

Estimating Unmet Need for OHIP-funded Sex Reassignment Surgeries

A report prepared for the Ministry of Health and Long-term Care of Ontario



Building our communities through research

16 August, 2010

Purpose of Report

The objective of this report is to provide information from Trans PULSE Project data to inform health systems planning with regard to sex reassignment surgeries covered under the Ontario Health Insurance Program (OHIP). Hormonal care and non-listed medical procedures are thus not included, though they represent important additional components of transition-related care.

Trans PULSE Project

Data presented in this report were collected during the second phase of the Trans PULSE Project. Trans PULSE is a Canadian Institutes of Health Research-funded, community-based research project to understand and improve the health of trans people in Ontario. The Trans PULSE team is a partnership between researchers, members of the trans community and community organizations committed to improving the health of trans people.

Data and Analysis Methods

Phase II of Trans PULSE consisted of a multi-mode survey (via web, paper, or telephone) that included items on a wide range of health-related measures. Data were gathered on trans people age 16 and over who lived, worked, or received health care in Ontario. To participate, individuals indicated that they fit under the broad umbrella term of “trans”, were not limited to particular identities, and were not required to have begun or completed a social or medical gender transition.

From May, 2009 to April, 2010, 433 participants were recruited through respondent-driven sampling (RDS).¹ RDS is a chain-referral sampling method designed to limit bias in studies of hidden populations, those from which a random sample cannot be obtained. Each participant could recruit

up to 3 additional participants. Recruitment patterns and individual network sizes were tracked, and these data were used to weight all statistics based on each participant’s probability of recruitment. Statistics presented are thus population estimates for networked trans people in Ontario (i.e. those who know at least one other trans person).

All analyses were conducted using RDSAT 6.0.1.² 95% confidence intervals were calculated using a modified form of bootstrapping, with resampling based on recruitment network patterns.³ Confidence intervals represent the range of plausible population estimates that are consistent with our data.

Results

Table 1. Region of residence

Region	Postal Codes Starting with	%	95% CI ^a
Northern Ontario	P	8.5	(3.0, 16.0)
Eastern Ontario ^b	J, K	14.7	(7.2, 24.5)
Central Ontario	L	16.9	(10.7, 24.7)
Metropolitan Toronto	M	32.5	(21.3, 42.1)
Southwestern Ontario	N	27.3	(16.8, 38.7)

a CI = confidence interval

b Included several who lived in Quebec, but worked or received health care in Ontario

Table 2. Gender spectrum

	%	95% CI ^a
Male-to-female or transfeminine spectrum	46.5	(37.8, 55.1)
Female-to-male or transmasculine spectrum	53.5	(44.9, 62.2)

a CI = confidence interval

Tables 1 and 2 describe the distribution of Ontario’s trans population by geographic region of residence and by gender spectrum. The trans population was equally split between female-to-male (FTM) and male-to-female (MTF) spectrum individuals. Trans people resided in all regions of the province, with approximately one third in Metropolitan Toronto and two thirds distributed throughout the remainder of the province.

The medical transition status of trans Ontarians is detailed in Table 3. Note that medical transition status for this table was not limited to OHIP-funded procedures, but included any type of hormonal or surgical transition-related care.

Table 3. Transition status with regard to hormonal and surgical treatment ^a

	%	95% CI ^b
Completed medical transition	25.0	(17.4, 31.6)
In process of medical transition	24.0	(18.8, 30.9)
Planning to transition, but not begun	27.8	(20.9, 35.0)
Not planning to medically transition	4.2	(1.4, 8.3)
Concept of “transition” does not apply	9.2	(5.0, 16.5)
Not sure	9.8	(5.0, 12.8)

^a Survey item was not limited to OHIP-funded surgeries, and may include other surgeries such as breast implantation, or facial feminization surgeries
^b CI = confidence interval

Trans Ontarians were almost evenly split with regard to transition status, with about one-fourth having completed a medical transition (which varied in terms of procedures included based on individual need), one-fourth indicating they were in the process of medically transitioning, one-fourth planning a transition that had not yet begun, and one-fourth not planning, not sure, or indicating that transition was a concept that did not apply to them.

Table 4 includes the estimated proportions of trans people in Ontario who have completed all OHIP-funded

Table 4. Need for OHIP-funded sex reassignment surgeries

	%	95% CI ^a
Completed all needed surgeries	17.4	(11.1, 23.5)
Surgery needed, including vaginoplasty	19.2	(12.4, 25.4)
Surgery needed, including phalloplasty	5.8	(2.7, 10.6)
Surgery needed, including metoidioplasty	7.1	(4.1, 10.6)
Surgery needed, other ^b	21.6	(15.6, 29.3)
No surgery needed	28.9	(21.3, 37.0)

^a CI = confidence interval
^b Other surgeries needed include orchiectomy, hysterectomy, oophorectomy, urethral lengthening, testicular implants, or mastectomy with chest reconstruction

surgeries needed, report they need these surgeries, or who have not had and do not need any OHIP-funded surgeries. Those who report needing OHIP-funded surgeries are categorized based on whether surgeries needed included vaginoplasty, phalloplasty, metoidioplasty, or only other surgeries, as an assessment is required for OHIP approval for genital sex reassignment surgeries.

An estimated 28.9% of Ontario trans people had no need for transition-related surgeries and an additional 17.4% had completed all surgeries needed. 32.1% needed surgeries including genital sex reassignment surgeries, and 21.6% needed surgeries such as orchiectomy, hysterectomy, or mastectomy and chest reconstruction, but not genital sex reassignment.

