

## **ENT and Allergy Treatment** MARKET OVERVIEW



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**FALL 2022**

# ENT Healthcare Market Overview

## ENT Market Overview

### ENT Treatment Market Overview

- Otolaryngology, or (“ENT”), is a medical specialty focused on the diagnosis and treatment of diseases that affect the ear, nose, sinus, throat, head, and neck
- Diagnosis and treatment takes place in hospitals, clinics, or ambulatory surgical centers (“ASCs”) — CMS continues to approve new procedures to be performed in an ambulatory setting
- Otolaryngologists are trained in both medicine and surgery and can address cosmetic issues as well as health issues
- Market demand for Otolaryngologists is driven by an:
  - Increasing rate of hearing loss
  - Expansion of healthcare coverage
  - Aging population consumes more healthcare services
  - Increasing incidence of allergies and related ailments

### Key ENT Stats



**466 million**

People worldwide have disabling hearing loss

**34 million**

Of which are children



**27 million**

People see an ENT doctor each year in the U.S., generating

**\$6.2 billion**

Of ENT Treatment Market Value



**31 million**

People in the U.S. are afflicted by sinusitis

**16 million**

Doctor visits for sinusitis in the U.S.



**59.0%**

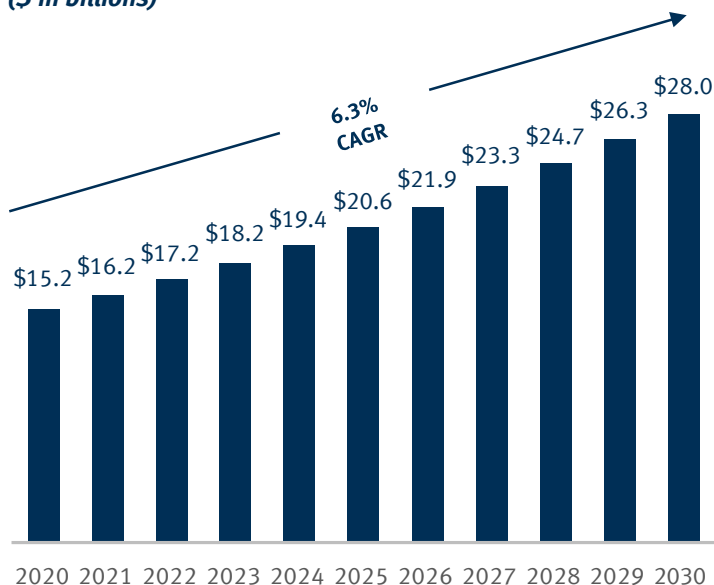
Of ENT Patients are Privately Insured

**\$2,492**

Median net revenue per ENT case at ASCs

### Global ENT Treatment Market Growth, 2020-2030

(\$ in billions)



Sources: Becker ASC, Precedence Research, World Health Organization.

### Health Issues Treated by Otolaryngologists

Ear	Nose	Throat	Head & Neck
Hearing Loss	Sinusitis	Throat Tumors	Facial Trauma
Balance Disorders	Nasal Cavity Allergies	Diseases of Esophagus	Benign & Malignant Tumors
Ear Infections	Smell Disorders	Voice Disorders	Infectious Diseases
Ear Noise (Tinnitus)	Polyps	Swallowing Disorders	Deformities of the Face
Facial & Cranial Nerve Pain/ Disorders	Nasal Obstruction from Deviated Septum	Diseases of the Larynx (Voice Box)	Thyroid Conditions
Congenital Disorders	Rhinoplasty Surgery	Sleep Apnea	Free Flap Reconstruction

# ENT Healthcare Market Overview

## ENT Market Demand Drivers

### Increasing Rates of Hearing Loss

#### Global

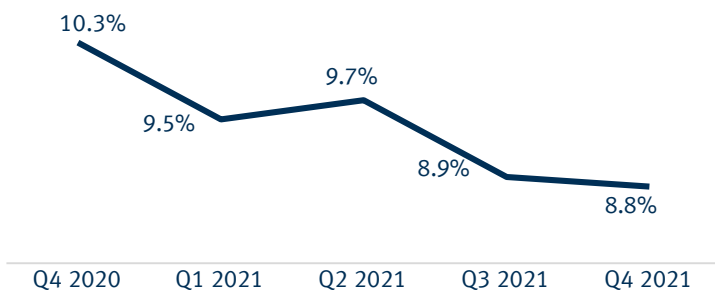
- The World Health Organization ("WHO") predicts the global population with hearing loss will grow from 466 million in 2018 to 900 million by 2050, making hearing impairment one of the most common disabilities in the world
- Chronic Otitis Media ("Ear Infection") is the leading cause of hearing loss globally
  - This disease is preventable, but the number of global cases is increasing due to incredibly low accessibility to ENT treatment in developing nations

#### North America

- 10.0% of North Americans are plagued by loss of hearing
- Hearing loss in the U.S. increased from 11.5 million incidences in 2008 to nearly 15.0 million incidences in 2018

