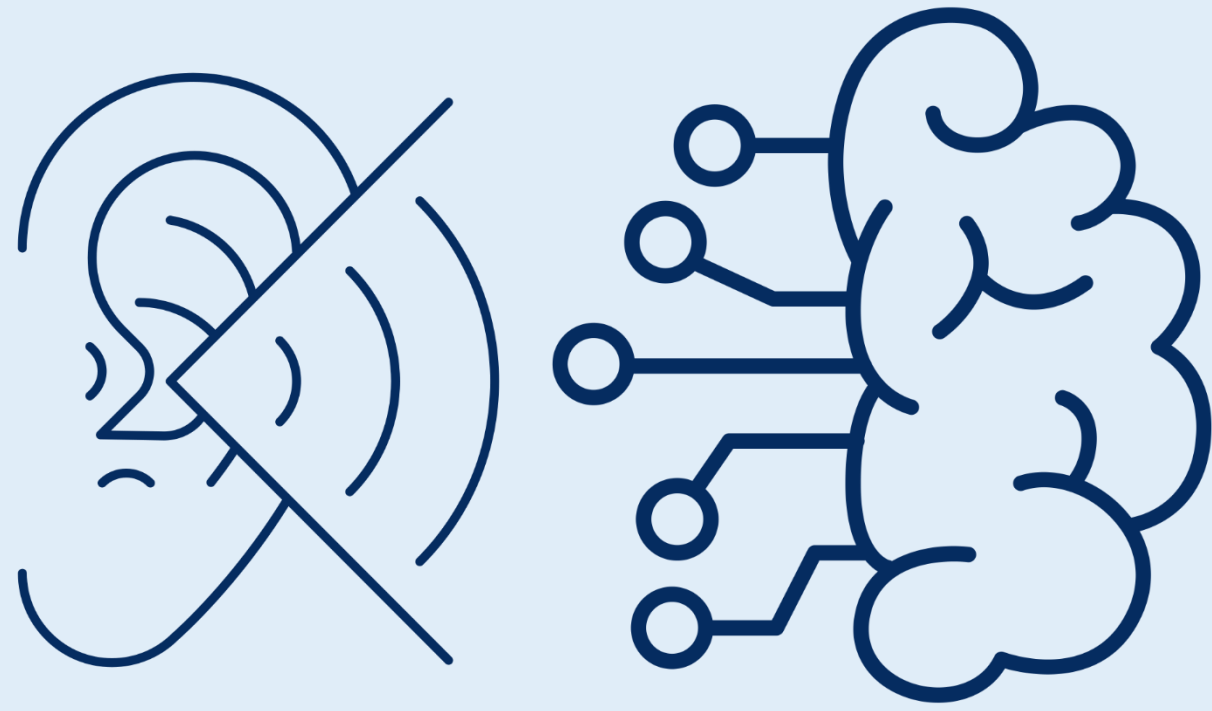


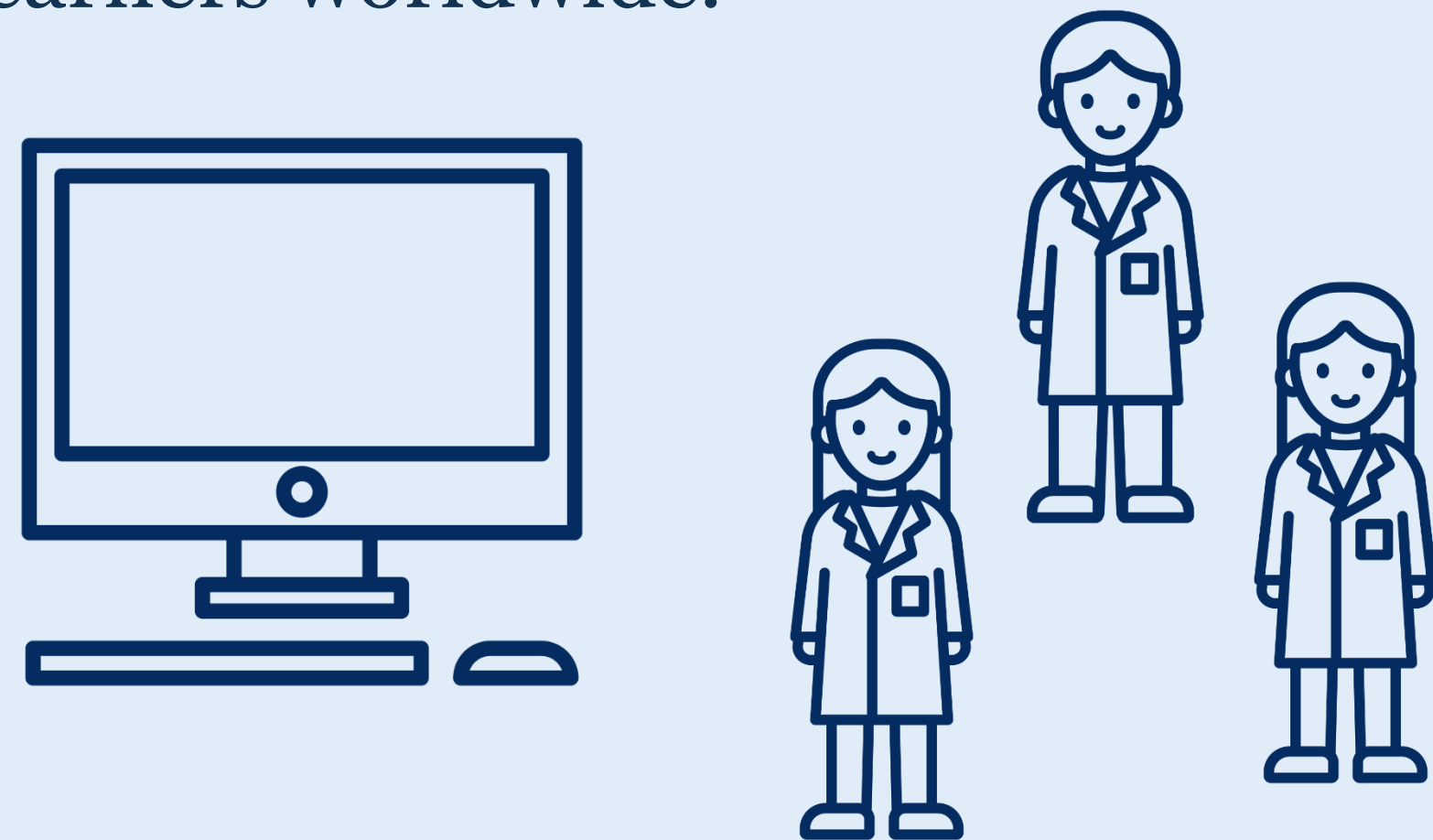
1. University of Michigan Medical School, 2. University of Michigan, Department of Otolaryngology, 3. University of Michigan, Department of Pediatrics, 4. University of Michigan, Department of Audiology

Background

- Early identification of hearing loss is **crucial** to ensure appropriate interventions begin during critical periods of brain development.



- However, a formal training course on hearing loss in children has not been available in a **self-paced, free, open online learning format** for medical learners worldwide.



Objective

- To address this gap, a **multidisciplinary team** of otolaryngologists, pediatricians, audiologists, speech pathologists, physical therapists, and curriculum experts created a new online course on pediatric hearing loss for medical learners worldwide.



