The Impact Of COVID-19 on the Surgical Treatment Of Breast Cancer (TICTOC): A Population-based Analysis

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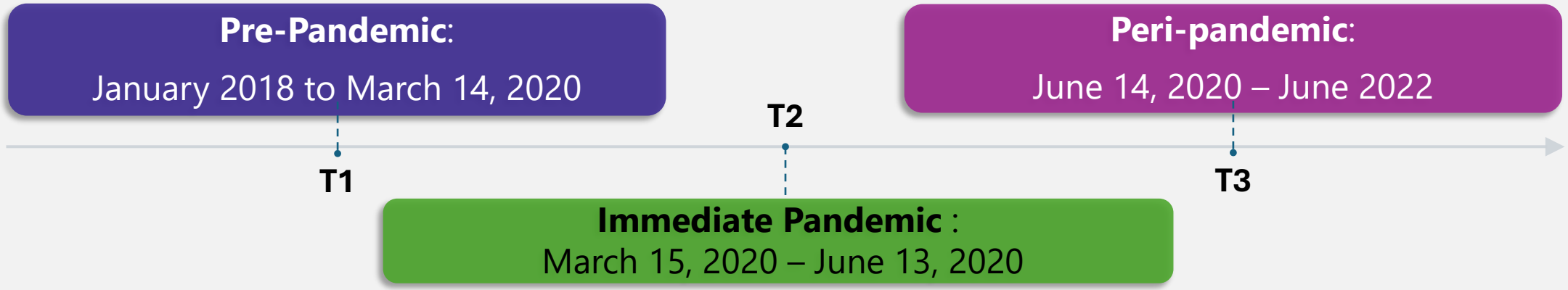
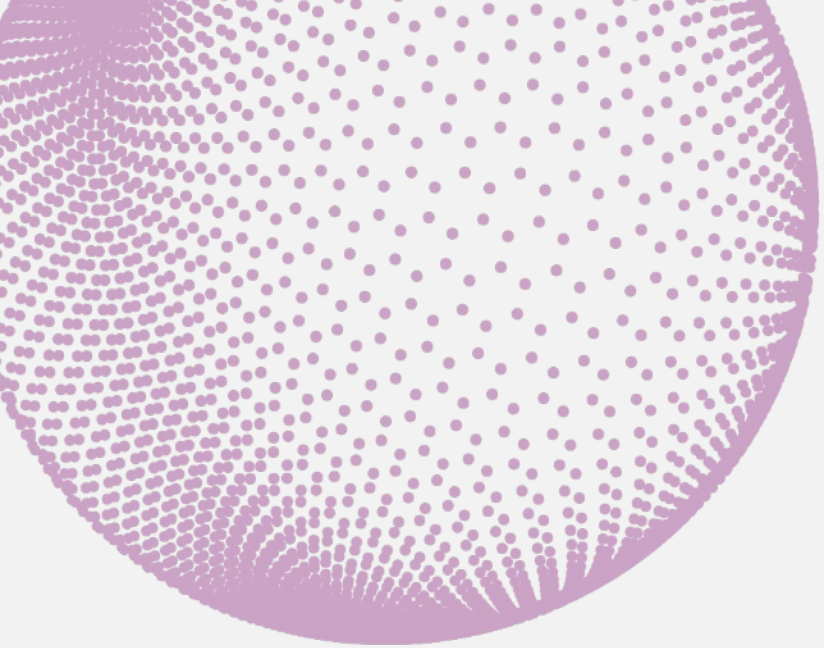
0.9%
Sodium Chloride

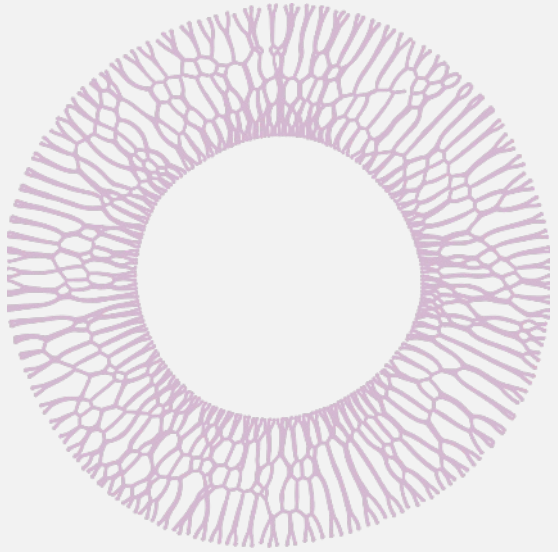
METHODS

- Retrospective population-based cohort study using data linked from IC/ES in Ontario
- BC surgeries were analyzed from January 2018 to June 2022 in Ontario
- The weekly surgical volume and types of BC surgeries were compared across three periods

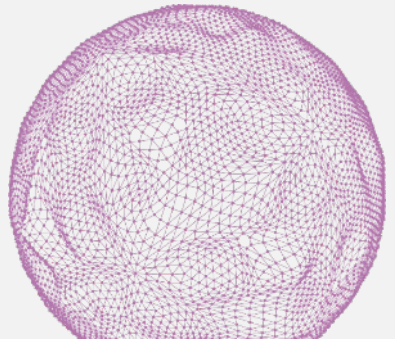


- Segmented negative binomial regression models were used to quantify the weekly surgical volume trend within each period and the change in mean volume between time periods.





