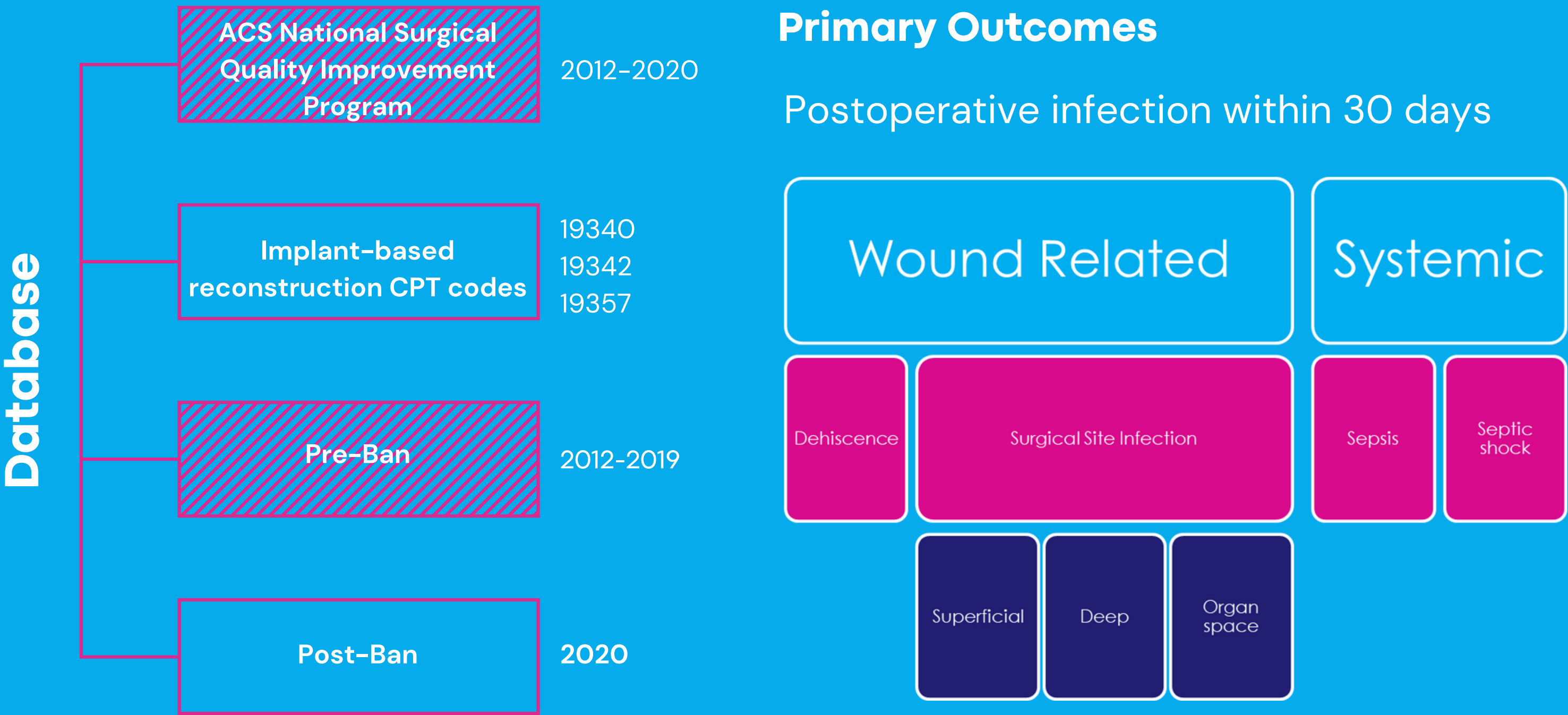


Did the National Ban on Bacitracin Irrigation Affect Infection Rates in Implant-Based Breast Reconstruction? An Analysis of a National Database

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Methodology



Conclusions

In patients who underwent implant-based reconstruction, there were higher odds of developing wound infection, all complications and reoperations after the injectable bacitracin ban.

More study into suitable alternatives to injectable bacitracin for surgical site antimicrobial irrigation are warranted, such as chlorhexidine and betadine.