### Increased Levels of Health Insurance Coverage

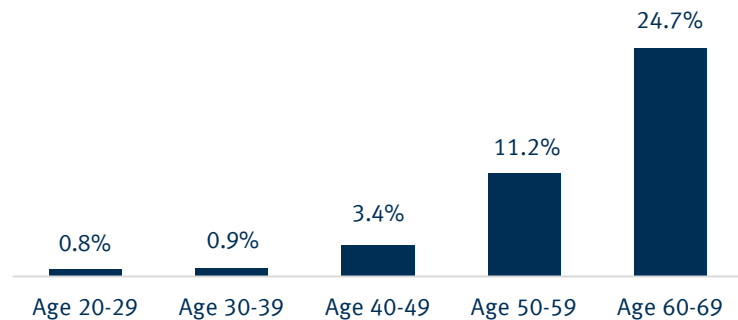
#### % of Uninsured Americans



- The Biden Administration has an explicit goal to expand health coverage
  - Medicare and Medicaid spending is projected to grow at an average annual rate of 7.2% and 5.6%, respectively through 2030
  - Over 14.5 million Americans signed up for health coverage since 2020
- Without health insurance, visiting otolaryngologists in an emergency can cost up \$500
  - Increased insurance coverage makes ENT Treatment more accessible and thus in higher demand

### Increasing Geriatric Population Size

#### % of U.S. Population with Hearing Loss by Age



- The WHO reports that the proportion of the world population over 60 years will go from 12.0% today to 22.0% by 2050
- ENT issues progress with age and create challenges for the elderly which contribute to the deterioration of mobility, falls and injuries, depression, cognitive functions impairments, isolation, and a loss of independence

### Allergy Growth Drivers Mirror Those of the ENT Treatment Market

- Increased healthcare coverage through Medicare and Medicaid
  - Encourages more individuals to seek out help related to allergy health issues
- Increasing size of geriatric population
  - Elderly people are often immunocompromised
  - Leaves them susceptible to various types of allergies and in need of treatment
- Increase in the prevalence of allergic disorders due to a more hygienic lifestyle

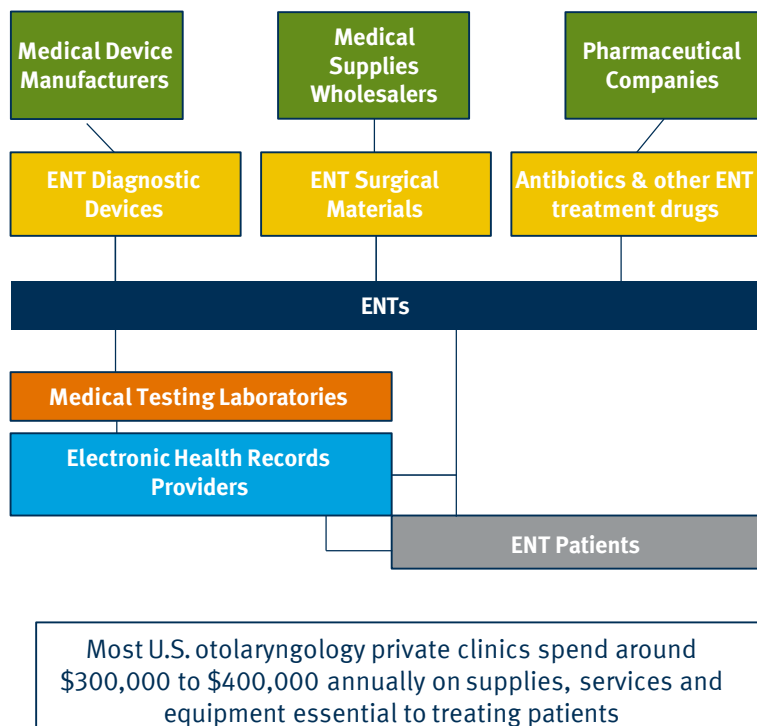


Sources: American Academy of Otolaryngology, Business Insider, Harvard Health Publishing, National Library of Medicine, The White House, U.S. Department of Health & Human Services, U.S. News, World Health Organization.

# ENT Healthcare Market Overview

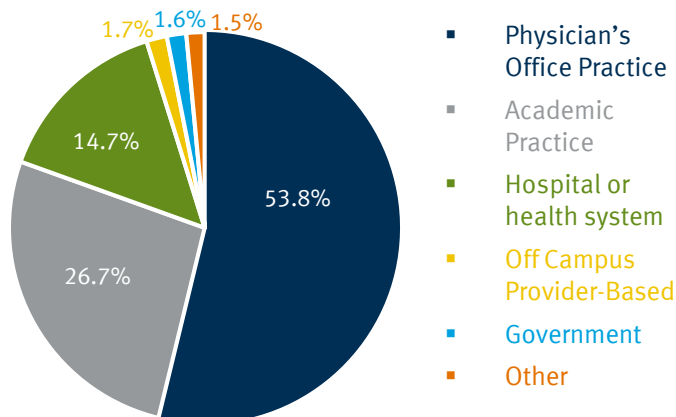
## ENT Market Supply Drivers

### ENT Treatment Supply Chain



### Distribution of Otolaryngologists Across U.S. Treatment Facilities

- 5,961 otolaryngologists in the U.S. practice in cities and metropolitan areas
- 65.7% of U.S. counties do not have access to ENT healthcare facilities



Sources: American Medical Association, Becker ASC, Fuel Medical, Geographic Distribution of the Otolaryngologist, National Library of Medicine, Otolaryngology Workforce Analysis, SCL Health.