RESULTS



STUDY COHORT

The study cohort consisted of 50,440 surgeries performed on

44,226 patients with BC from Jan 2018 – June 2022

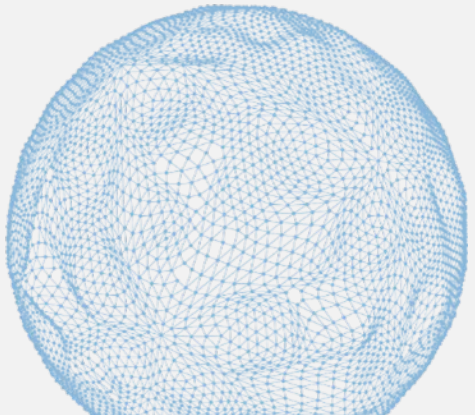
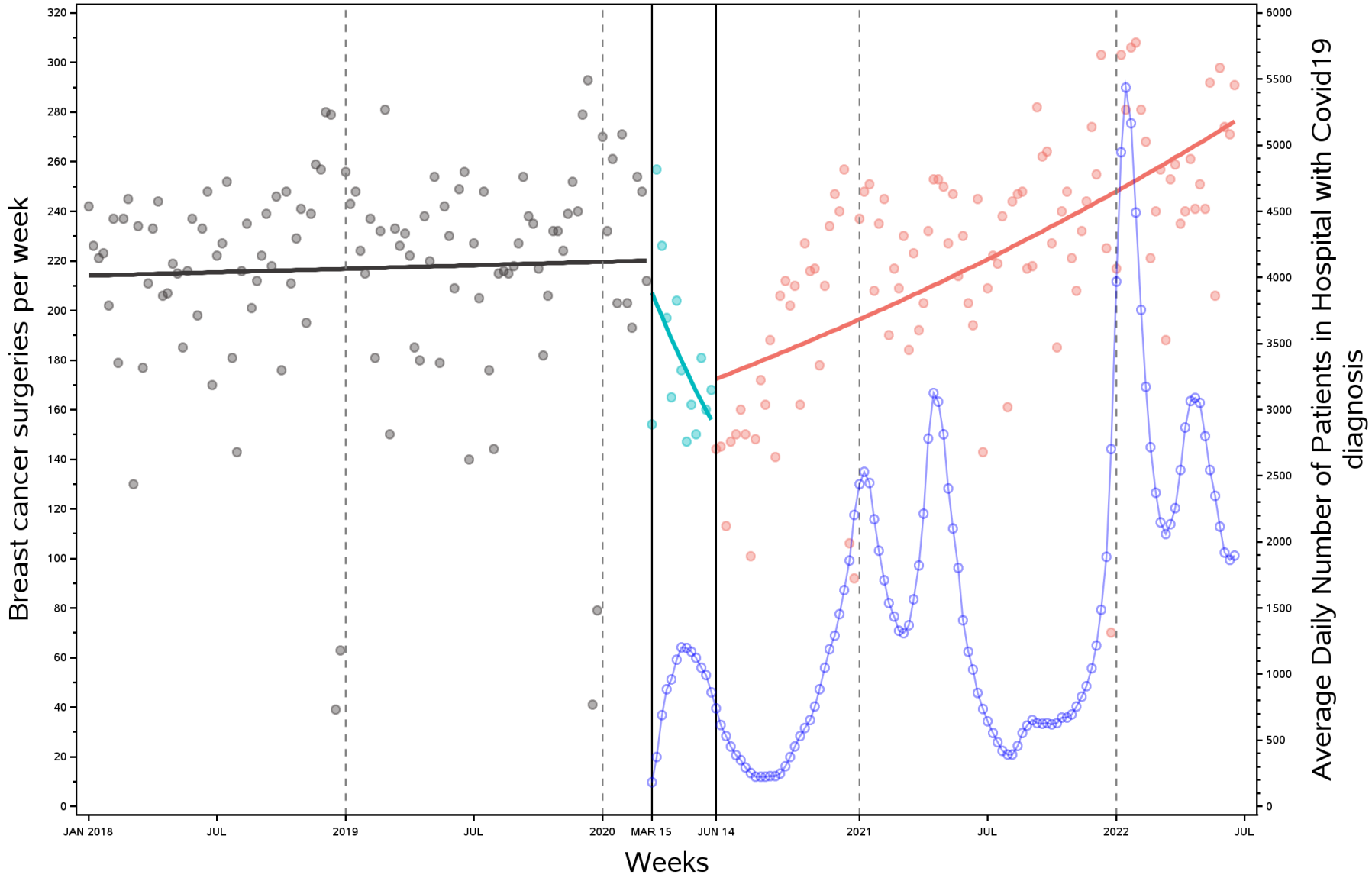


Figure 1 - Weekly Breast Cancer Surgeries (JAN 07 2018 - JUN 25 2022)



