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## Introduction

Physician-rating websites (PRWs) is a novel method for patients to share information about medical care they receive.<sup>1</sup> A recent systematic review (2013) shows that the current usage of PRWs, with respect to the number of ratings, is still low but is increasing.<sup>2</sup> To our knowledge, an original investigation was done for online ratings of otolaryngologists in Northeastern United States which identified 281 otolaryngologists including their subspecialties.

**Objective.** To describe online patient ratings and reviews of otolaryngologists and identify factors associated with positive and negative reviews.

## Methods

**Study Design.** Cross-sectional analysis of survey data

**Methods.** A random sample of 526 otolaryngologist representing 5% of 10,463 otolaryngologists in active practice was selected from the ABOto member directory website. Data were collected from two websites (Vitals.com and Healthgrades.com). Ratings from both websites were weighted and combined to give an overall rating scaled between 0.0 – 1.0. Written reviews from each website were classified as extremely positive, positive, neutral, negative, and extremely negative. Ratings were considered favorable if they were greater than 0.51, and reviews were considered favorable if they were positive or extremely positive. Other variables included gender, State, years in practice, subspecialty, and academic versus private practice. Descriptive statistics were used to examine trends, and linear and logistic regressions were used to compare ratings based on the listed factors.

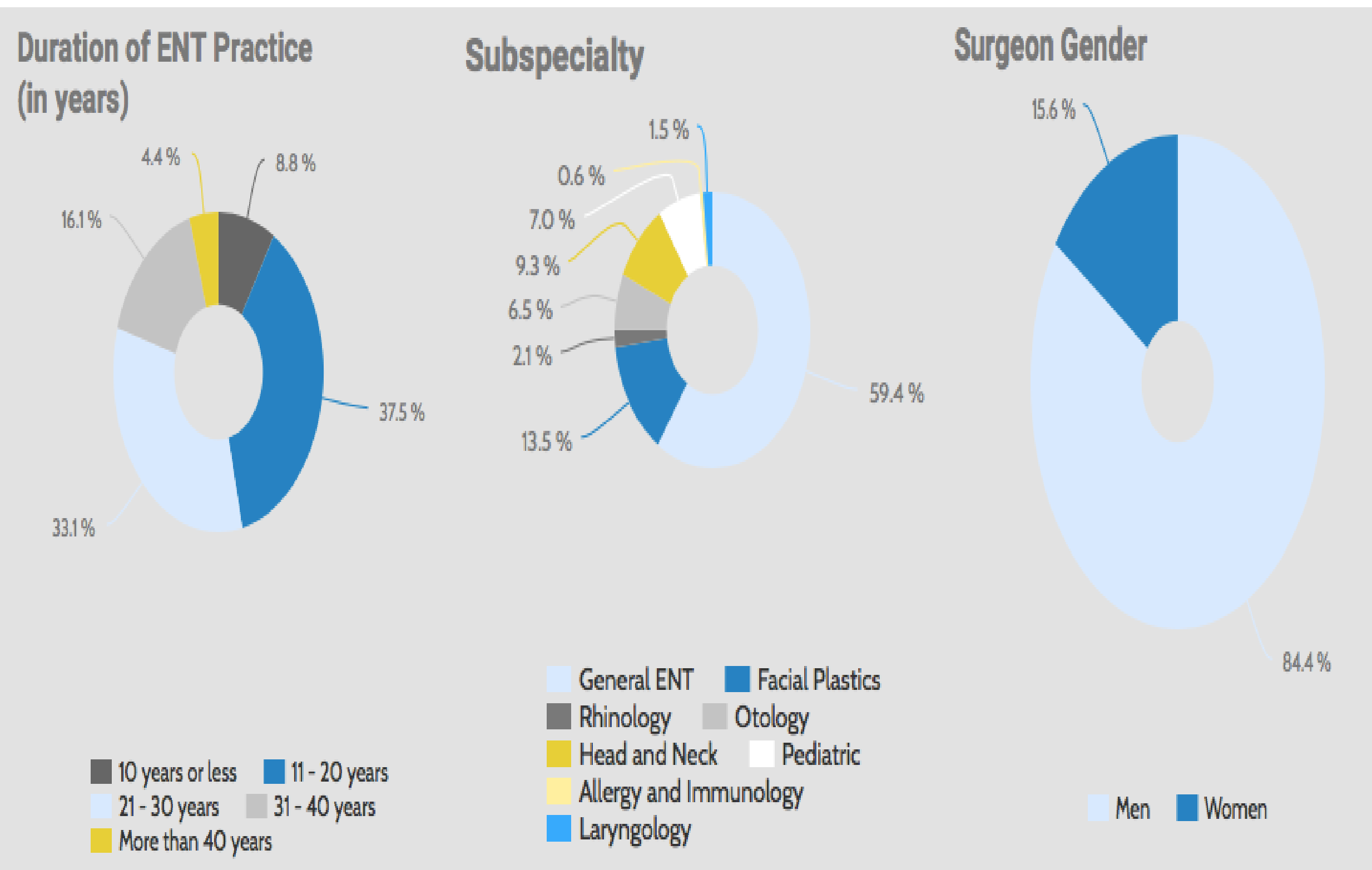
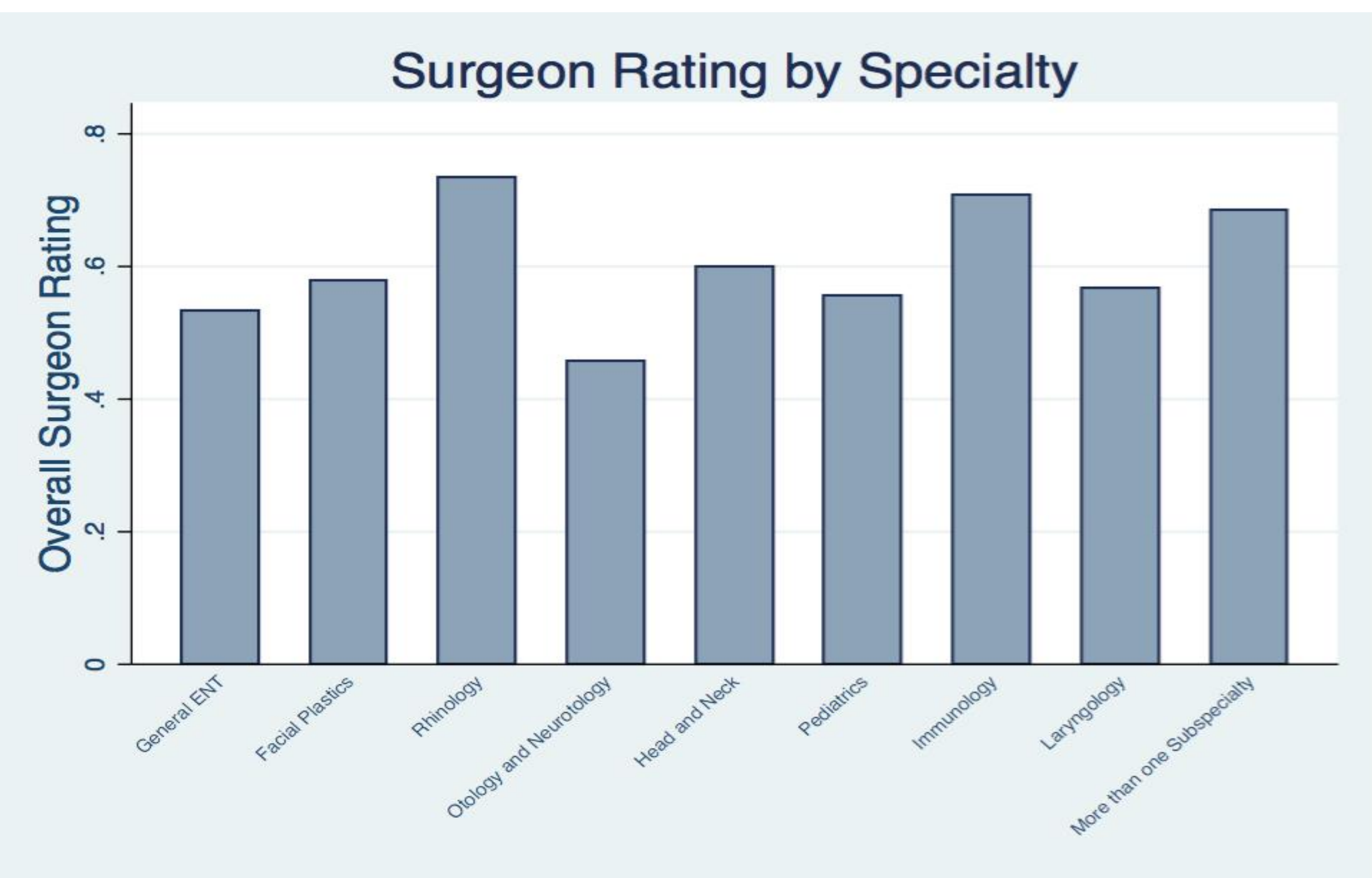