Related literature

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Introduction

Periprosthetic infection is a feared complication in implant-based reconstruction

Standard of practice: surgical site irrigation of post-mastectomy pocket with antimicrobial solution prior to implant placement

Most often, triple antibiotic solution with gentamicin, cefazolin, and bacitracin

Bacitracin acts on gram positives, useful for skin flora like staph and strep

Empyema/pneumonia in infants was the only FDA approved indication for injectable bacitracin

FDA initiated a formal ban on injectable bacitracin in January 2020 given risks of nephrotoxicity and anaphyaxis

Objectives

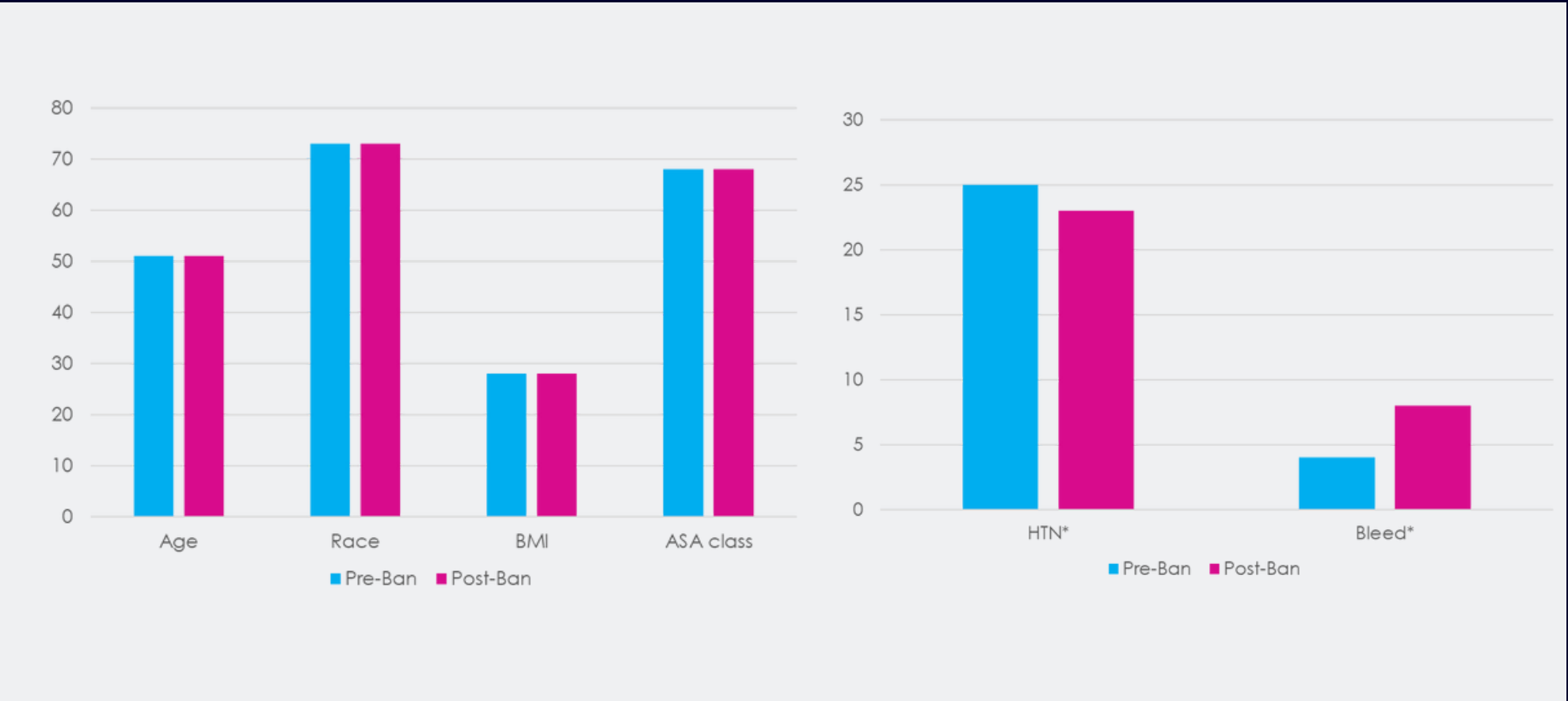
To characterize effects of the ban on a macroscopic, nationwide level

To assess the need for comparable alternatives to bacitracin solution for prevention of surgical site infection

