

A Rise of Public Interest in Aesthetic Facial Surgery Procedures During the COVID-19 Pandemic: A Google Trends Analysis

Nicolette V. Siringo, BA; Daniel Boczar, MD; Zoe P. Berman, MD; Bachar Chaya, MD; Eduardo D. Rodriguez, MD, DDS

From the Hansjörg Wyss Department of Plastic Surgery, New York University Langone Health, New York, NY.

Corresponding Author: Dr Eduardo D. Rodriguez, NYU Langone Health, 222 E 41st Street, 6th Floor, New York, NY 10017, USA.

E-mail: eduardo.rodriguez@nyulangone.org; @dr_eduardo_d_rodriguez_nyc

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The declaration of COVID-19 as a Global Health Emergency has had disproportionate effects on elective surgery practice, with long-term impacts remaining to be seen. A number of articles have recently appeared in the media discussing the rising interest in aesthetic facial plastic surgery procedures.^{1,2} Additionally, a recent survey by the American Society of Plastic Surgeons revealed that 64% of respondents have seen an increase in telemedicine consultations since the beginning of the COVID-19 pandemic.³ We hypothesized that by analyzing Google search trends (Google, Mountain View, CA), we could quantify the increased interest in aesthetic facial surgery across the United States. The Google Trends tool analyzes relative search volume (RSV) of terms within a given time frame on a scale from 0 to 100, with 100 indicating highest popularity. We therefore analyzed terms relevant to aesthetic facial surgery from January 1, 2019 to December 31, 2020. Search terms were discussed among two team members (N.V.S. and D.B.) with another team member (Z.P.B.) resolving disagreements of inclusion. The search was then independently performed in February 2021 and reviewed by all authors. Search trends were compared relative to key events surrounding the pandemic.

A recent study by Dhanda et al. examined Google Trends for 10 relevant search terms: lip fillers, rhinoplasty, brow lift, blepharoplasty, chin augmentation, chemical peel, liposuction, hair transplant, facelift, and botox.⁴ However, data were only analyzed through July 2020, before many stay-at-home orders were lifted. Our analysis encompassed these terms as well as several synonyms (lip injections, lip flip, nose job, undereye filler, cheek filler, cheek injections, chin implant, genioplasty) in order to capture a more comprehensive representation of public interest (Figure 1). We observed a total increase of 34.5% in searches from January 2019 to December 2020, with procedures addressing the lips (51.8%), eyes (44.4%) and nose (10.8%) exhibiting the most substantial increases. From March 2020 to year-end, searches related to these features displayed a 156.3%, 136.7%, and 37.2% increase, respectively.

During the pandemic, elective procedures were cancelled in order to divert labor and conserve resources for the fight against COVID-19, and search interest in aesthetic surgery subsequently decreased as public priorities shifted.⁵ As expected, Google Trend results for the term “COVID” reached peak interest on March 29. Elective surgeries resumed in mid-2020, with Indiana being the first state to loosen restrictions.⁶ The spike in aesthetic surgery interest that we have seen in recent months may be due to these previously cancelled procedures now being pursued or a variety of alternative factors. For example, use of video conferencing software increased significantly as many industries converted to a work-from-home format. The front-facing camera tends to accentuate unflattering angles, and people are not accustomed to seeing their facial and body movements while interacting with others. Another possibility is that individuals who contemplated plastic surgery in the past now have more down time at home to recover. One of the primary barriers to pursuing elective facial surgery is that many procedures result in visible bruising and swelling. Now, the work-from-home format and public mask mandates have mitigated some of these concerns.

It is also imperative to consider economic factors that may have influenced the observed trends. The Dow Jones Industrial Average (DJIA) and the S&P 500 (S&P) are stock market indices calculated on the performance of 30 and 500 stocks, respectively, that are often leaders in their industry. These indicators displayed a similar trend line to that in our study, characterized by a sharp decrease at the onset of the pandemic in March 2020 (Figures 2 and 3) and a substantial overall increase by year-end. It is reasonable to assume that the observed increase in interest in facial aesthetic surgery is in part a result of economic upturn as well as the distribution of stimulus checks, the first batch of which was deposited by the Internal Revenue System (IRS) into taxpayers' bank accounts on April 11, 2020.

The limitations to using Google Trends for research purposes must be considered. For example, the search term "botox" showed a massive spike the week of November 17, 2019. This was the week that Allergan announced its first-ever National BOTOX[®] Cosmetic Day. Major events like these may cause an uptick in public interest and may subsequently skew data. Additionally, seasonal variations in search activity could potentially impact findings. We conducted the same search strategy within the same time frame from the prior year (2019) and included this trendline in Figure 1 to serve as a comparative baseline from which to draw our conclusions. Despite these limitations, this software provides potentially valuable insight that may allow us to gauge the influence of certain events on public opinion and behaviors. Other authors have used the Google Trends software in order to gain data-driven insight into the effects of the COVID-19 pandemic on aesthetic surgery.⁷ Our study offers a unique contribution by focusing on facial procedures. This platform may also be revisited periodically in anticipation that trends will change as a result of lifted restrictions and vaccine distribution.