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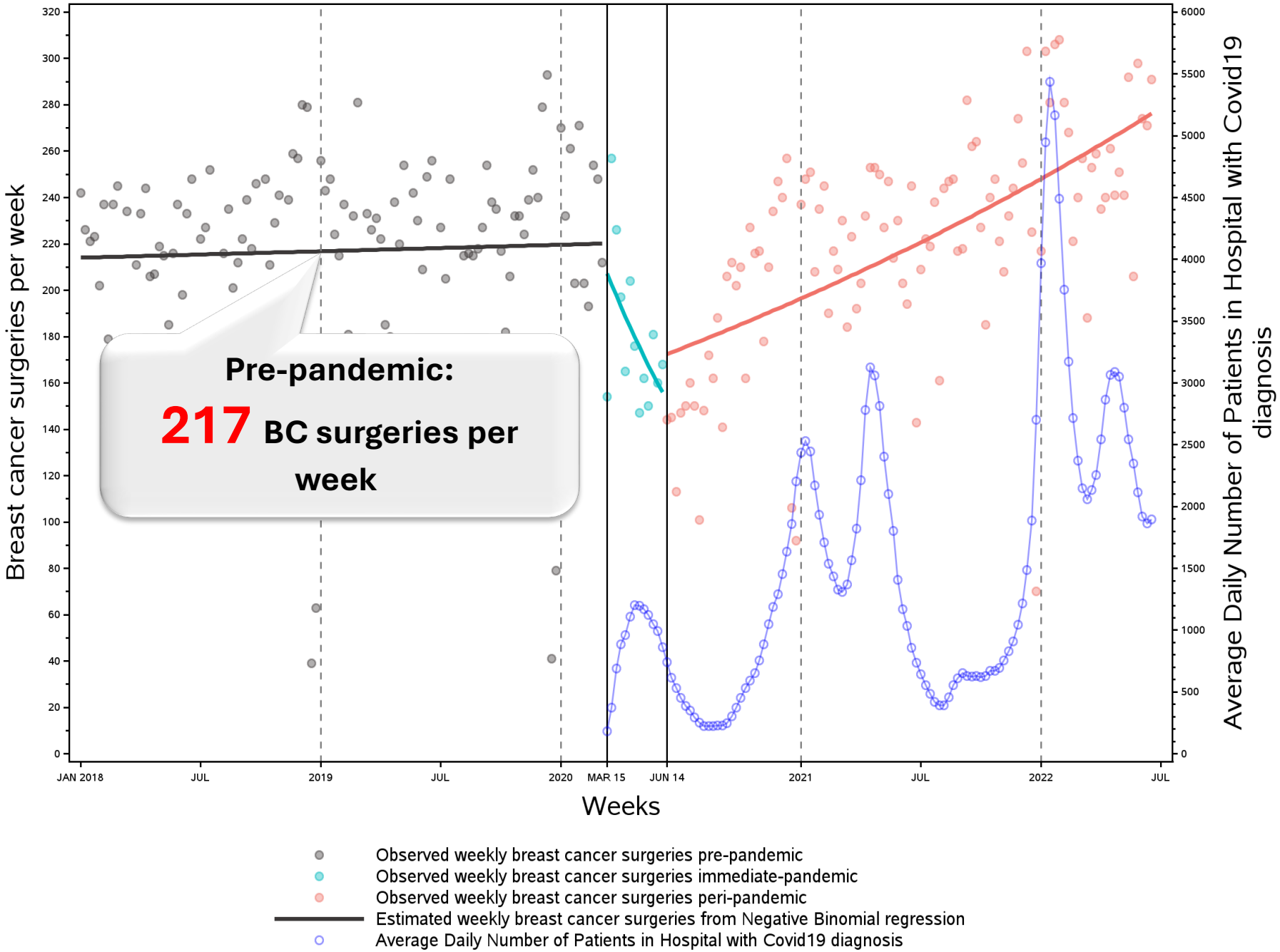

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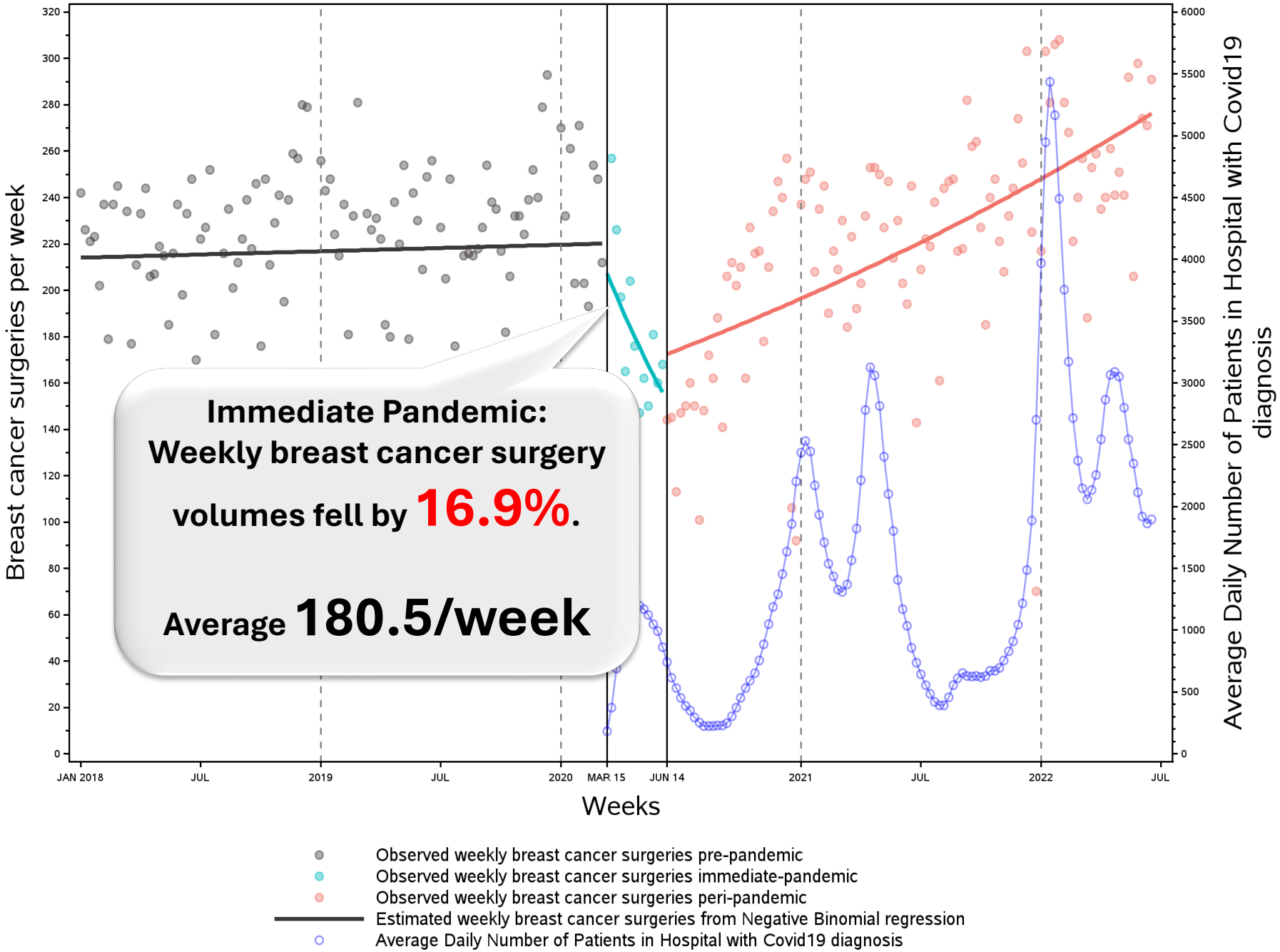