Results

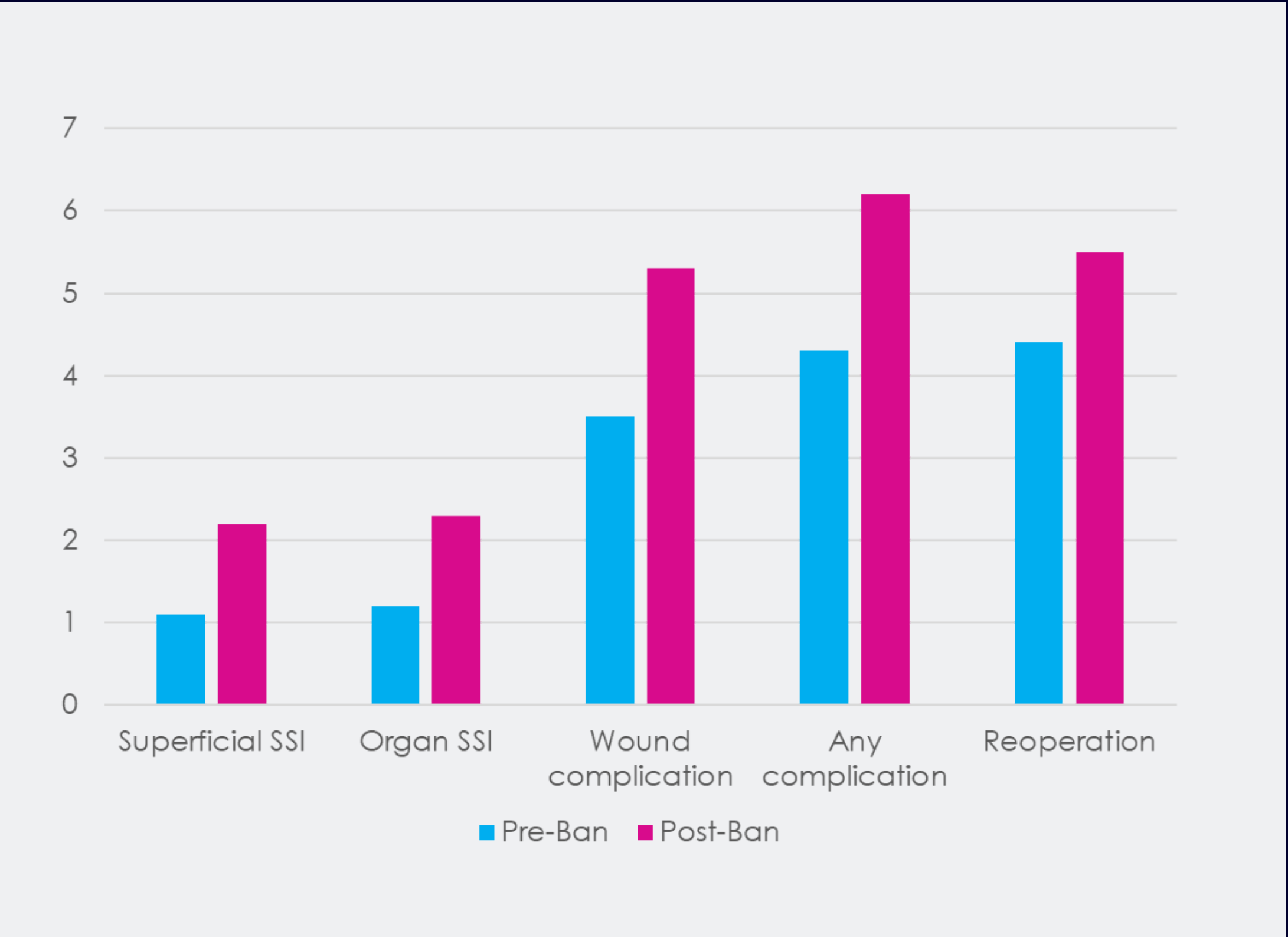
Data	Pre-Ban	Post-Ban
Years	2012-2019	2020
N	37,126	6,333
After Case-Control	6,313	6,313

These charts represents demographics and comorbidities after case-control matching. After matching, there were no differences in demographics. Only hypertension and bleeding disorders had significant differences after matching.



*Race refers to White race. ASA Class refers to ASA Class 2

Chi square analysis (after case-control matching) of postoperative complications, all p<0.05



Multivariate regression analysis of postoperative complications

CASE CONTROL MATCHED	Odds Ratio	p-value
Wound infection/complication	1.541	<0.001
Systemic infection	1.497	0.267
Other infection	0.481	0.141
Other complication	1.155	0.580
Any complication	1.414	0.001
Related infection	1.550	<0.001
Related systemic infection	1.715	0.162
Related Readmission	0.950	0.712
Reoperation	1.344	0.005
Unrelated readmission	0.955	0.733

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