Methods

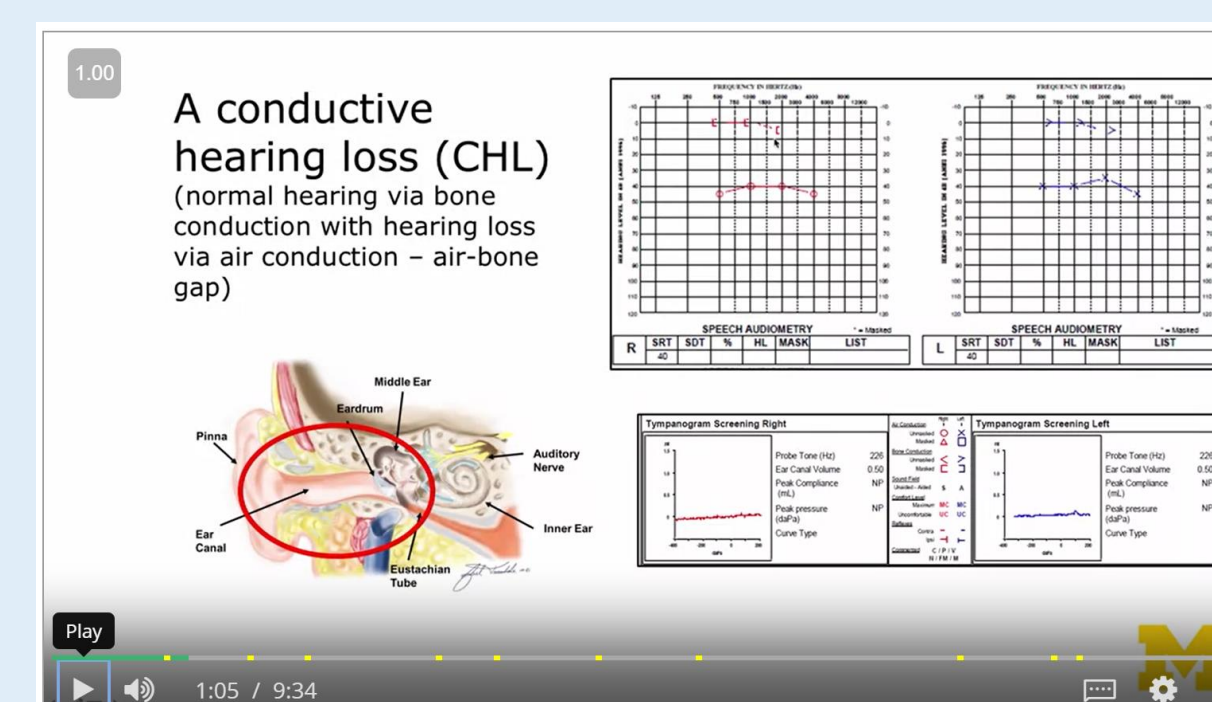
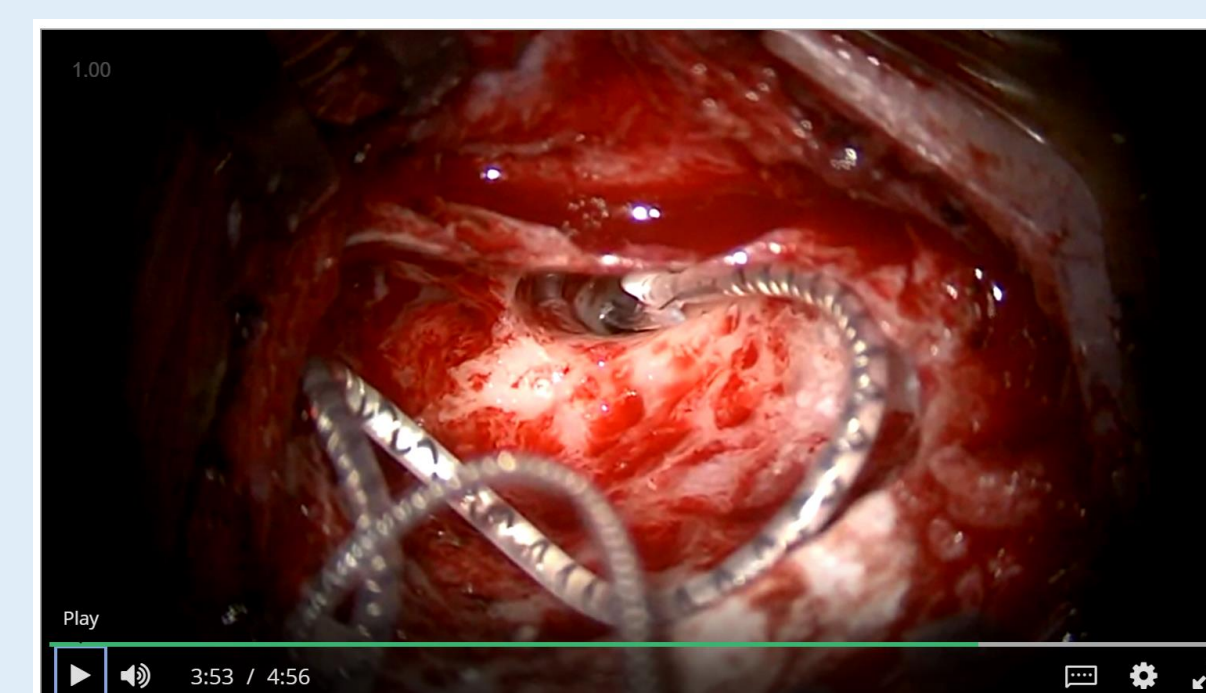
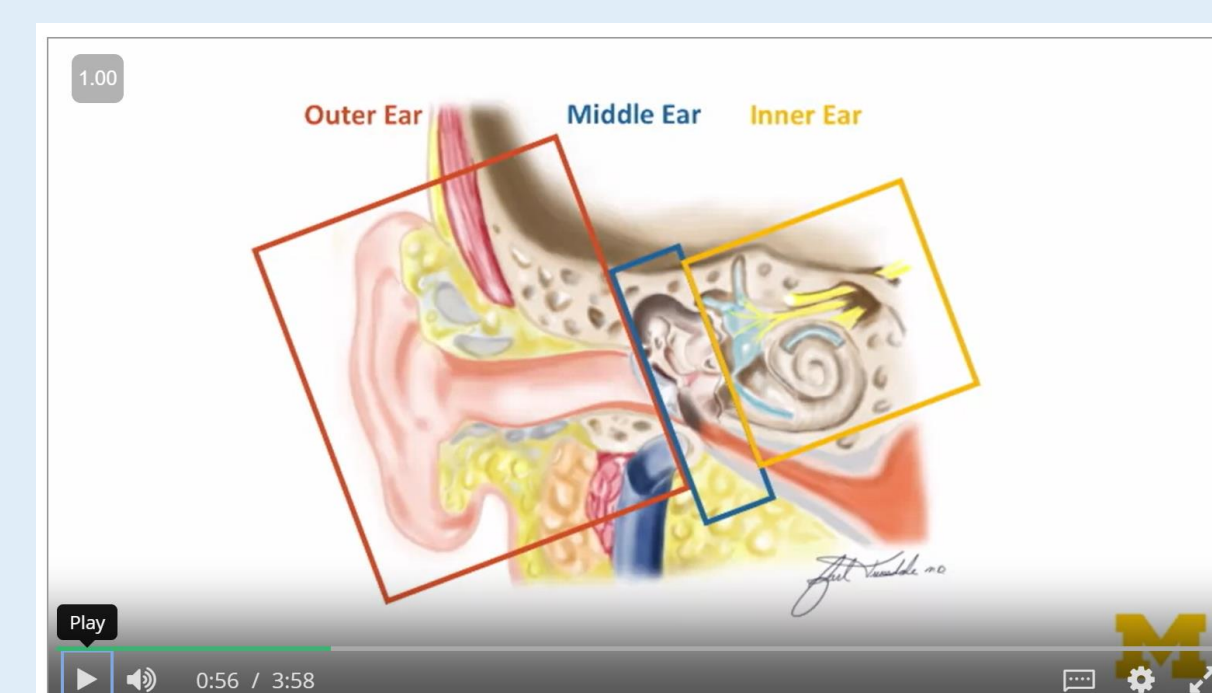
- Course development began in February 2019 and was completed in May 2020. Seventeen experts, emphasizing inter-professionalism in content delivery, provided high-definition video lectures and demonstrations. The course was hosted on the largest e-learning platform, Coursera.