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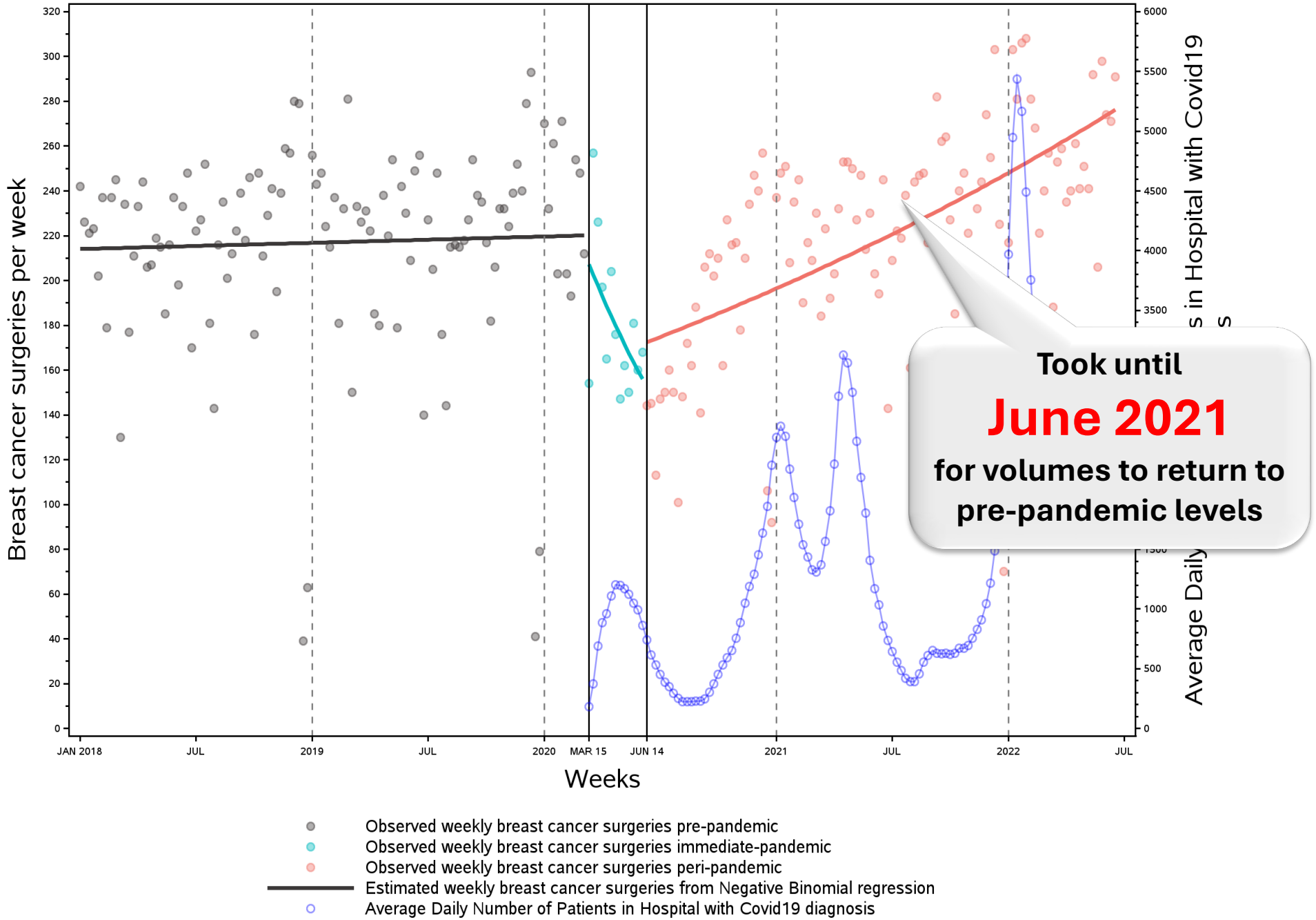

