Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Impact of the COVID-19 Pandemic on Cardiac Surgery

INVITED COMMENTARY:

For the vast number of readers who lived through it, in varying degrees of intensity, the report in this issue of *The Annals of Thoracic Surgery* by Nguyen and colleagues[1] from The Society of Thoracic Surgeons Database confirms what we all thought we were experiencing. No one could have missed the cliff off which elective cardiac surgery fell in the Northeast, and the somewhat lower cliff off which cardiac surgery fell in other parts of the country, a phenomenon well illustrated in Figure 5 of the report by Nguyen and colleagues.[1] Another strong anecdotal impression during March to May 2020 (the "first surge") was that patients who required surgery were not doing as well as they should. This report by Nguyen and colleagues[1] confirms that patients who had heart surgery during the first surge of coronavirus disease 2019 (COVID-19) experienced higher than expected mortality, at least in the most heavily affected Mid-Atlantic and New England regions, nicely illustrated in Figures 7A and 7B.

It is interesting to speculate about why a mortality increase was not seen in other regions less affected by COVID-19. Nguyen and colleagues[1] do a very good job of discussing various explanations, sensibly eliminating baseline differences in surgical prowess, and focusing instead on myriad potential interactions at the level of systems and resources. At my own institution, I can confidently state that any kind of operation done during the height of the first surge felt a bit precarious; 75% of our operating rooms had been converted to intensive care units (ICUs). Almost all of our surgeons, operating room nurses, residents, and physician extenders had been redeployed to take care of COVID-19 patients in makeshift ICUs that had been rapidly expanded to more than double our baseline ICU capacity. Dropping any kind of cardiac operation from the before-time into our day seemed like a distraction; how could it not be?

In the summer of 2020, while we were enjoying the halcyon pause between the first and second surges, the failure of cardiac surgery volumes to return to normal was a source of widespread apprehension. It is at least somewhat comforting for Nguyen and colleagues[1] to confirm that it was not just my patients who stopped loving me, or my department's patients, or my region's patients. In addition to several potentially important factors well discussed by Nguyen and colleagues,[1] there may be a subtle business-of-medicine message here. The financial viability of hospitals in this country depends on performing elective procedures on patients with commercial insurance, particularly in the most profitable specialties. Service lines devoted to the treatment of heart disease have operating rooms, catheterization laboratories, specialized equipment, seductive new devices, and fleets of cardiologists feeding the beast. Maybe our elective procedures were never more than approximately 80% demand-push. Are the approximately 20% that were actually supply-pull proof of overuse, or does their postsurge disappearance simply represent a temporary shift in public health priorities? Perhaps in due time we will recreate "demand" in the 20%, but without necessarily answering that question.

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REFERENCE

1. Nguyen TC, Thourani VH, Nissen AP, et al. The effect of COVID-19 on adult cardiac surgery in the United States in 717 103 patients. *Ann Thorac Surg*. 2022;113:738-747.