Results

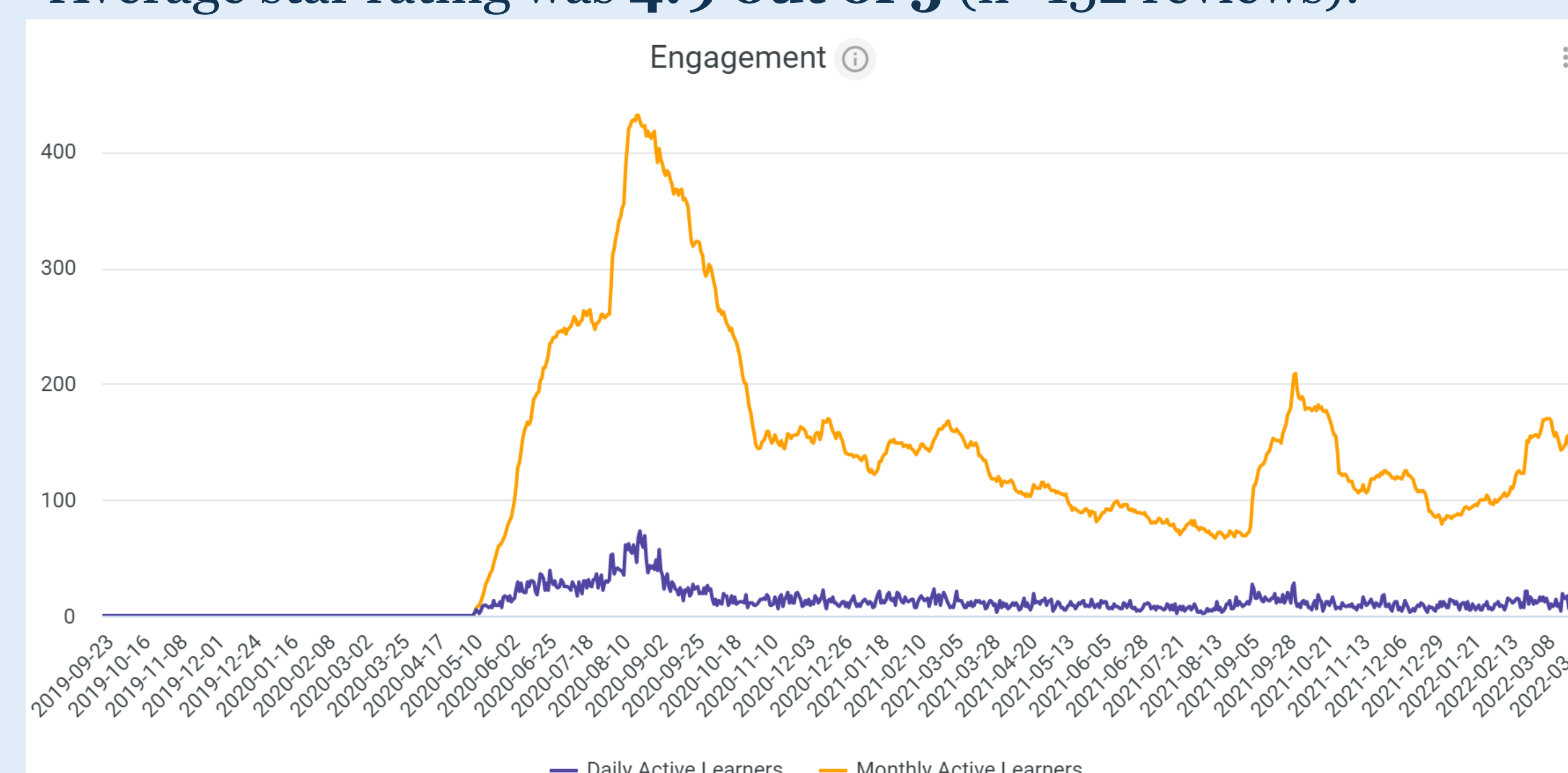
- The course spanned five modules:

- 1 •Ear Anatomy
- 2 •Hearing Loss Diagnosis
- 3 •Impact on Speech and Language
- 4 •State of the Art Interventions
- 5 •Pediatric Vestibular System and Balance

- Video lectures and demonstrations included a multi-faceted tour of ear anatomy, footage of children undergoing hearing testing, and operating room film of tympanostomy tube insertion and cochlear implants. Content also included steps for interpreting basic audiograms, an overview of early screening programs, interviews with Deaf/Hard of Hearing children, and an overview of the public health/educational infrastructure supporting Deaf/Hard of Hearing children.

