the street, in a car, or in an abandoned building.

Table 4: Sex work experiences by gender identity among current sex workers

	All sex workers n=133 Mean (SD)	Women n=46 Mean (SD)	Men n=17 Mean (SD)	Non-binary, Indigenous, or cultural gender n=70 Mean (SD)	P-value ^a
Age first started sex work					
Age	23.14 (6.65)	26.55 (10.32)	18.72 (5.92)	21.78 (5.50)	0.010
	%	%	%	%	
Types of sex work (past year) ^b					
Escorting	44	57	49	33	0.152
Camming	37	36	49	35	0.820
Sugar baby	32	26	34	36	0.757
Domme-ing	28	30	0	31	0.345
Porn	27	26	17	28	1.000
Subbing	25	19	32	28	0.661
Massage	17	20	17	14	0.787
Modelling	16	13	32	16	0.510
Phone sex	13	10	16	14	0.775
Street-based	8	17	16	0	0.012
Dancing	5	10	0	2	0.496
Other(s)	5	3	19	5	0.376
Reasons for starting sex work ^b					
Necessary for living expenses	54	58	17	57	0.208
Lack of jobs/income	48	32	65	57	0.079
To feel attractive	48	38	65	52	0.378
Good pay	39	36	34	41	0.935
To affirm gender identity	22	31	0	19	0.198
Suggested by friend or lover	23	32	17	17	0.302
Community	17	14	16	19	0.896
Felt forced or pressured	14	14	16	14	1.000
Learned from those around me	14	28	0	7	0.029
Necessary for gender-affirming medical care expenses	12	14	32	7	0.129
Other(s)	15	14	19	15	1.000

a Values <0.0500 indicate that differences between gender groups are statistically significant.

b Participants could select more than one option, so total will be more than 100%.

Table 5: Support and safety

Sex workers
n=133
%

Primary health care provider's support for your sex work ^a

Very or somewhat supportive	11
Not very supportive	3
Not at all supportive	0
They don't know	86

Spouse or partner's support for your sex work ^b

Very or somewhat supportive	76
Not very supportive	4
Not at all supportive	4
They don't know	16

Your child(ren)'s support for your sex work ^c

Very or somewhat supportive	9
Not very supportive	0
Not at all supportive	0
They don't know	91

Works with clients in-person

Has in-person clients	62
Does not have in-person clients	38

Perceived safety when negotiating rates ^d

Very or mostly safe	44
Neither safe nor unsafe	25
Somewhat unsafe	25
Very unsafe	6

Perceived safety when negotiating condom use ^e

Very or mostly safe	38
Neither safe nor unsafe	25
Somewhat unsafe	30
Very unsafe	6

Condomless sex with regular or casual partner(s) (past year) ^f

Had condomless sex	61
No condomless sex	39

Condomless sex with client(s) (past year) ^f

Had condomless sex	32
No condomless sex	68

a Among those who have a primary care provider (n=73).

b Among those who have a spouse or partner (n=50).

c Among those who have a child or children (n=11).

d Among those working with in-person clients who negotiate rates (n=32).

e Among those working with in-person clients who negotiate condom use (n=29).

f Among those working with in-person clients (n=48).

other STIs. They were also more likely to have ever used pre-exposure prophylaxis (PrEP) for HIV prevention (14% vs. 2%).

Sex workers tended to report poorer physical and mental health, including fair or poor self-rated mental health (72% vs. 54%) and past year suicide attempts (10% vs. 5%), than non-sex workers. These differences should be understood in the context of lower well-being experienced by sex workers, including higher levels of violence and harassment: sex workers reported about double the proportions of physical (29% vs. 15%) and sexual assault (52% vs. 24%) reported by non-sex workers. Housing (19% vs. 9%) and food insecurity (32% vs. 14%) were also more common among sex workers.

Sex Work Experiences

Table 4 focuses on participants' experiences doing sex work, stratified by gender group (women, men, and non-binary genders). On average, participants started doing sex work at the age of 23. In the past year, participants had engaged in many types of sex work with the most common roles being escorting (44%) and camming (37%). Types of sex work did not differ by gender with the exception of street-based work, which only trans women and men reported. The most commonly reported reasons for starting sex work were to cover necessary living expenses (54%), lack of jobs/income (48%), and to feel attractive (48%).

Table 5 describes the support and safety available to sex workers. Most (86%) had not told their primary care provider about their work. Of sex workers with partners, most were supportive or very supportive of their work (76%). Among sex workers with in-person clients (62%), less than half said they felt very or mostly safe negotiating rates (44%) or condom use (38%) and 32% reported condomless sex with a client(s).