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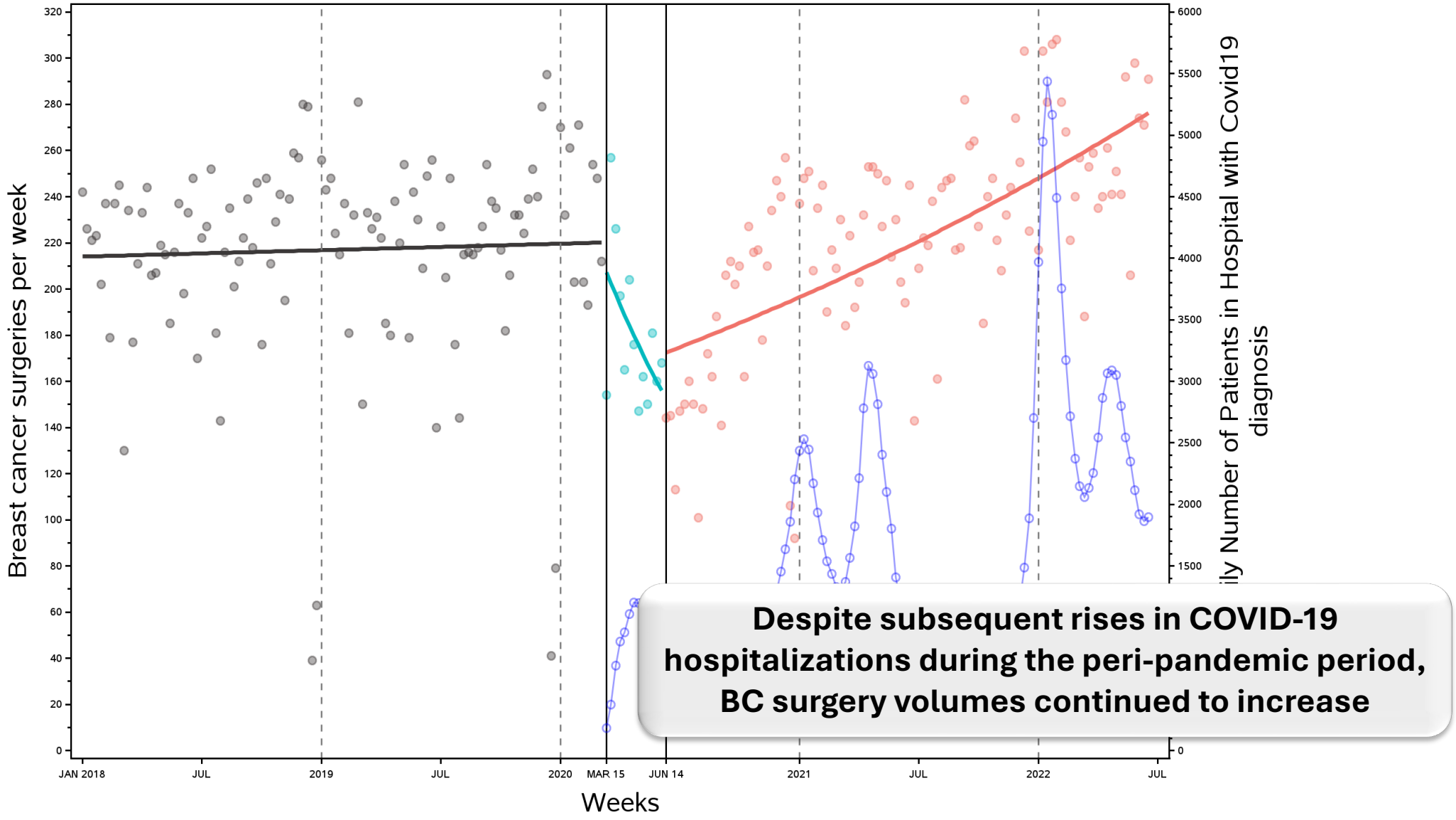
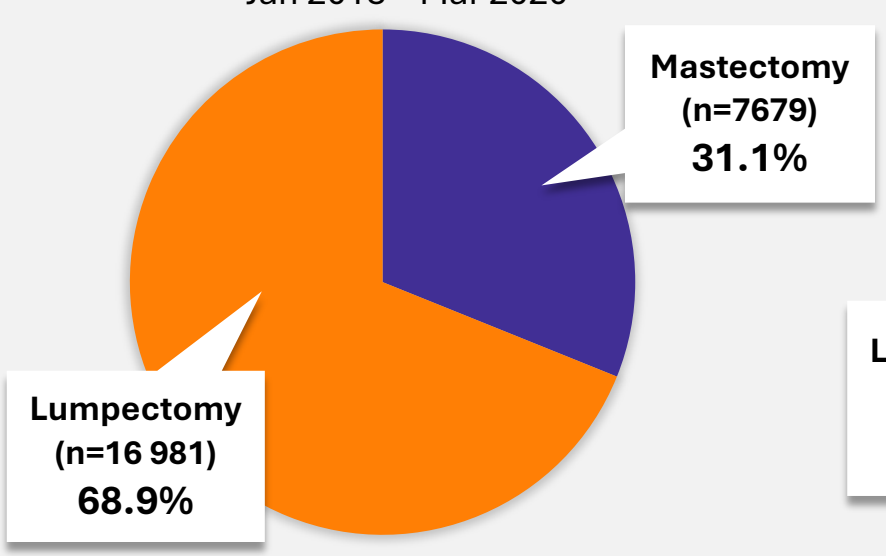


Proportion and Volume of Mastectomies & Lumpectomies

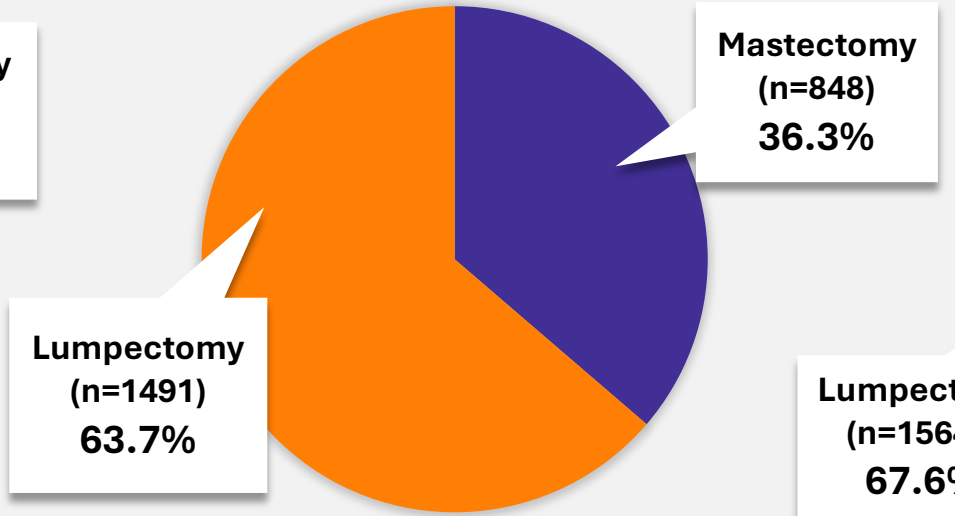
PRE-PANDEMIC (n= 24,660)

Jan 2018 – Mar 2020



IMMEDIATE PANDEMIC (n= 2,339)

