

Elective Surgeries Approach Pre-Pandemic Volumes

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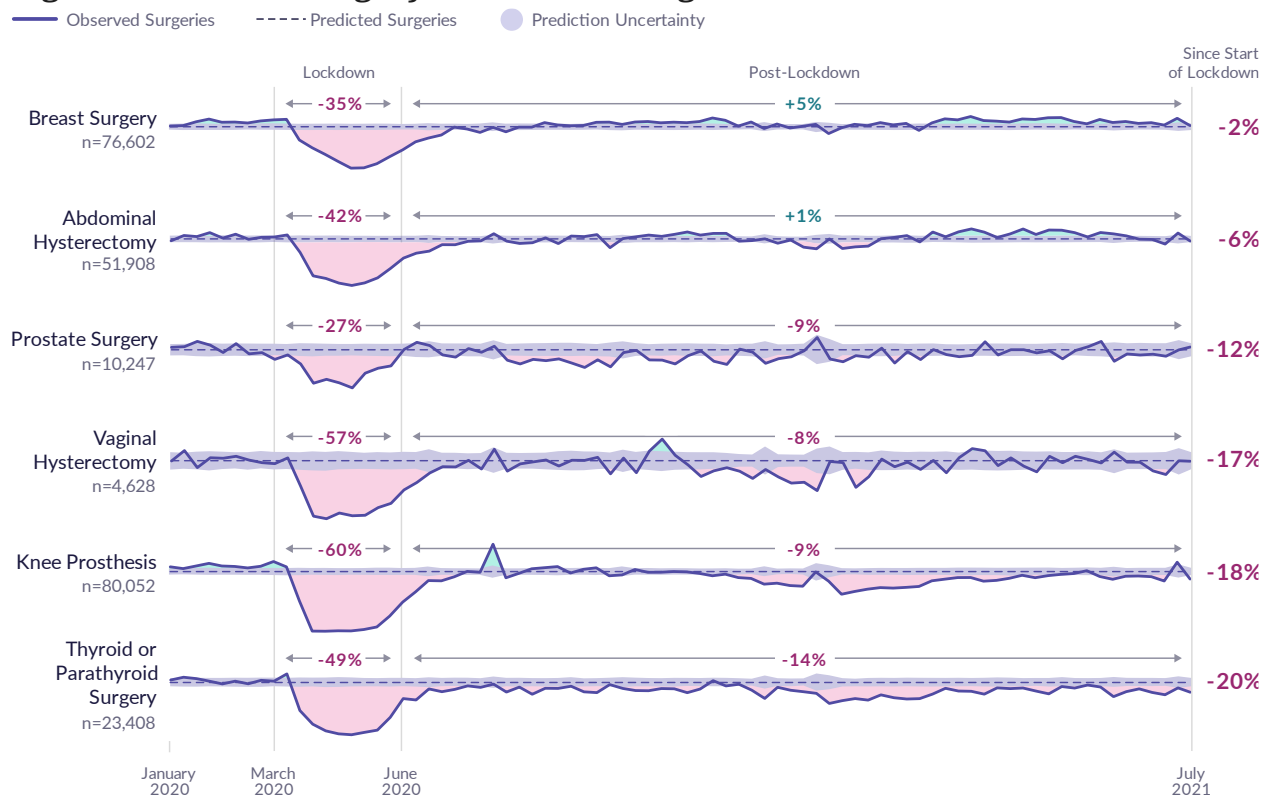
Abstract: Elective surgery volumes dropped early in the pandemic, but some procedures have returned to predicted levels.

In the early months of the pandemic, many hospitals stopped performing elective surgical procedures at the recommendation of the American College of Surgeons and the U.S. Surgeon General.¹ We investigated whether common elective surgeries have returned to expected levels.

For this study, we defined “elective” as surgical procedures that can be scheduled based on surgeon and patient convenience and are rarely (less than 2% of the time) performed as part of an emergency admission to a hospital. Using these criteria, we identified the following common surgical categories as elective: breast surgery, abdominal hysterectomy, prostate surgery, vaginal hysterectomy, knee prosthesis, and thyroid or parathyroid surgery.

Our analysis shows that the volume of elective surgeries dropped steeply at the beginning of the pandemic and then increased dramatically when states began reopening and hospitals started offering elective services again for all categories.

Figure 1: Elective Surgery Volumes During COVID-19



"Elective Surgery Volumes During COVID-19," 2021. Epic Health Research Network (EHRN.org)

Figure 1. Observed weekly elective surgery volumes by category from January 2020 to July 2021 compared to predicted volumes. Lockdown refers to the period of time when ACS and the surgeon general suggested limiting elective procedures, while post-lockdown represents the time since most organizations began performing elective surgeries.

While all categories of elective surgeries we studied were within 14% of predicted levels after lockdown lifted in June 2020, none appear to have fully made up the deficit of missed surgeries from early in the pandemic. Knee prosthesis and thyroid or parathyroid surgeries showed the lowest volumes compared to expected in the post-lockdown period, in addition to some of the largest drops in volume during the lockdown period.

These data come from Cosmos, a HIPAA-defined Limited Data Set of more than 120 million patients from 141 Epic organizations including 832 hospitals and 13,421 clinics, serving patients in all 50 states. This study was completed by two teams, each composed of a clinician and research scientists who worked independently. The two teams came to similar conclusions.

References

1. Epic Health Research Network. <https://ehrn.org/articles/non-emergency-procedure-volumes-in-the-wake-of-covid-19>. Published July 28, 2020.

Data Definitions

Term	Definition
Accompanied by emergency department services	On a documented ED visit or an encounter with an ED visit evaluation and management CPT(R) code: 99281, 99282, 99283, 99284, 99285
Surgical categories	ICD-10-PCS procedure codes and CPT procedure codes categorized by the National Healthcare Safety Network (NHSN) and available here: https://www.cdc.gov/nhsn/faqs/faq-ssi-proc-codes.html#q2
Predicted levels	Forecasted surgery volume during COVID-19 based on data from 1/1/2017 to 1/18/2020 (day before the first case of COVID-19 in the U.S.)