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Figure Legend

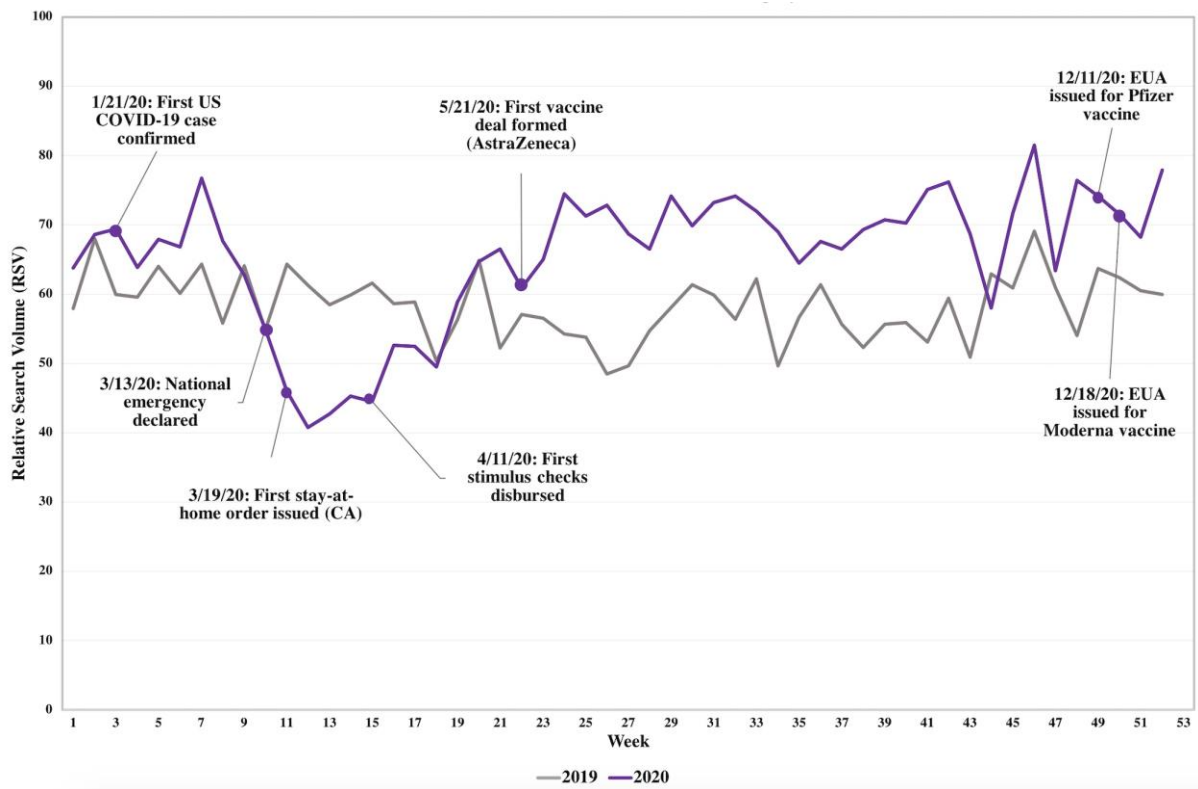
Figure 1. United States Search Interest in Facial Plastic Surgery Queries.

Figure 2. Dow Jones Industrial Average Overview (2020).

Figure 3. S&P 500 Overview (2020).