Table 6: Lifetime experiences of discrimination ^a

	Lifetime-Sex workers n=337 %	Non-sex workers n=1736 %	P-value ^b
Refused care by health care provider			<0.0001
Yes	39	21	
No	61	79	
Fired, dismissed, or turned down for a job			<0.0001
Yes	55	24	
No	45	76	
Evicted or denied housing			<0.0001
Yes	23	8	
No	77	92	
Unreasonably stopped and questioned, searched, or arrested by police or security			<0.0001
Yes	43	16	
No	57	84	
Unable to open bank account, cash a cheque, or get a loan			<0.0001
Yes	20	5	
No	80	95	
Unreasonably expelled or suspended from school			<0.0001
Yes	11	5	
No	89	95	

a Experiences happened “because of who you are,” including how you describe yourself and how others might describe you. For example, skin colour, ancestry, nationality, religion, gender identity, sexuality, age, weight, disability or mental health issue, income, or source of income.

b Values <0.0500 indicate that differences between groups are statistically significant.

Discrimination and Access to Justice

Lifetime experiences of discrimination among sex workers and non-sex workers are shown in Table 6. When asked about discrimination “because of who you are,” sex workers consistently reported much higher levels than non-sex workers, including denial

Table 7: Interaction with and avoidance of legal and emergency response systems

	Sex workers n=133 %	Non-sex workers n=2236 %	P-value ^a
Worried about being stopped or harassed by police or security ^b			
Agree	84	69	0.015
Neutral	8	14	
Disagree	8	17	
Avoided calling 911 for police services (past 5 years)			
Yes	48	22	<0.0001
No	16	23	
Has not needed police services	35	55	
Anticipated fair treatment from police & legal system if physically assaulted			
Yes	13	33	0.0004
No	87	67	
Anticipated fair treatment from police & legal system if sexually assaulted			
Yes	4	19	0.001
No	96	81	

a Values <0.0500 indicate that differences between groups are statistically significant.

b Experiences happened “because of who you are,” including how you describe yourself and how others might describe you. For example, skin colour, ancestry, nationality, religion, gender identity, sexuality, age, weight, disability or mental health issue, income, or source of income.

of health care (39% vs. 21%), employment discrimination (55% vs. 24%), and discriminatory treatment by police (43% vs. 16%). Table 7 describes interaction with and avoidance of legal and emergency response systems. The results demonstrate substantial mistrust of police and emergency response. 84% of sex workers were worried about being stopped or harassed by police or security. Over the past five years, almost half (48%) of sex workers had avoided calling 911 for police services when they might be required, as compared to 22% among non-sex workers. Relatedly, the vast majority (87-96%) of sex workers did not anticipate fair treatment from police and the legal system if physically or sexually assaulted.

Conclusion

About 5% of Trans PULSE Canada participants were current sex workers. Participants of all genders, including non-binary people and trans men, did a variety of types of sex work. Overall, this group experienced higher levels of poverty, disability, poor self-rated health, discrimination and violence as compared to trans and non-binary people who were not sex workers. Although Canada's current sex work laws purport to target clients rather than sex workers themselves, we found that most trans and non-binary sex workers surveyed were worried about being stopped or harassed by police or security. Trans and non-binary sex workers who are Indigenous, Black, racialized, and/or immigrants to Canada may be disproportionately or differently impacted. Future research (including qualitative studies or quantitative studies with larger samples) should take an intersectional approach to the health and well-being of trans and non-binary sex workers in Canada.

These findings have implications for practices and policies impacting trans and non-binary sex workers. For example, sex workers reported more health care barriers than other trans and non-binary people and most had not told their health care provider about their work. This indicates that efforts are needed to reduce sex work stigma in healthcare settings; even providers who are trans-affirming may not be sex work-affirming. Sex workers reported limited safety to negotiate the conditions of their work, high levels of experienced and anticipated discrimination and violence, and a lack of access to justice. Human rights and labour protections for sex workers, including full decriminalization of sex work, are needed and the unique experiences of trans and non-binary sex workers should be centered in discussions of sex work law and policy in Canada.