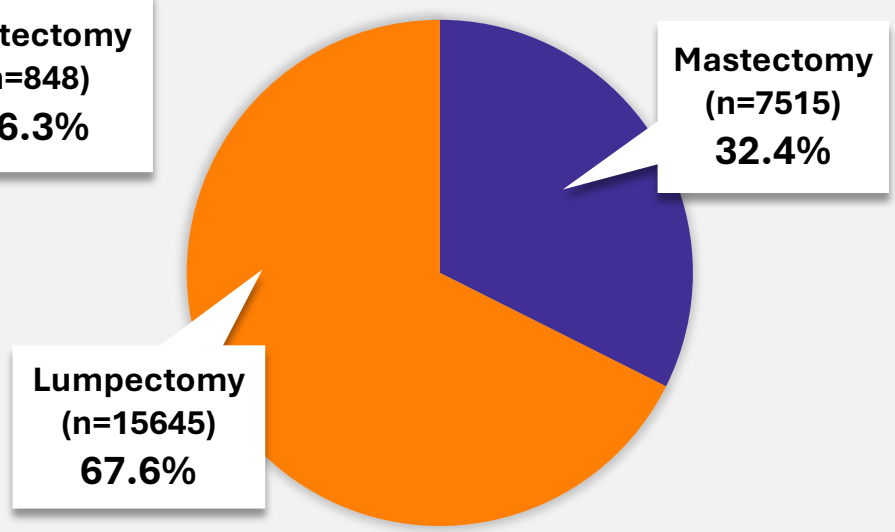
Mar 2020 – Jun 2020



compared to pre-pandemic,
p<0.001

PERI- PANDEMIC (n= 23,160)

Jun 2020 – Jun 2022

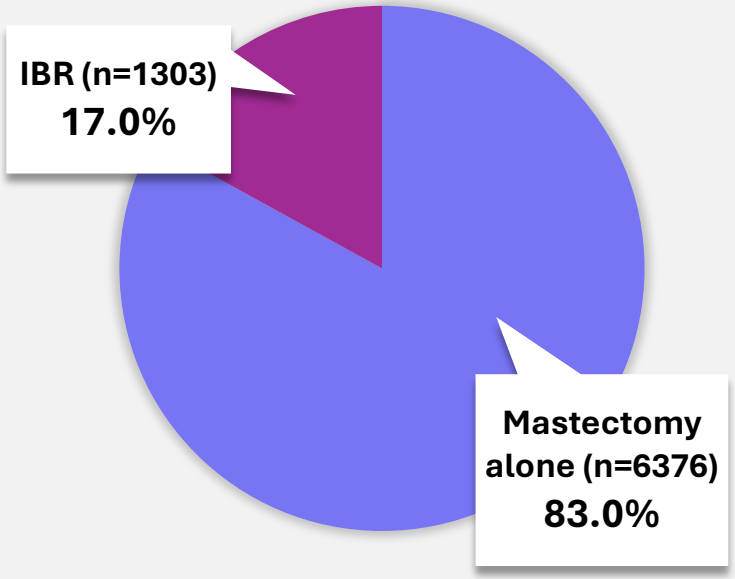


compared to pre-pandemic,
p= 0.002

Proportion and Volume of Mastectomies with & without Immediate Breast Reconstruction (IBR)

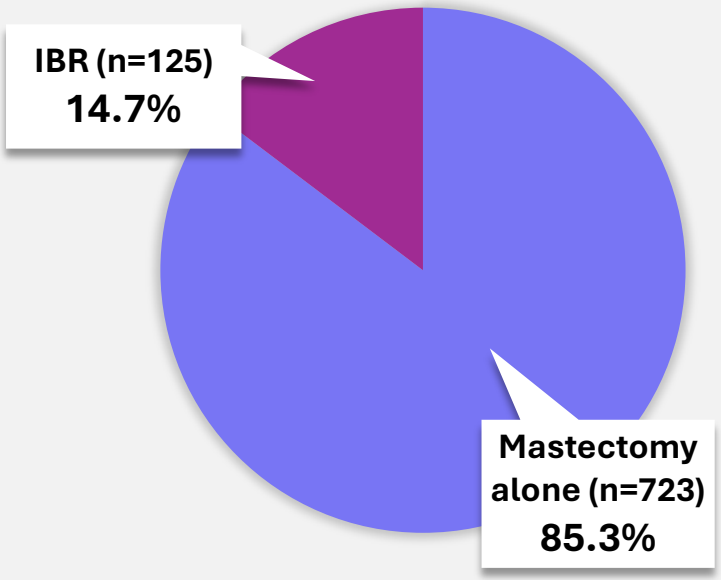
PRE-PANDEMIC (n= 7,679)

Jan 2018 – Mar 2020



IMMEDIATE PANDEMIC (n= 848)

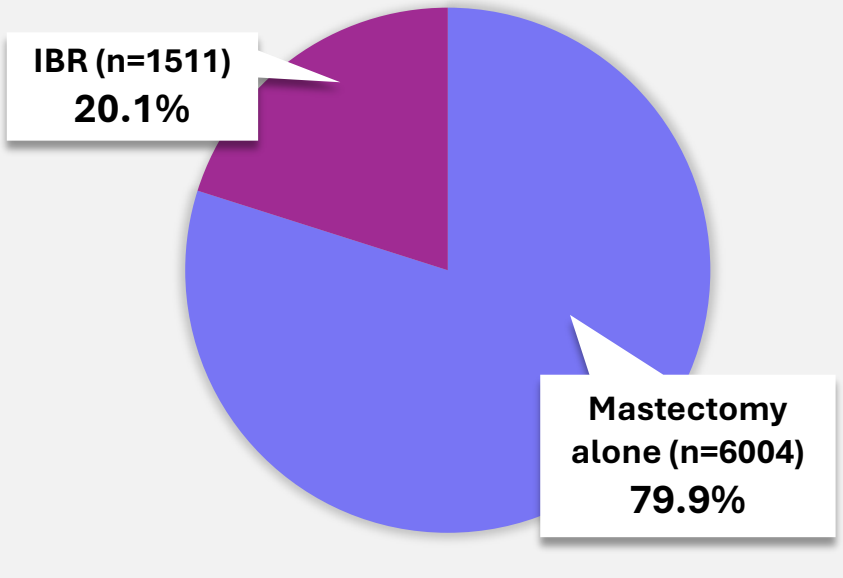
Mar 2020 – Jun 2020



compared to pre-pandemic
p = 0.099

PERI-PANDEMIC (n= 7,515)