### Too Few Otolaryngologists in the U.S.



**296**  
Fully trained  
otolaryngologists  
enter the U.S.  
workforce  
annually



**306 to 316**  
Otolaryngologists  
per year leave the  
U.S. workforce

- There are approximately 10,000 fully trained and practicing otolaryngologists in the U.S.
- Most research suggests that the number of trained otolaryngologists is insufficient to supply current and projected U.S. healthcare needs
  - Experts cite a need for a change in training such as mandating earlier commitment to sub-specialization and shortening the length of residency
  - There have been calls for Congress to lift the cap on the number of residency positions that Medicare partially supports
  - The shortage of otolaryngologists is becoming more acute as improvements in technology and surgical applications increase demand

### Distribution of ENT Doctors Across Regions

- The supply of and competition between otolaryngologists increases with regional population, income, education, and socioeconomic status
- North America holds the largest share of the global ENT market due to the continent's relatively:
  - Increased health consciousness
  - Rising healthcare expenditure & insurance coverage
  - Rapid growth of minimally invasive surgeries available in the U.S.

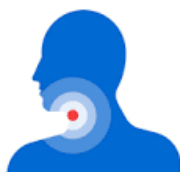
# ENT Healthcare Market Overview

## Key Trends in the ENT Market

### Otolaryngologists Continue to Concentrate in Densely Populated Regions

#### Statistics on Rural Areas & ENT Treatment

**Nearly One out of Four**  
Of Americans live in rural settings



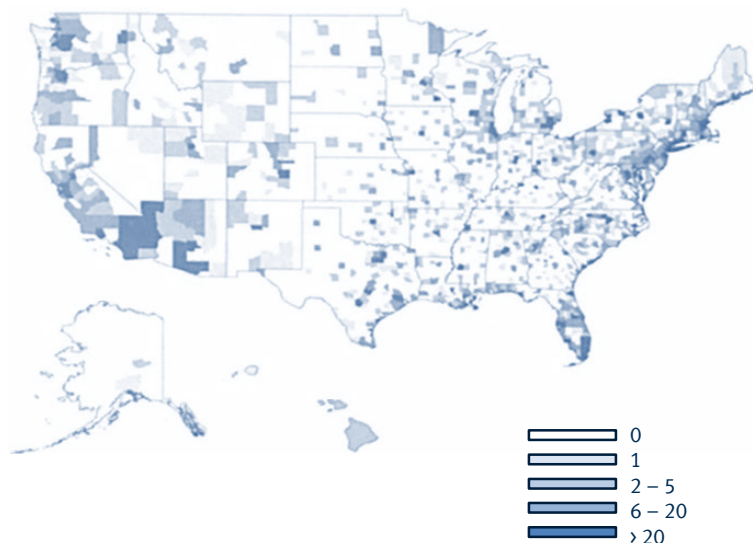
**61.8%**  
Of U.S. otolaryngology treatment facilities are located in cities and metropolitan areas

**2,064**  
U.S. counties do not have an otolaryngologist practice. Most of these are in rural areas



**98.0%**  
Of Head and Neck Surgeons practice in urban settings

#### Number of Otolaryngologists by U.S. County



#### Distribution of Otolaryngologists by U.S. County Population

Number of Counties	Population Range	Otolaryngologists
733	≥ 75,000	8,949
875	≥ 25,000 to <75,000	626
832	≥ 10,000 to <25,000	63
702	<10,000	4

#### Issues Associated with ENT Healthcare in Rural Locations

- As technology progresses and medical practice evolves, it is difficult and costly for small-practice ENT practices to stay updated on the complicated digital components essential to enhanced treatment without a support network surrounding them
- More complex procedures, such as those involving cancer removal, require support not present in many settings
- Relatively more difficult to recruit ENT providers in secondary and tertiary markets

Sources: Becker ASC, Geographic Distribution of Otolaryngologists in the U.S., Otolaryngology in the Context of Global Health, Otolaryngologist Workforce Analysis, The Challenges of Rural ENT Practice.

# ENT Healthcare Market Overview

## Key Trends in the ENT Market

### ENT Activity in ASCs is Poised to Grow in the Coming Years

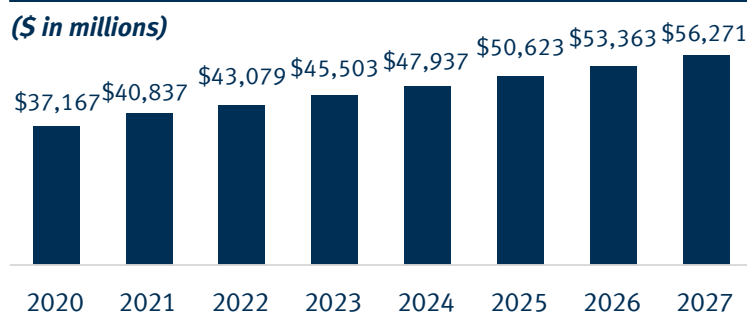
#### Key Growth Drivers of ENT Activity at ASCs