Chart 1. Gender, specialty, and number of years in practice distribution among the rated otolaryngologists.

## Results

Of our overall sample, 418 otolaryngologists had profiles on both Vitals and Healthgrades, of whom 84.4% were male, 40.1% had a fellowship or subspecialty training, and 55.5% have been in practice for more than 20 years. Favorable ratings were 80% more likely for younger physicians, ie, if time spent in practice was less than 20 years ( $p=0.010$ ). There were 134 otolaryngologists with written reviews on Vitals.com. Overall, 69.7% of otolaryngologists had favorable reviews. 27 out of 134 otolaryngologists had negative/extremely negative reviews. Charts 1-4 summarize our results.

Chart 2. Overall surgeon rating by specialty



## Mean Online Rating by State

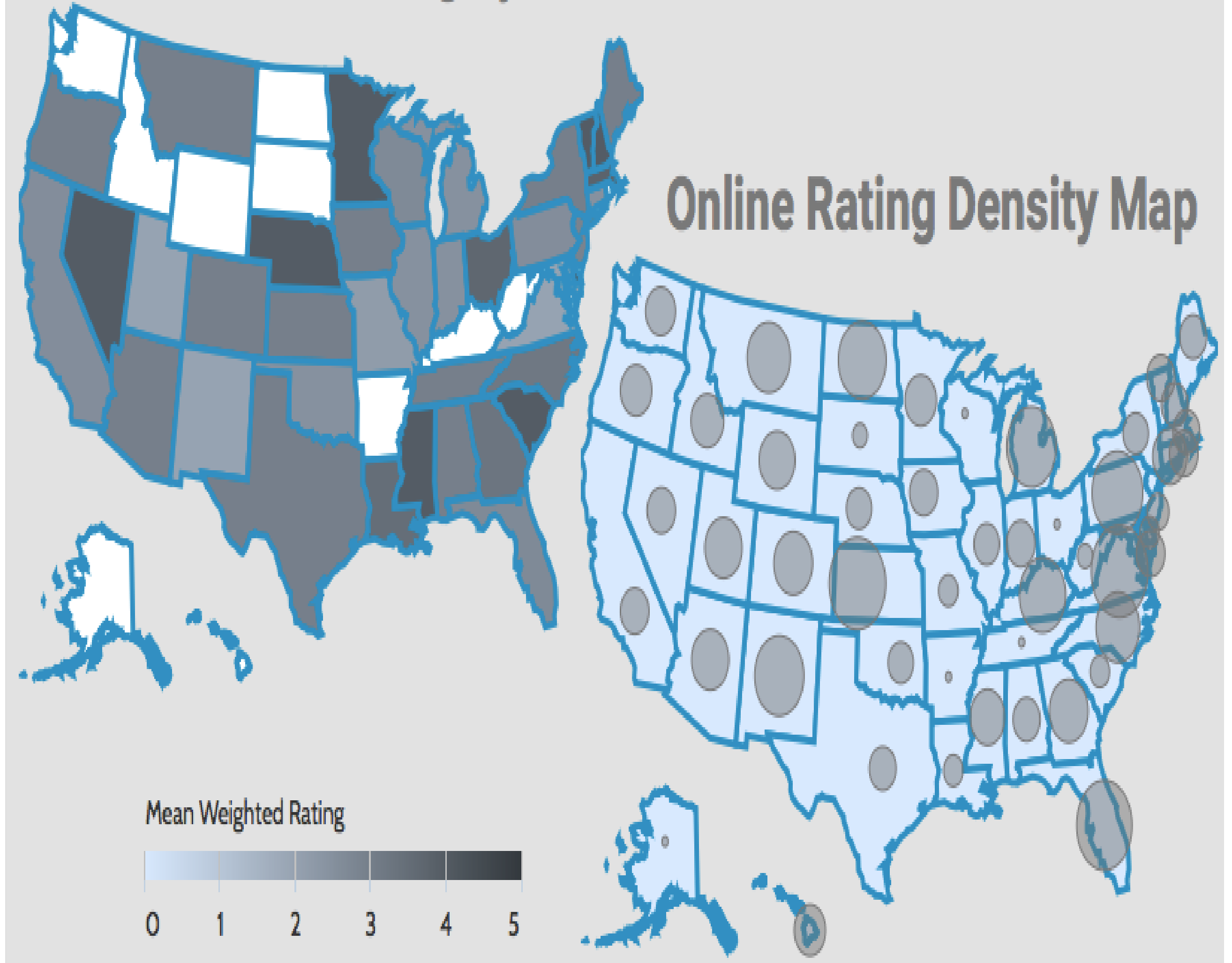


Chart 4. Online Rating Maps

## Discussion

Patients often resort to the internet for healthcare related information and choosing their provider. Sixteen percent of internet users have consulted online ranking or reviews of doctors or other providers and 4% of internet users have posted a review of a doctor online.<sup>3</sup> PRWs we used were in English, active at the time of the study, free to the public use, and not restricted by specialty. Still, it should be considered that there are highly rated PRWs like Angie's list that require a fee to access the physicians' ratings and reviews. Most of the otolaryngologists had a profile with mostly positive ratings and reviews, which was similar to the study by Sobin et al.<sup>4</sup> Similarly, many studies showed that most patients give physicians a favorable rating on online physician-rating sites.<sup>1,2</sup> In contrast to the study published by Sobin et al,<sup>4</sup> we found that for every year increase in clinical practice, the overall rating decreased by 2.4% ( $p<0.0001$ ). Also, a cross-sectional study reported that ratings were more positive for physicians who graduated in more recent years.<sup>5</sup> This might be attributed to the higher number of patients a physician treats in practice, and therefore, acquire more ratings, including negative ones. A real bias exists in the data included on these websites : they are mostly positive, the patient who are posting them are not verified as patients of the physician they are reviewing, and the motivations behind the review - both positive and negative - are unclear and debatable. This has prompted some institutions to collect physician reviews from all their patients and making it public on their website. Another limitation is that PRWs are accessible only to patients with an internet access and sufficient literacy.

Chart 4. Content of Negative Written Reviews



## Conclusions

Physician rating websites is a contemporary approach for patients to choose their healthcare provider. Most of the ratings and reviews of otolaryngologists were positive. Despite that, negative reviews exist and can affect the physician's reputation. These websites have a role as a patient-outcome measure, with several factors possibly affecting this outcome. It is important for physicians to look out for these factors and cause of their negative reviews to address them in their setting.

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