Acknowledgments

The Trans PULSE Canada team includes 109 people who have contributed in different ways to the project. We would like to acknowledge the valuable contributions of the following people, and 36 additional individuals: Aaron Devor, Adrian Edgar, Alisa Grigorovich, Alyx MacAdams, Ander Swift, Angel Glady, Anna Martha Vaites Fontanari, Asha Jibril, Ayden Scheim, Bretton Fosbrook, Caiden Chih, Callie Lugosi, Carol Lopez, Charlie Davis, Connie Merasty, Dominic Beaulieu-Prévost, Drew Burchell, Elie Darling, Emily Nunez, Eva Legare-Tremblay, Fae Johnstone, Fin Gareau, Françoise Susset, Frédéric S.E. Arps, Gioi Tran Minh, Greta Bauer, Hannah Kia, Jack Saddleback, Jacq Brasseur, Jaimie Veale, Jelena Vermilion, Jordan Zaitzow, Joseph Moore, Julie Temple-Newhook, j wallace skelton, Keegan Prempeh, Keldria Nation, Kimberly Dhaliwal, Kohenet Talia Johnson, Kusha Dadui, Kylie Brooks, Leo Rutherford, Marcella Daye, Mayuri Mahendran, Meghan Smith, Moomtaz Khattoon, M. Roberts, Naja, Nathan Lachowsky, Nik Redman, Noah Adams, Peetanacoot (Winnie) Nenakawekapo, Parker L., Rainbow Hunt, Randy Jackson, Reann Legge, Rebecca Hammond, Reece Malone, Renée Masching, Renu Shonek, Robb Travers, Rosalyn Forrester, Roxane Nadeau, Sharp Dopler, Shaz Islam, Siobhan Churchill, Skylar Sookpaiboon, Sophia Ciavarella, T.F., Todd Coleman, Tony Kourie, William Flett, and Yasmeen Persad. Thank you!

References

1. Fitzgerald E, Patterson SE, Hickey D, Biko C, & Tobin, HJ. Meaningful work: Transgender experiences in the sex trade. Washington, DC: National Center for Transgender Equality. 2015. Available from: https://www.transequality.org/sites/default/files/Meaningful%20Work-Full%20Report_FINAL_3.pdf
2. Poteat T, Wirtz AL, Radix A, Borquez A, Silva-Santisteban A, Deutsch MB, Khan SI, Winter S, Operario D. HIV risk and preventative interventions in transgender women sex workers. *The Lancet*. 2015;385(9964):274–286. Available from: [https://doi.org/10.1016/S0140-6736\(14\)60833-3](https://doi.org/10.1016/S0140-6736(14)60833-3)
3. Bauer GR, Travers R, Scanlon K, Coleman TA. High heterogeneity of HIV-related sexual risk among transgender people in Ontario, Canada: A province-wide respondent-driven sampling survey. *BMC Public Health*. 2012;12(292):1–12. Available from: <https://doi.org/10.1186/1471-2458-12-292>
4. Sausa LA, Keatley J, Operario D. Perceived risks and benefits of sex work among transgender women of color in San Francisco. *Archives of Sexual Behavior*. 2007;36(6):768–777. Available from <http://doi.org/10.1007/s10508-007-9210-3>
5. Jones A. Where the trans men and enbies at?: Cis-sexism, sexual threat, and the study of sex work. *Sociology Compass*. 2020;14(2):284–315. Available from: <http://doi.org/10.1111/soc4.12750>
6. Lyons T, Krusi A, Pierre L, Kerr T, Small W, Shannon K. Negotiating violence in the context of transphobia and criminalization: The experiences of trans sex workers in Vancouver, Canada. *Qualitative Health Research*. 2017;27(2):182–190. Available from: <https://doi.org/10.1177/1049732315613311>
7. Roche K, Keith C. How stigma affects healthcare access for transgender sex workers. *British Journal of Nursing*. 2014;23(21):1147–1152. Available from: <https://doi.org/10.12968/bjon.2014.23.21.1147>
8. Argento E, Goldenberg S, Braschel M, Machat S, Strathdee SA, Shannon K. The impact of end-demand legislation on sex workers' access to health and sex worker-led services: A community-based prospective cohort study in Canada. *PLOS ONE*. 2020;15(4):1–10. Available from <https://doi.org/10.1371/journal.pone.0225783>

Contributing Authors

Frédéric S.E. Arps, Sophia Ciavarella, Jelena Vermilion, Rebecca Hammond, Kelendria Nation, Siobhan Churchill, Meghan Smith, Jose Navarro, Prerna Thaker, Greta Bauer, Ayden Scheim

Reports, presentations, and papers can be downloaded at:

transpulsecanada.ca

For more information:

info@transpulsecanada.ca

This project is funded by the Canadian Institutes of Health Research.