- The exponential rise in healthcare expenses over the last decade has resulted in changing healthcare practices and care settings
  - ASCs allow for significant ENT healthcare cost savings, better patient outcomes, and higher patient satisfaction scores
  - Illustratively, the cost of a tonsillectomy (removal of the tonsils performed by an otolaryngologist) in a hospital is \$6,944 whereas a tonsillectomy in an ASC costs \$3,433
- There is an increased frequency of ENT indications that necessitate regular minor procedures, which can be performed in ASCs instead of hospitals
  - Generally, patients spend 25.0% less time in medical care facilities when procedures are performed in ASCs versus hospitals
  - Convenience of ASCs surpasses hospitals
  - Providers and patients have more control over scheduling and face fewer delays
- There is a growing burden of performing surgical procedures on hospitals and healthcare organizations
  - Hospitals and patients cannot cost effectively allocate hospital beds in lower acuity procedures
- Ambulatory surgery centers deliver high quality results
  - Patient satisfaction rate for ASCs is 98.0%
  - Most patients find the setting to be more personal and comfortable than hospitals

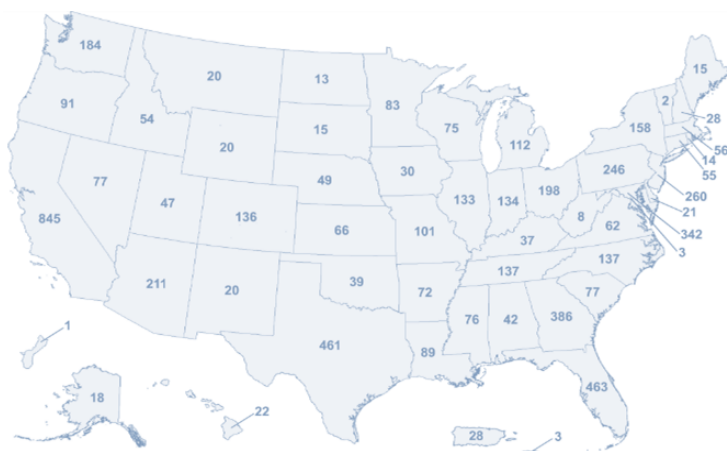
#### ENT Treatment Provided at ASCs

- The prevalence of ASCs benefits ENTs as more procedures are added to the list of those that can be performed in an ambulatory setting
  - Illustrative procedures performed by otolaryngologists in ASCs include laryngoscopy, tonsillectomy, adenoidectomy, endoscopic sinus surgery, rhinoplasty, excisional biopsy, tympanostomy, tympanoplasty, and more

#### ASC Annual Revenue



#### Number of Medicare-Certified ASCs per State/Territory



Sources: ASC Association, Becker ASC, Fierce Healthcare, Geographic Distribution of the Otolaryngologist, IBIS World.



# ENT Healthcare Market Overview

## Key Trends in the ENT Market

### Increasing Preference for Minimally Invasive ENT Procedures

#### Evolution of ENT Surgery Procedures

##### Throat

- Otolaryngologists are most likely to recognize and diagnose laryngopharyngeal reflux disease and gastroesophageal reflux disease
  - In severe cases, ENTs will recommend surgery

Open surgery method: pulls the stomach down into the abdomen to allow for reconstruction of the esophageal sphincter

- The surgeon often inserts a tube to keep the stomach in place
- The tube is not removed for several weeks and causes discomfort

Minimally invasive method: laparoscopy

- Few small incisions, use video screen and technology for the operation
- Discomfort lasts a maximum of four days after surgery

##### Ear

- Otolaryngologists perform surgery to repair the tympanic membrane (eardrum) and remove Cholesteatoma (abnormal collection of skin cells deep inside the ear that can damage hearing and balance)

Traditional surgery method: incision behind the ear and possible removal of the mastoid bone

- Six to 12 week recovery

Minimally invasive method: endoscopic surgery, no incision/bone removal

- One week recovery

##### Nose

Traditional Rhinoplasty: incision, bone & cartilage readjustment, bruising

- Three month recovery, three hour operation and the nose still droops with gravity throughout aging

Liquid Rhinoplasty: non-invasive injectable nose-reshaping dermal fillers

- Two week recovery, 30 minute operation that lasts for a year, no blood loss

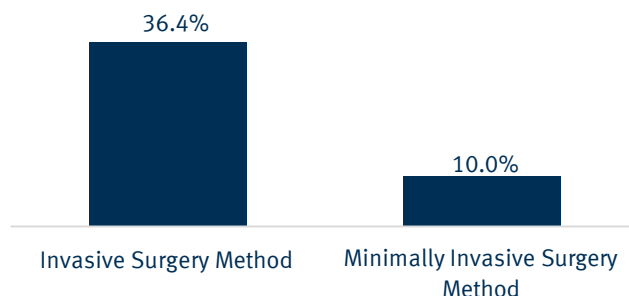
##### Head & Neck

Traditional Head/Neck Cancer Surgery: Split jaw or throat to remove tumor

Transoral Robotic Surgery: minimally invasive treatment that removes head and neck cancers through the mouth