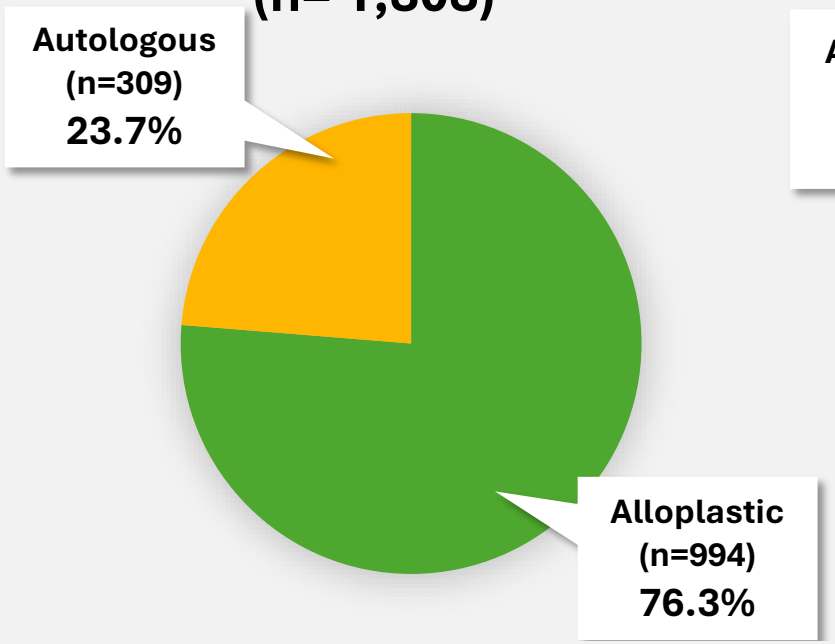
Jun 2020 – Jun 2022



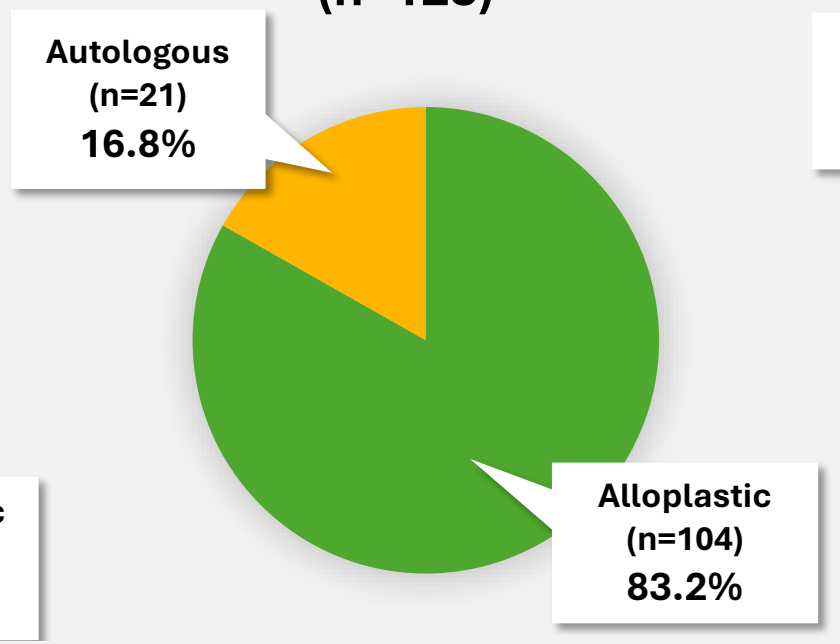
compared to pre-pandemic
p<0.001

Volumes of Different Types of Immediate Breast Reconstruction

PRE-PANDEMIC
(n= 1,303)

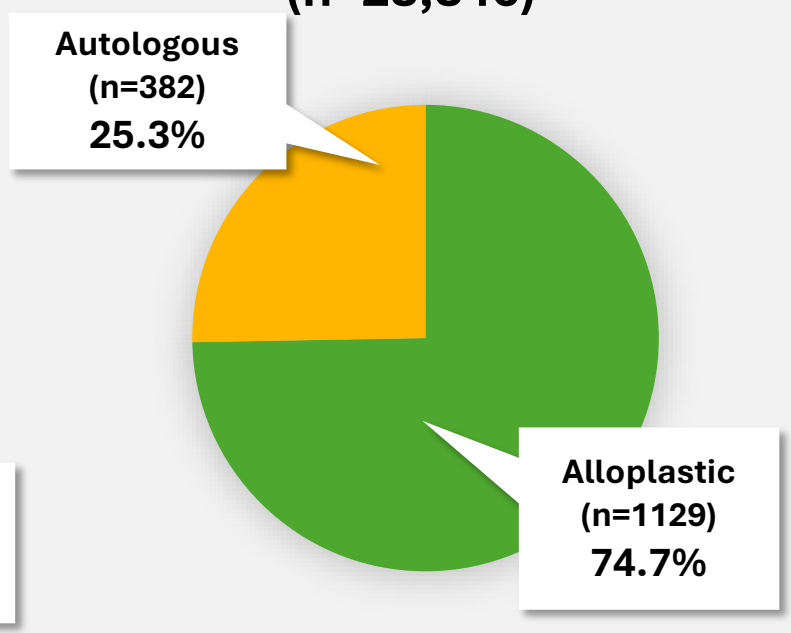


IMMEDIATE PANDEMIC
(n=125)



compared to pre-pandemic
p = 0.080

PERI-PANDEMIC
(n=23,346)

