

# UTILIZING SINGLE-USE RHINOLARYNGOSCOPES FOR FEES: A PRE-/POST-ADOPTION CAPABILITY ASSESSMENT

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## INTRODUCTION AND OBJECTIVE

In other endoscopy specialties, single-use (SU) scopes have shown to save significant time per procedure<sup>1,2</sup> by eliminating reprocessing and repairs, enabling physicians to see more patients.<sup>3</sup> For hospital-based speech rehabilitation departments, flexible endoscopic evaluation of swallowing (FEES) exams can be ordered on short notice, meaning the equipment needs to be mobile and readily accessible.<sup>4</sup> Availability concerns with reusable (RU) rhinolaryngoscopes may impede the timing and overall quality of patient care.

This study aimed to evaluate procedural volume implications pre- and post-adoption of SU rhinolaryngoscopes in a hybrid model for FEES.

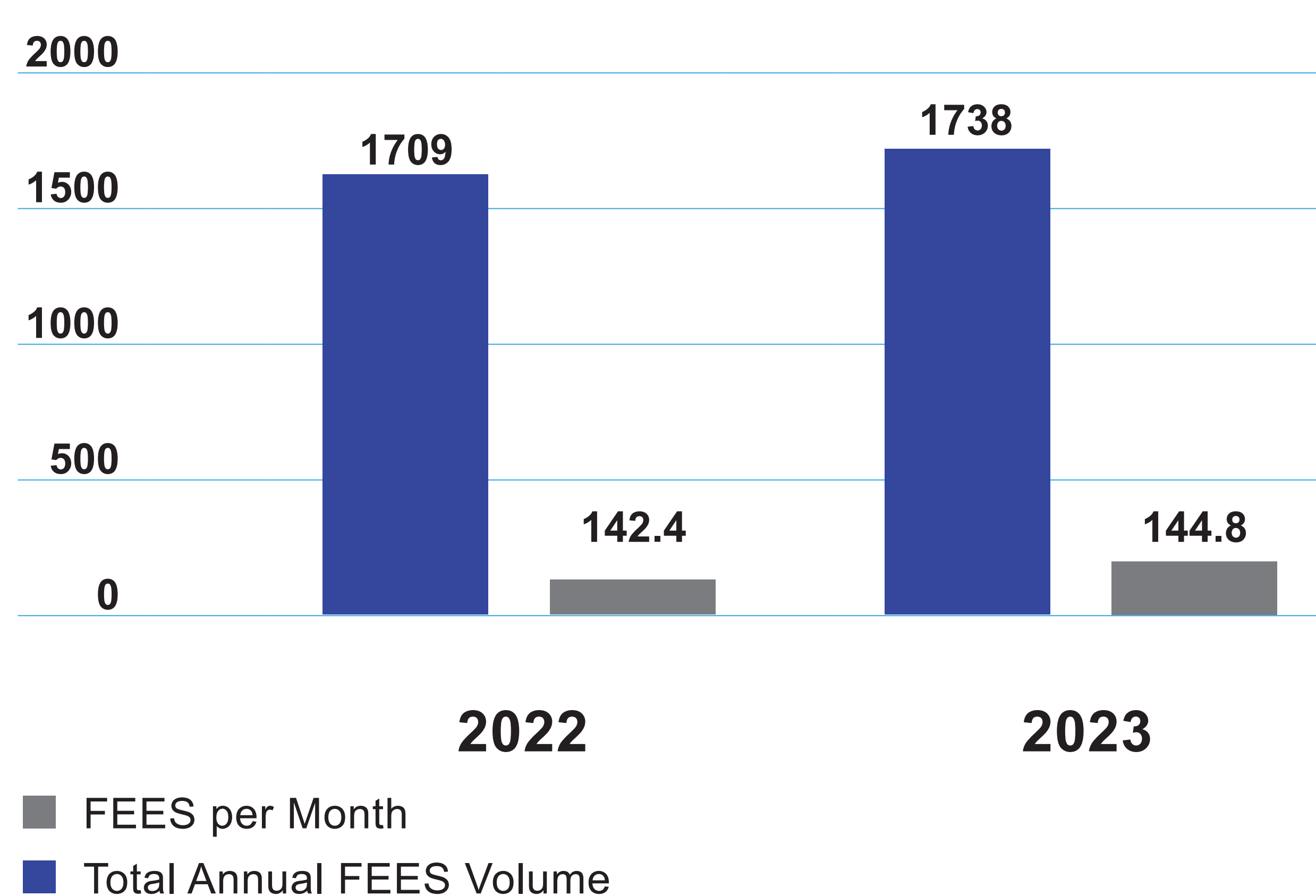
## METHODS

- In December of 2022, a large community-based hospital adopted a hybrid use of the SU Ambu aScope 4 RhinoLaryngo and Olympus RU rhinolaryngoscopes.
- Retrospective analysis of FEES volumes were calculated as well as total RU rhinolaryngoscope repair downtime.