#### Peer-Reviewed Studies on the Efficacy of Select Minimally Invasive ENT Procedures

##### Average Failure Rate of Cholesteatoma Removal Operations



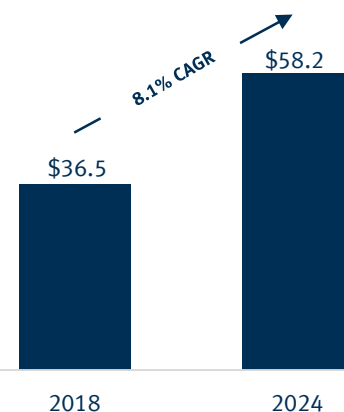
##### Other ENT Procedures

- Minimally invasive video-assisted thyroidectomy (“MIVAT”):
  - Reported pain scores were significantly lower in the MIVAT group compared to the conventional surgery group
- Minimally invasive parapharyngeal space tumor removal surgery:
  - Feasible and safe
  - Average length of hospital stay is 1.5 days

#### Benefits of Minimally Invasive ENT Procedures

- Less pain
- Shorter hospital stays
- Technologically advanced
- Minimize blood loss
- Avoid blood transfusion
- Smaller incisions or none at all
- Less anesthesia required
- Reduced risk of infection
- Less bruising
- Less scarring
- Widely available in North America
- Success rate the same or better than invasive procedures

##### Minimally Invasive Surgery Market Growth (\$ in billions)



Sources: Advocate Health, Bio Space, Boston Medical Center, ENT Today, Laryngoscope, Mayo Clinic, UChicago Medicine, UCLA Health, World Journal of Otorhinolaryngology.

# ENT Healthcare Market Overview

## Key Trends in the ENT Market

### *Technological Innovation Optimizes Diagnostic and Treatment Capabilities of Otolaryngologists*

#### Revolutionized Diagnostic Capabilities Delivered Through Technology

- Technological advancement has enabled otolaryngologists to diagnose ENT disorders with increasing accuracy
- Examples of diagnostic ENT testing performed with novel technology include:
  - Vestibular Autorotation Testing: frequently used to diagnose complex balance and vertigo disorders
  - Ear Microscopy: Otolaryngologists can zoom in to diagnose inner ear issues
  - Nasal Endoscopy: Endoscopes – thin, flexible tubes with a tiny camera and a light – have evolved to become increasingly effective
    - Otolaryngologists utilize endoscopes to see inside the nose and diagnose sinus conditions
  - Advanced Videostroboscopy: High-resolution photographs and slow motion video of a patients vocal cords during speech which vibrate at 200 times a second
    - This technology is used to evaluate vocal cord abnormalities, develop effective treatment plans, and observe vocal cord dynamics after surgery



#### Telemedicine in Otolaryngology



- Telehealth visits deliver care where ENT Treatment is not easily accessible, illustratively
  - Newborns in rural areas who fail their otoacoustic emission test are a common target
  - Rural hospitals partner with urban medical centers to give the patients access to specialized ENT treatment



- Telehealth visits save patients' time by offering reduced wait times and enable physicians to see a larger number of patients
- In limited instances, smart phone pictures can be used for otolaryngologists to diagnose and prescribe treatment for ENT issues

Sources: Brandessence Market Research, Detroit Medical Center, ENT Today, SCL Health, Talk HER.



# ENT Healthcare Market Overview

## ENT Subsector Overview – Allergy Treatment Market

### Allergy Treatment Market Overview

- Allergic reactions occur when a person's immune system responds to an external substance
- These reactions often trigger symptoms in the ears, nose, sinuses, and throat. Otolaryngologists are trained in the diagnosis and management of allergies as part of a broader scope of otolaryngology services
  - Some otolaryngologists specialize as ENT Allergists, and many clinics offer specialized ENT and Allergy care
- One of the more common conditions seen by ENT Allergists is allergic rhinitis, or hay fever, which causes sneezing, runny nose, and nasal stuffiness
- Other allergy conditions diagnosed and treated at ENT & Allergy care centers include food allergies and skin allergies

### Key Allergy Treatment Market Statistics



#### One out of Four

People worldwide are affected by allergies, making them one of the most common health problems