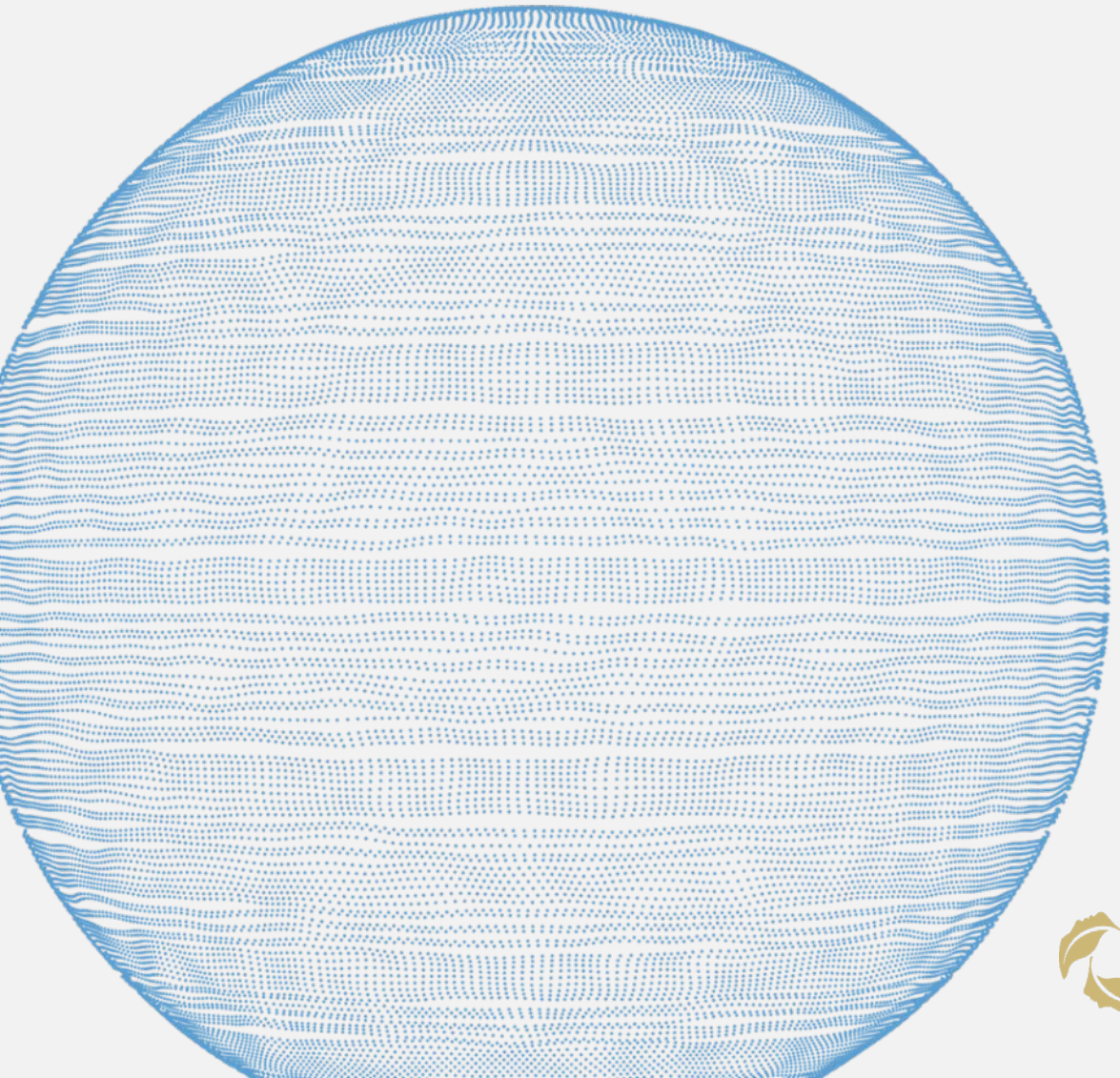


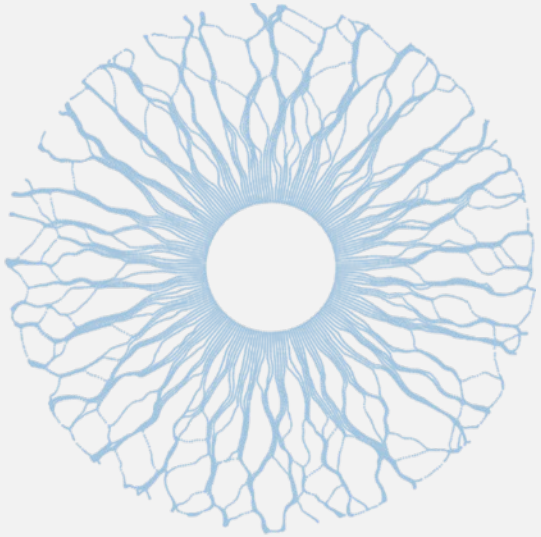
compared to pre-pandemic
p = 0.336

CONCLUSIONS

- While there was a **decrease** in breast surgery volumes during the initial COVID-19 pandemic period, the number of cases done per week actually **increased in the peri-pandemic timeframe**, despite the rise in COVID-19 hospitalizations.

- This suggests that systems adapted to evolving pandemic conditions, allowing breast cancer patients to access needed surgical therapy.





THANK YOU

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UHN
Toronto General
Toronto Western
Princess Margaret
Toronto Rehab
Michener Institute

CIHR IRSC
Canadian Institutes of Health Research
Instituts de recherche en santé du Canada

IC/ES

ADDITIONAL

VOLUMES OF DIFFERENT TYPES OF IMMEDIATE BREAST RECONSTRUCTION

	Pre-Pandemic (N= 1,303)	**Immediate Pandemic (N=125)**	**Peri-Pandemic (N=23,346)**
Alloplastic	994 (76.3%)	104 (83.2%)	1,129 (74.7%)
Autologous	309 (23.7%)	21 (16.8%)	382 (25.3%)

During the immediate pandemic there was a relative decrease in the proportion of autologous reconstruction surgeries during the immediate pandemic period (16.8%) with a subsequent increase during the peri-pandemic period (25.3%) compared to the pre-pandemic period (23.7%) ($p = 0.881$)