## RESULTS

- Annual FEES caseloads from 2022-2023 and RU scope downtime results can be found in the figures below.
- **Despite the number of RU scope repairs and reduced employee support, the hospital maintained the same FEES caseload with the hybrid SU system** compared to the previous year, with 1,738 FEES exams completed in 2023, amounting to 144.8 exams per month.
- When strictly utilizing the RU scope platform in 2022, the hospital performed 1,709 FEES exams, amounting to 142.4 exams per month.
- The hospital was **without at least 1 RU rhinolaryngoscope for 37% of the working calendar year in 2023.**

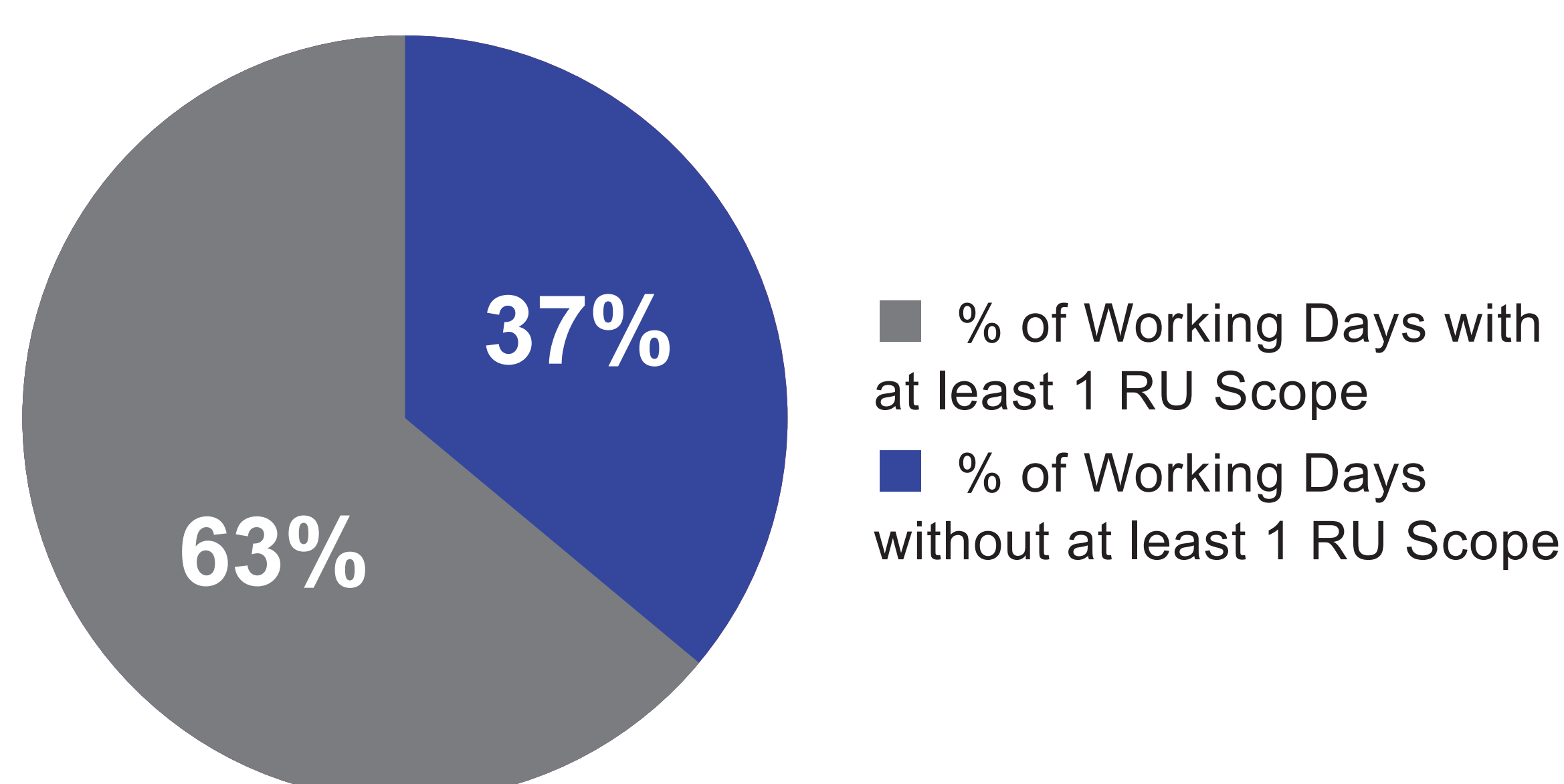
Figure 1. Annual FEES Procedure Volume



## DISCUSSION

- SU endoscopy continues to attract physicians and facilities across specialties due to the simplified workflow and ease of use associated with a portable, disposable alternative to RU scopes. SU endoscopes have been shown to save significant time per procedure and allow facilities to increase the number of patients they can see in a given working day.<sup>3</sup>
- This large community-based hospital adopted SU rhinolaryngoscopes in a hybrid model for FEES exams to help combat RU scope availability issues related to reprocessing and repair turnaround time. With frequent reprocessing staff turnover and shortages, which strained the remaining staff and increased the length of time for reprocessing, SU scopes enabled this facility to maintain its average FEES caseload compared to the platform previously deployed.
- Despite one SLP on leave for 3 months, and at least one RU rhinolaryngoscope out of service due to damage and repair for 37% of the year (93 days), the SLPs were able to perform 1,738 FEES exams in 2023 (or 144.8 FEES per month).
- Additionally, incorporating SU rhinolaryngoscopes into their department allowed for an expansion of the FEES training course to three participants, meaning there were more FEES-competent clinicians available to perform exams when needed.

Figure 2. RU Rhinolaryngoscope Repair Downtime



## CONCLUSION

Incorporating SU rhinolaryngoscopes alleviated scope availability and workflow issues, as the same volume of FEES exams were performed with the SU hybrid system despite RU scope repairs and staff leave. Additionally, SU scopes mitigated issues related to sterile processing staff turnover and labor shortages, which tends to delay RU rhinolaryngoscope turnaround. Lastly, the introduction of SU scopes enabled expansion of FEES competency training courses, enabling more SLPs to perform FEES when necessary.

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