#### 50 million

Or more Americans experience various types of allergies each year



#### 40.0%

Of children in the United States have allergies

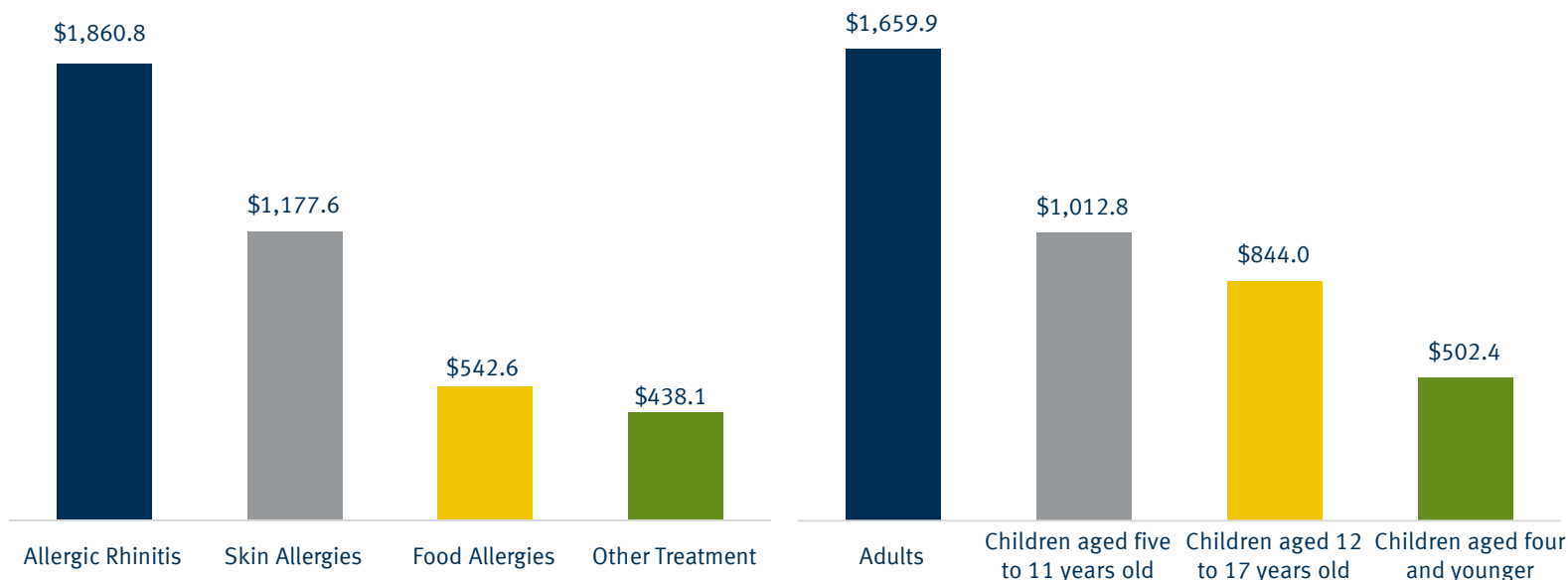


#### \$4.0 billion

Of revenue made by the allergy treatment market in 2021

### Allergy Treatment Market Revenue Distribution by Segments

(\$ in millions)



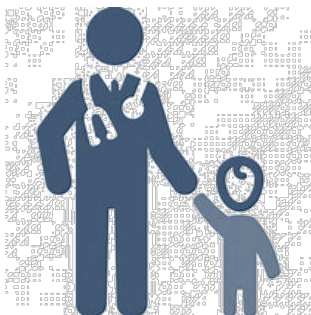
Sources: Advanced ENT & Allergy, American Academy of Allergy Asthma & Immunology, American Academy of Otolaryngic Allergy, ENT & Allergy Associates, IBIS World.

# ENT Healthcare Market Overview

## Allergy Treatment Market Growth Drivers

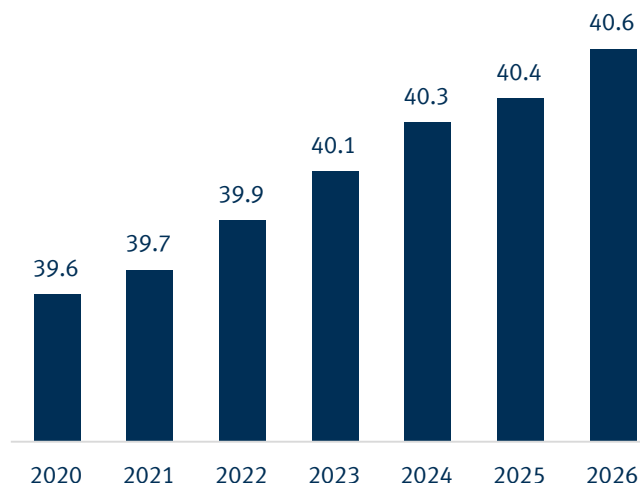
### Increasing Need of Pediatric Care

- Symptoms of allergies are most likely to arise during childhood
- Patients under 18 compose 58.7% of Allergy Treatment Market Revenue
- Researchers project that the number of children aged nine and younger will grow at an average rate of 0.4% in the U.S. each year from 2022 to 2026, creating significant opportunity for ENT Allergists with pediatric care capabilities



### Increasing Number of Children Nine and Under in the U.S.

(millions)

