Access to immediate breast reconstruction during breast cancer treatment: A population-based study

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BACKGROUND

- There has been an **effort to increase access to immediate breast reconstruction (IBR)** for breast cancer (BC) in Ontario, Canada over the past decade.
- Despite this, **patients from equity-deserving groups** such as those who are racialized, living in rural areas, or from a low socioeconomic status are less likely to receive IBR.

OBJECTIVE

To explore **temporal trends, regional variations, & socioeconomic variables** among patients with BC undergoing mastectomy with or without IBR in Ontario.

METHODS

Ontario population data (IC/ES)

n= 34,126

Identified **21,933 patients with BC** who underwent mastectomy

(Jan 2018 – July 2023)

IBR

- Monthly IBR rate
- Odds of receiving IBR analyzed via multivariable logistic regression (adjusted for region + SES)

Mastectomy Only

RESULTS

Sociodemographic Characteristics	IBR	Mastectomy Only	Interpretation
	26.3% (n=5,758)	**73.7%** (n=16,175)	***1 in 4*** patients received IBR
Mean Age (years)	**52.75** ± 11.96	**63.64** ± 13.96	Patients undergoing IBR were significantly ***younger*** (p<.001)
Rural Residence	**6.8%**	**11.7%**	Patients living in ***rural*** areas were *less likely* to receive IBR (p<.001)
Time Since Immigration	≤5 yrs: **2.2%** >10 yrs: **16.6%**	≤5 yrs: 1.8% >10 yrs: 15.2%	No significant difference by time since immigration
Material Deprivation	Q1: **30.0%** Q5: **12.5%**	Q1: 20.6% Q5: 18.0%	IBR more common in ***wealthier*** (Q1) groups (p<.001)
Region	High: **Toronto 25.3%** Low: **North West 1.2%**	Toronto: 15.8% North West: 1.5%	Wide regional variation (p<.001)

Figure 1. Ontario Health (OH) regions

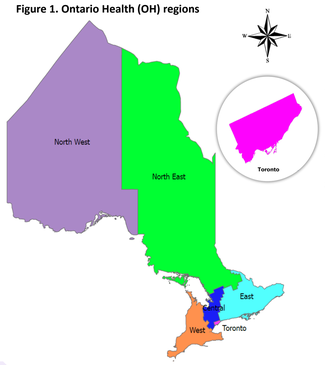
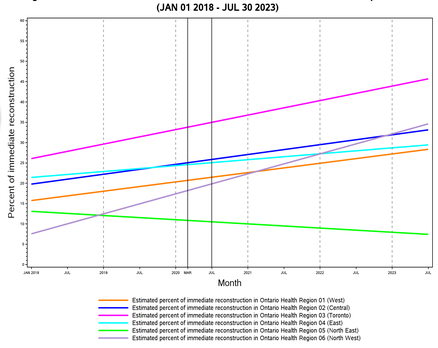


Figure 2 - Percent of immediate reconstruction in cancer related mastectomies per month (JAN 01 2018 - JUL 30 2023)



Factors associated with IBR

- **Older patients were less likely to undergo IBR** **aOR 0.52** (95% CI: 0.51–0.54)
- **Toronto had the highest rate of IBR** **aOR 0.22** (95% CI 0.18 – 0.28)
- **Immigrants were less likely to undergo IBR** **aOR 0.70** (95% CI 0.65 -0.77)
- **Patients in wealthier areas were more likely to undergo IBR** **aOR 2.16** (1.94–2.42)
- **Patients who received neoadjuvant chemo were less likely to undergo IBR** **aOR 0.54** (0.50–0.58)
- **Patients with frequent hospital visits (non cancer related) were less likely to undergo IBR** **aOR 0.42** (0.32–0.56)

CONCLUSION

Despite universal healthcare, access to immediate breast reconstruction in Ontario remains inequitable, with significant disparities based on **region**, **income level**, and **immigration status**.

Contact Information

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