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## Introduction

- The otolaryngology workforce of Florida, the third most populous and second fastest-growing state by population (+8.5% from 2020 to 2024), faces challenges in providing adequate access to care, particularly in rural and underserved areas<sup>1</sup>
- Historically, rural and less urban areas have struggled with access to specialty care, including otolaryngology, and national studies consistently show a significantly lower density of otolaryngologists in rural compared to urban areas<sup>2,3</sup>
- U.S. data also demonstrate regional variations in the otolaryngology workforce, with studies estimating an average of 2.6 otolaryngologists per 100,000 people and higher densities in counties with higher socioeconomic status<sup>4-7</sup>
- Thus, the need to examine the otolaryngology workforce at a state or regional level is critical
- This analysis aims to provide insight into relevant trends in Florida's otolaryngology workforce to build a foundation from which to develop actionable solutions**

## Methods

- We identified otolaryngologists practicing in Florida using the Centers for Medicare and Medicaid Services (CMS) database, American Academy of Otolaryngology–Head and Neck Surgery (AAO-HNS) database, and the Florida Society of Otolaryngology – Head & Neck Surgery (FSO-HNS) directory<sup>7-9</sup>
- We compiled a unique list of practicing otolaryngologists with the following data: state of residency training, practice location, fellowship training, and demographic information
- We excluded residents, fellows in training, and physicians practicing outside of Florida
- The 2023 Rural-Urban Continuum Codes (RUCC) were used to categorize metropolitan and non-metropolitan counties, and to determine county populations
  - RUCC codes identify metro counties by the population size of their metro area, and non-metro counties by its degree of urbanization and adjacency to a metro area
  - Codes range from 1-9, with **1-3 classified as metro and 4-9 as non-metro**
- Counties were grouped by RUCC code, and the number of otolaryngologists per 100,000 (/100k) residents and per 100 square miles for each code were calculated

## Otolaryngologist Characteristics

- 605 otolaryngologists were identified practicing in Florida; 82.1% were male and 91.6% held an M.D. degree
- 38.5% were fellowship-trained
- 11.6% practiced in an academic setting

State of residency training	n = 605 (%)
Florida	121 (20.0%)
New York	73 (12.1%)
Pennsylvania	45 (7.4%)
Michigan	37 (6.1%)
Texas	31 (5.1%)
Other U.S. states	276 (45.6%)
International	19 (3.1%)

Fellowship type	n = 233 (%)
Facial Plastics	64 (27.5%)
Head & Neck	54 (23.2%)
Pediatric Otolaryngology	43 (18.5%)
Otology/Neurotology	34 (14.6%)
Rhinology	23 (9.9%)
Laryngology	11 (4.7%)
Other*	4 (1.7%)

Practice setting	n = 605 (%)
Non-academic	535 (88.4%)
Academic	70 (11.6%)

Table 1: Training Background and Practice Setting of Practicing Otolaryngologists in Florida.

\*Other includes Sleep (n=3) and Allergy (n=1)

## Distribution of Otolaryngologists

- Otolaryngologists practiced in 42 of 67 counties; **7 metro and 18 non-metro counties had no otolaryngologists**
- 746,222 Floridians (3.5%) live in counties without an otolaryngologist; 3,337,898 (15.5%) live in counties with five or fewer
- 99.2% of otolaryngologists practiced in metro counties** (2.87 per 100,000 people; 1.56 per 100 square miles)
- Only 0.8% practiced in non-metro counties (0.76 per 100,000 people; 0.03 per 100 square miles)