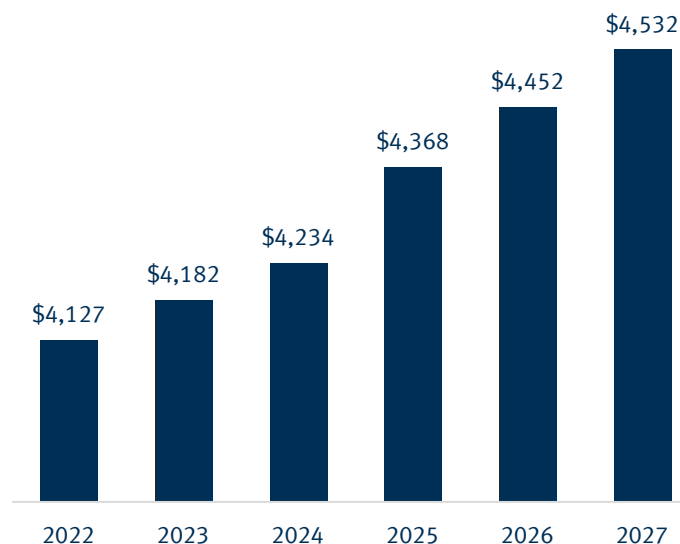


### Increasing Prevalence of Allergies

- A number of epidemiological studies have found an increase in the prevalence of allergic disorders over the past few decades
- The CDC states that the prevalence of food allergy increased by about 50.0% between 1997 and 2011 and in 2019 affected one in 13 children
- This is hypothesized to be a consequence of a more hygienic lifestyle
  - Research suggests that the reduced microbial burden faced during childhood has made humans more susceptible to allergies

### Projected Revenue Growth in Allergy Treatment Market

(\$ in millions)



Sources: American Journal of Rhinology & Allergy, Data Bridge Market Research, CDC, IBIS World, Increasing Prevalence of Allergic Rhinitis in China, Journal of Immunology: The Increased Prevalence of Allergy and the Hygiene Hypothesis, World Health Organization.

# ENT Healthcare Market Overview

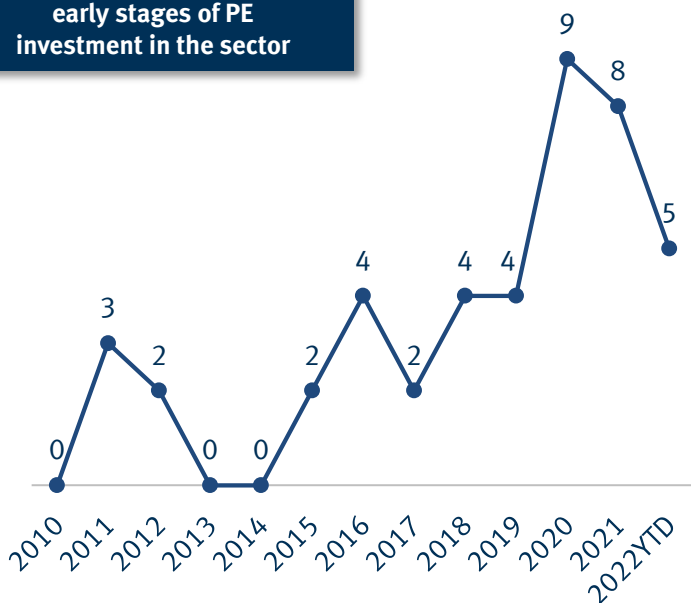
## Private Equity Investment in the ENT and Allergy Industry

### Attractive Target Sector

- 53.8% of ENT/Allergy services are offered through physician practice groups as opposed to hospitals or health systems
- Many of the ENT groups in the U.S. are small and independent with fewer than 25 physicians
- 54.3% of the practices are single-specialty ENT meaning that they are not aligned with a multi-specialty practice for support or infrastructure
- These conditions present significant opportunities for smaller groups to consolidate
- Consolidation has the promise of improving the financial performance of smaller ENT groups who will benefit from the economies of scale and a more robust corporate infrastructure
- Financial sponsors have been targeting physician specialties that can provide additive ancillary services
  - ENT/Allergy practices have a number of natural ancillary opportunities through ASCs, allergy and audiology testing, ENT Pediatric centers, and more


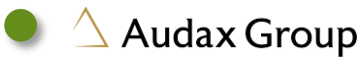

### Announced ENT and Allergy Deal Count, 2010-2022YTD

Deal activity indicates early stages of PE investment in the sector

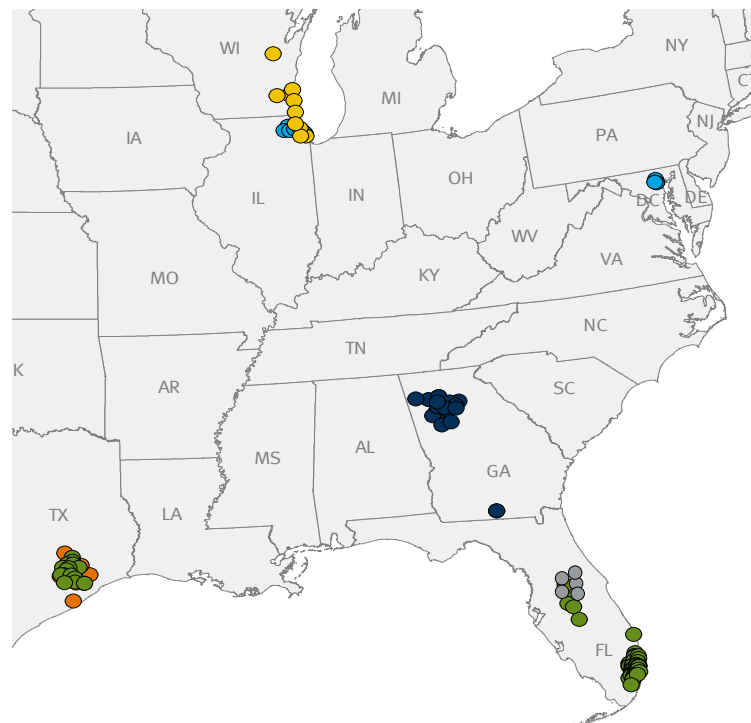


Sources: Epstein Becker Green, PitchBook, Vector Medical Group.