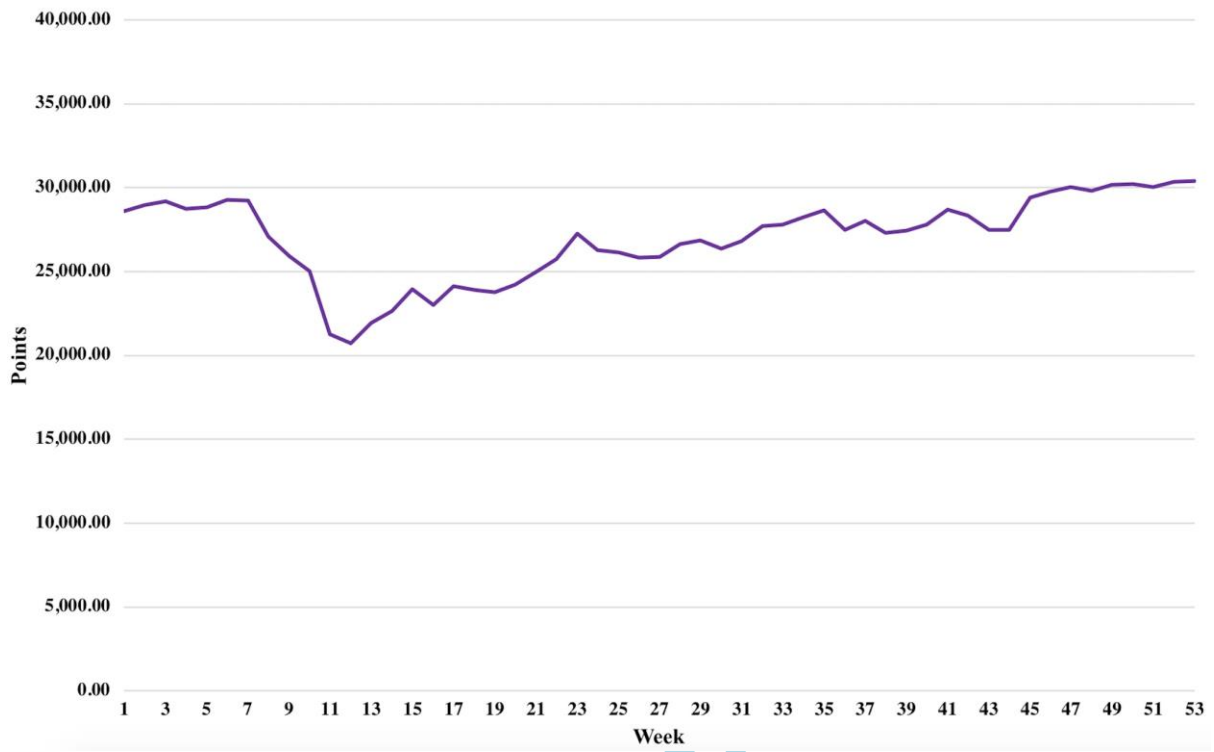
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Figure 1



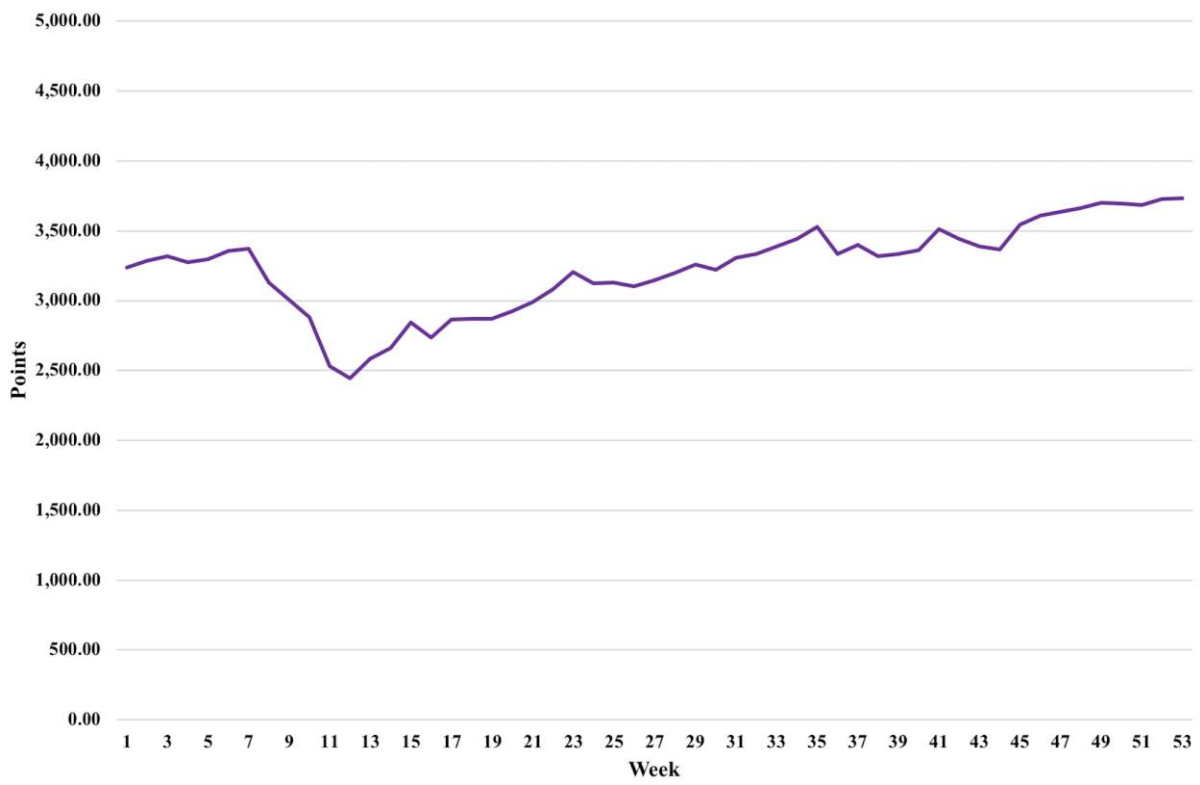
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Figure 2



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Figure 3



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