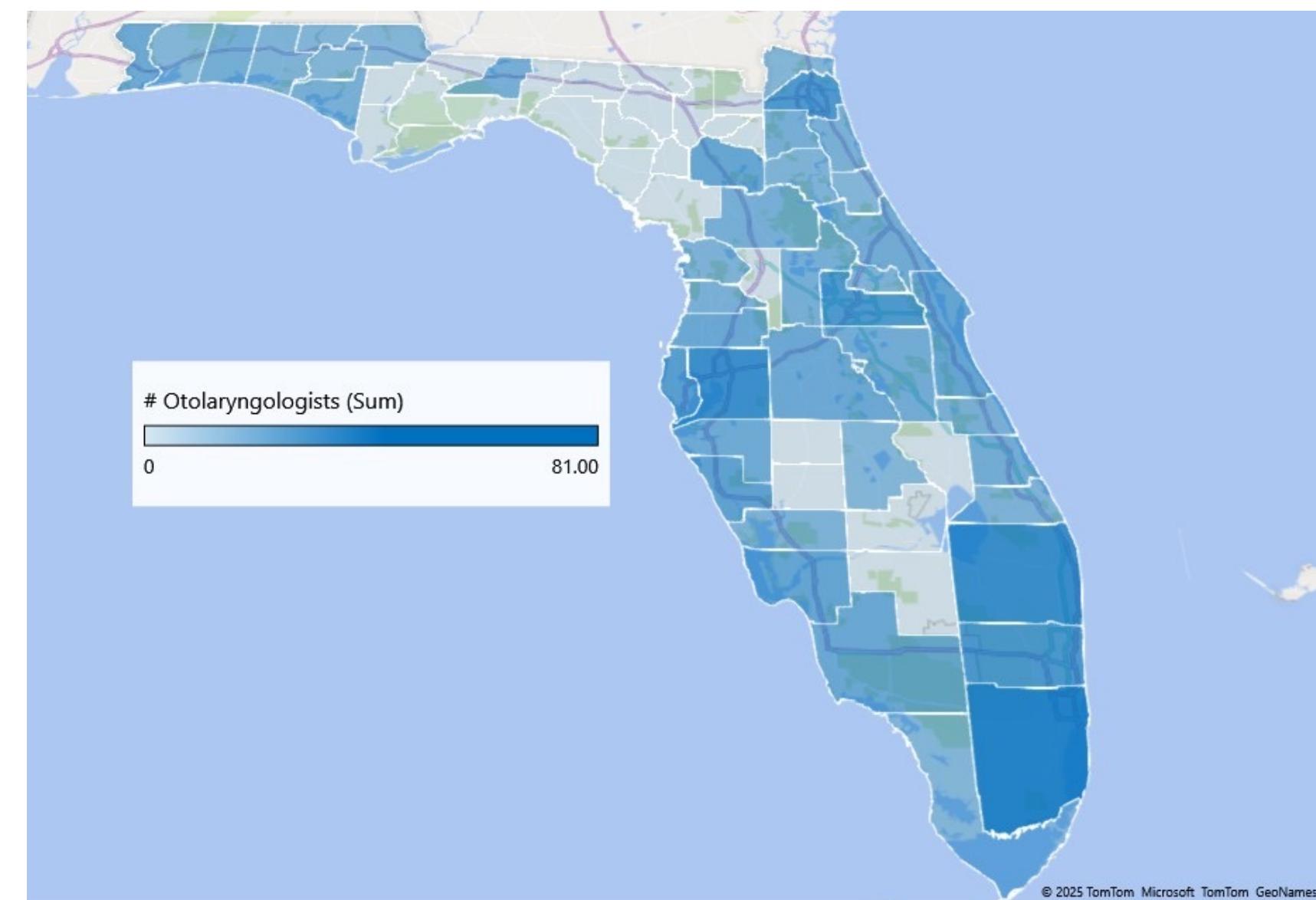


Figure 1. County Level Number of Otolaryngologists. Values expressed as an unadjusted number per county.