For comparability with data from other research on trans populations, Tables 5 and 6 present data limited to those who have medically transitioned, are in process, or are planning to medically transition through hormones or surgery (transitioners). Transitioners represent approximately three-fourths of Ontario’s trans population.

A detailed breakdown by specific type of OHIP-funded surgery is provided for trans women (Table 5) and trans men (Table 6). Note that confidence intervals are wide, as data are broken down by gender spectrum and restricted to the subset of transitioners, with smaller sample sizes limiting statistical power and precision.

Table 5. Surgical status of trans women (male-to-female) who have transitioned, are in the process of transitioning, or are seeking to transition medically through hormones or surgery ^a

	%	95% CI ^b
Orchiectomy		
Completed	26.6	(12.7, 42.5)
Needed	56.6	(35.5, 73.4)
Not needed or unsure	16.8	(9.5, 25.1)
Vaginoplasty		
Completed	19.3	(8.9, 35.6)
Needed	53.4	(33.6, 69.8)
Not needed or unsure	27.3	(16.1, 38.8)

^a OHIP-funded surgeries only
^b CI = confidence interval

Of male-to-female transitioners, approximately 1 in 4 had received an orchiectomy and 1 in 5 a vaginoplasty. Orchiectomies included those performed as part of a vaginoplasty procedure, as well as those performed separately. Approximately half of MTF transitioners reported needing, but not yet having received, orchiectomy and vaginoplasty.

Table 6. Surgical status of trans men (female-to-male) who have transitioned, are in the process of transitioning, or are seeking to transition medically through hormones or surgery

	%	95% CI ^b
Mastectomy and chest reconstruction		
Completed	29.6	(17.6, 44.8)
Needed	61.0	(44.1, 77.0)
Not needed or unsure	9.4	(3.1, 16.4)
Hysterectomy		
Completed	14.9	(7.4, 23.9)
Needed	38.1	(26.2, 55.5)
Not needed or unsure	47.0	(30.7, 62.5)
Oophorectomy		
Completed	14.5	(7.2, 24.2)
Needed	32.7	(22.6, 48.3)
Not needed or unsure	52.8	(35.1, 62.7)
Metoidioplasty		
Completed	c	c
Needed	18.9	(11.5, 27.2)
Not needed or unsure	81.1	(65.9, 100.0)
Urethral lengthening		
Completed	0.9	(0.0, 2.9)
Needed	20.3	(11.6, 29.0)
Not needed or unsure	78.8	(62.5, 99.1)
Testicular implants		
Completed	0.9	(0.0, 3.2)
Needed	27.0	(15.9, 38.1)
Not needed or unsure	72.1	(56.7, 93.7)
Phalloplasty		
Completed	0.4	(0.0, 1.1)
Needed	13.2	(5.6, 21.7)
Not needed or unsure	86.3	(69.3, 100.0)

a OHIP-funded surgeries only

b CI = confidence interval

c Unable to calculate due to high homophily. 2% of FTM participants who had transitioned, were in process, or were planning to medically transition had completed a metoidioplasty procedure.

References

1. Heckathorn DD. Respondent-driven sampling II: Deriving valid population estimates from chain-referral samples of hidden populations. *Social Problems* 2002;49(1):11-34.
2. Volz E, Wejnert C, Degani I, Heckathorn DD. Respondent-Driven Sampling Analysis Tool (RDSAT) Version 6.0.1. Ithaca, NY: Cornell University.
3. Salganik MJ. Variance estimation, design effects, and sample size calculations for respondent-driven sampling. *Journal of Urban Health* 2006;83(6 Suppl):i98-i112.
4. Bakker A, van Kesteren PJ, Gooren LJ, Bezemer PD. The prevalence of transsexualism in the Netherlands. *Acta Psychiatrica Scandinavica* 1993;87(4):237-238.

Among FTM transitioners, chest surgery was the most common completed surgery, followed by hysterectomy and oophorectomy. Need for these procedures was also greatest. Few FTM transitioners had undergone genital sex reassignment surgeries; while the majority did not feel they needed these surgeries, a substantial minority reported that they did.

Temporal Trends

These data represent the first such estimates of their kind in Ontario. As such, it is not possible to know how these figures have changed over time or to predict how they will change in the future. However, given the 10-year period from 1998 to 2008 in which sex reassignment procedures were delisted in Ontario, it is likely that a backlog exists, and that unmet need for surgeries will decrease as access to these procedures increases. It should be noted that even during the period of delisting, some of these procedures were covered by OHIP for other indications (e.g. hysterectomy for trans men with a diagnosis of fibroids or endometriosis).

Application to Population Estimates

The number of trans people requiring medical care for transition-related purposes in Ontario is unknown. Commonly cited estimates from the Netherlands are that for those over age 15, 1 in 11,900 people identified as male at birth is a male-to-female transsexual receiving or having received transition-related medical care, and that 1 in 30,400 people identified as female at birth is a female-to-male transsexual receiving medical care.⁴ To apply these estimates to Ontario requires a number of assumptions, predominantly: 1) that the frequency of medical transitioning in the Netherlands is similar to Ontario, and; 2) that this has not changed in the 20 years since data were collected for this study. It is clear based on patient loads at Ontario clinics that the total number of trans people in Ontario exceeds these estimates, though some of these are non-transitioners. Based on data in Table 3, about half of Ontario's trans population has begun or completed transition-related medical care, and the remainder is split between those planning a medical transition and those who do not intend to transition or for whom transitioning is not relevant.

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Trans PULSE is funded by



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