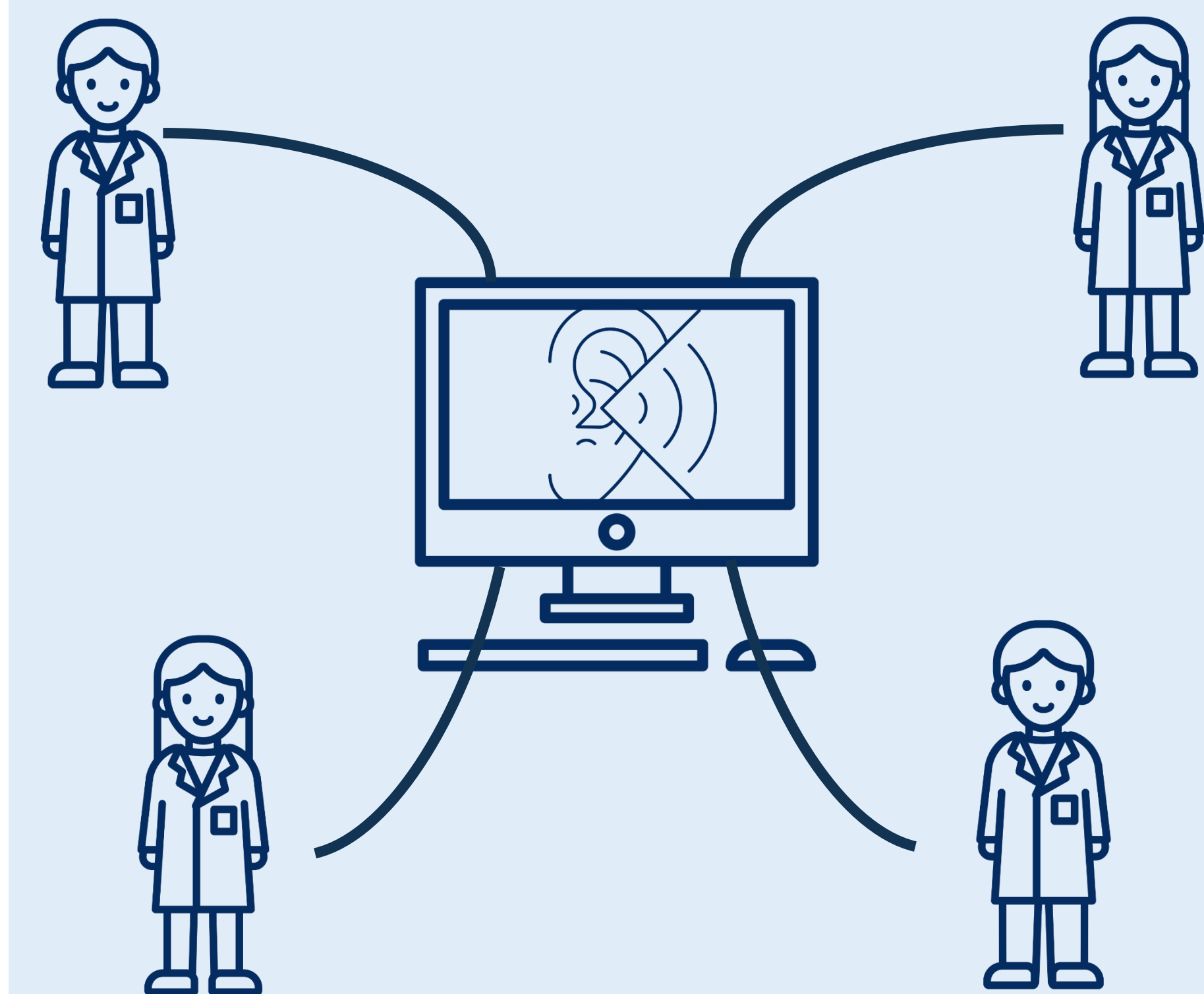


- The course was approved for **Continuing Medical Education (CME) credits** and was the first course to be approved for the **American Board of Pediatrics Maintenance of Certification Part II** credits at this university.
- As of April 2022, **5,006** learners enrolled in the course, **2,959** started the course, and **1,188** fully completed the course. Based on available learner metrics, 70% were between the ages 25-44, 62% were female, and ~20% were from the U.S. The course achieved the top 20 most popular MOOC in July 2020, with learner engagement peaking on 08/2020 and again in 10/2021. Average star rating was **4.9 out of 5** (n=152 reviews).



Lessons Learned & Next Steps

- We created a free, global online course that provides a broad overview of pediatric hearing loss that can be applied to various medical educational settings.



- Our multidisciplinary approach addresses a substantial medical education gap and can serve as a model for developing other online medical education courses.

Acknowledgements

- Thank you to the Center for Academic Innovation at the University of Michigan for their expertise in helping to design this course as well as all those individuals who developed additional content and contributed their time to the development of this course.



Link to
course
here!