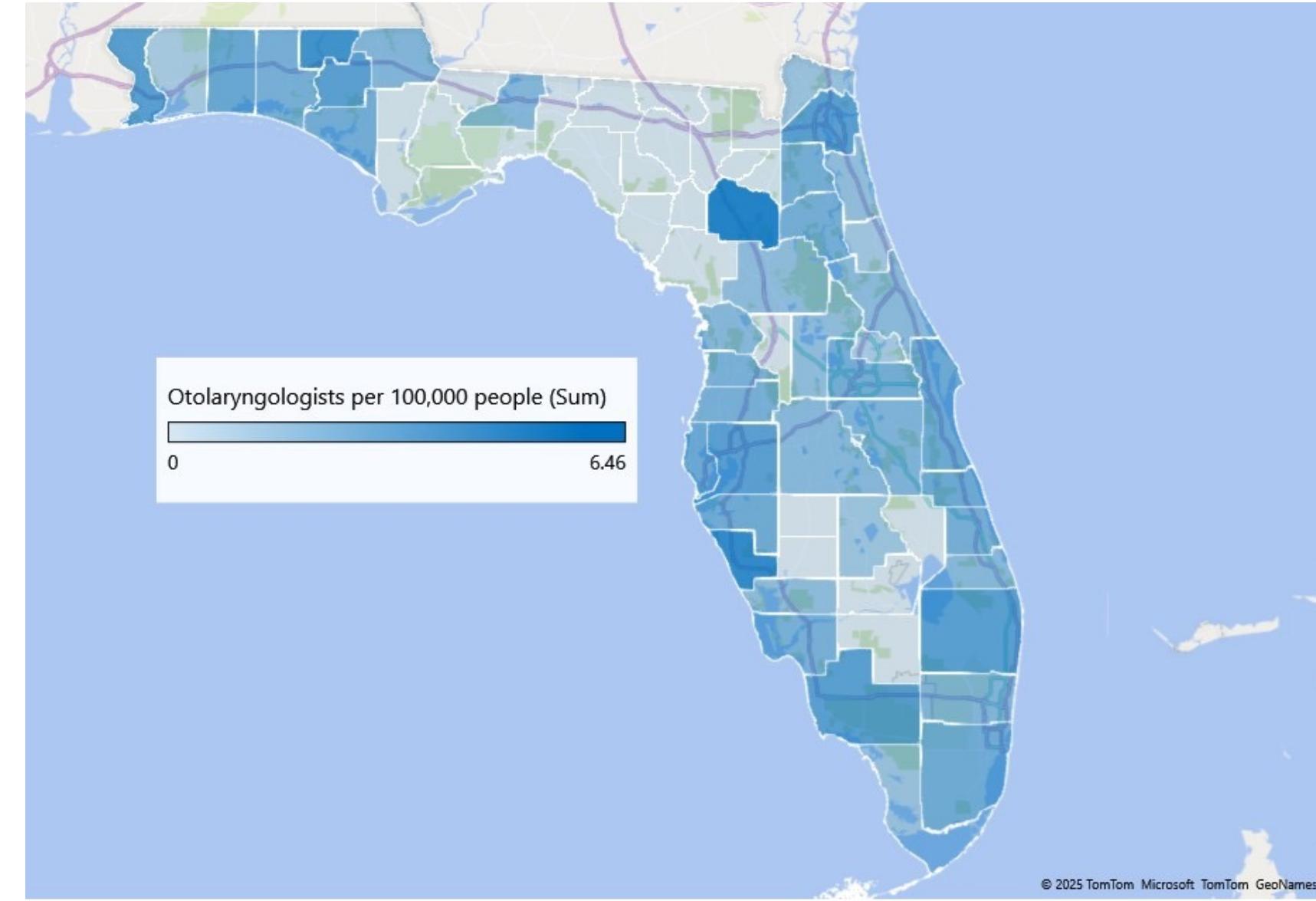


Figure 2. County Level Distribution of Otolaryngologists Relative to Population Size. Values expressed as the number of otolaryngologists per 100,000 people in each county.

RUCC code	Number of counties	Total population	Total number of ENT's	Average number of ENT's per 100,000 people	Average number of ENT's per 100 square miles
1	16	13,592,832	401	2.95	2.81
2	22	6,354,857	181	2.85	0.93
3	7	931,999	18	1.93	0.38
4	5	305,156	3	0.79	0.07
5	-	-	-	-	-
6	6	200,195	1	0.5	0.02
7	-	-	-	-	-
8	10	144,922	1	0.69	0.02
9	1	8,226	0	0.00	0.00

Table 2: Distribution of Otolaryngologists in Florida Based on Rural-Urban Classification Code

## Conclusion

- There are substantial geographic disparities in the Florida otolaryngology workforce**, with otolaryngologists heavily concentrated in metropolitan areas and a significant shortage in non-metropolitan regions
- In our analysis, we encountered limitations in the available data, as **there is currently no standardized means of tracking the state workforce**
  - Crucial, yet unavailable, information includes: contribution of APPs, practitioner age, and clinical practice patterns, particularly regarding deviations away from general otolaryngology practice
- Addressing workforce disparities will require strategic initiatives, which must be informed by a reliable system for tracking and evaluating the ever-changing workforce over time**
- The authors, in collaboration with the state society of FSO-HNS, have initiated the development of a robust annual workforce survey aimed at creating a comprehensive state-level database to begin addressing these concerns

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