### Top Investors in U.S. ENT/Allergy Deals, '20-'22YTD

Investor	Investment Count
 <b>SHORE</b> Capital Partners	5
 <b>Audax Group</b>	2
 <b>CANDESCENT PARTNERS</b>	2
 <b>EXCELLERE PARTNERS</b>	2
 <b>NEW HARBOR</b> CAPITAL	1
 <b>BEEKMAN</b> GROUP	1

### Footprint of Top Investors in U.S. ENT/Allergy Deals



## Provider Coverage



**Patrick Krause**  
Managing Director

**Address:**  
One Montgomery Street, FL 37  
San Francisco, CA 94104

**Phone:** (415) 364-7174

**Email:** krausepa@stifel.com

### Focus at Stifel

Patrick is a senior investment banker at Stifel where he focuses on healthcare services transactions. He specializes in M&A and capital raising, working closely with key stakeholders across a range of healthcare industry sub-verticals including specialty physician groups, behavioral healthcare, and other healthcare services enabling the care of patients.

### Career Background

Over the past 15+ years, Patrick has had increasingly senior roles in healthcare and investment banking. Most recently, Patrick led the Healthcare Services practice at MHT Partners. Prior to joining MHT Partners, Patrick worked for Novartis' Molecular Diagnostics group (now part of Grifols). From 2003 to 2011, he worked for Deloitte, where he served many of the firm's largest healthcare clients. Through these engagements, Patrick provided an array of strategic, financial, and technology advisory services to healthcare leaders at hospitals, commercial payors, technology, and life sciences companies.

### Career Background



MBA, University of California – Haas School of Business

BA, Economics, Organizational Studies, University of Michigan, Ann Arbor

## Selected Provider Experience

  
Has Been Acquired by  
  
Advisor to Seller  
December 2021

  
Has Been Acquired by  
  
Advisor to Seller  
June 2021




  
Has Been Acquired by  
  
a portfolio company of  
  
Advisor to Seller  
June 2020\*

  
Has Been Acquired by  
  
a portfolio company of  
  
Advisor to Seller  
November 2019\*

  
Has Been Acquired by  
  
a portfolio company of  
  
Advisor to Seller  
April 2020\*

  
Senior Secured  
Credit Facilities  
Financial Advisor  
December 2018\*

  
Has Been Acquired by  
  
Advisor to Seller  
May 2018\*

  
Has Been Acquired by  
  
a portfolio company of  
  
Advisor to Seller  
March 2018\*

  
Has Been Acquired by  
  
a portfolio company of  
  
Advisor to Seller  
February 2018\*

  
Has Been Acquired by  
  
a portfolio company of  
  
Advisor to Seller  
July 2017\*

  
parent company of  
  
Has Acquired  
  
Advisor to Buyer  
April 2016\*

  
Has Been Acquired by  
  
a portfolio company of  
  
Advisor to Seller  
January 2016\*

  
Has Been Acquired by  
  
Advisor to Seller  
November 2015\*

\*Worked on transaction while at a previous, unaffiliated firm.

## Health Care Services & Health Tech Practice

### Leadership



**Alena Antigua**  
Managing Director  
Technology  
(312) 423-8220  
alena.antigua@stifel.com



**Kojo Appenteng**  
Managing Director  
Technology  
(630) 926-2136  
appentengk@stifel.com



**Chip Bierbaum**  
Managing Director  
Pharma Services  
(917) 597-5743  
bierbaumc@stifel.com



**Jim Hesburgh**  
Managing Director  
Services  
(917) 302-7695  
hesburghj@stifel.com



**Patrick Krause**  
Managing Director  
Services  
(415) 722-6514  
krausepa@stifel.com



**Alex Halpern**  
Director  
(203) 912-4366  
halperna@stifel.com



**Ben Maddison**  
UK Director  
+44 (0) 207 710 7624  
ben.maddison@stifel.com



**Harvinder Minhas**  
Director  
(718) 355-0541  
minhash@stifel.com



**Charles Simon**  
Director  
(757) 270-5628  
simonch@stifel.com

### Sector Coverage



#### Alternate Site

- Labs
- Infusion Sites
- Physical Therapy
- Post-Acute Care



#### Behavioral Health

- Autism
- General Psychology
- Mental Health
- Substance Abuse



#### Health Tech

- Data Analytics
- Digital Health
- Software/SaaS
- Tech-enabled Services



#### Payor Services

- Managed Care
- PBMs
- TPAs
- Worker's Compensation



#### Pharma Services

- Clinical Trials
- Manufacturing
- Marketing
- Supply Chain



#### Physician Groups

- Dental Services
- Hospital-Based
- Multi-Site
- Veterinary Services

### Product Offering

M&A  
Advisory

Equity Capital Raising

Debt Capital  
Raising

Restructuring Advisory

Fairness  
Opinions



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