

A QUALITY IMPROVEMENT STUDY ON THE IMPACT OF SPEECH RECOGNITION

ON THE LENGTH, CONSISTENCY AND TIMELINESS OF CLINICAL NARRATIVE NOTES

ABI KATZ, DO, MS, HMDC | AMY MOSS, DO, MBA, HMDC, FACOI | CHAD M. HINER, RN, MS | GP CIANCIO

INTRODUCTION

Amedisys leveraged Speech Recognition (SR) to improve the quality, consistency, and timeliness of clinical narrative notes.

Throughout 2022, Amedisys conducted a Quality Improvement Study to assess the effectiveness of SR in documenting the narrative portion of the Certification of Terminal Illness (CTI). The results were measured across content quality, physician experience, and meeting documentation requirements for reimbursement.

Amedisys partnered with nVoq—an industry leader in speech recognition solutions for home health and hospice markets.

OBJECTIVES

- Understand and measure the impact of SR on narrative note quality
- Understand and measure the impact of SR on physician satisfaction and work-life balance relating to documentation
- Measure the effectiveness of SR in reducing Medicare claim denials and passing documentation requirements
- Implement automated-audit function within SR to guide documentation completeness

BACKGROUND

Medicare scrutiny and denials based on “CTI does not support eligibility” or “documentation does not support medical necessity” create a significant financial and operational burden to hospice agencies.



Detailed physician CTI narratives are essential for eligibility and support high quality, culturally sensitive, patient-centered care.

Amedisys wanted to improve documentation quality (which they knew would have far reaching downstream positive impact on patient care and operational efficiency) while not increasing the burden on physicians.



METHODS

A phased approach helped drive adoption and allowed for a before and after view of the impact of SR.

Phase 1: Introduced SR to 21 physicians.

Compared narrative content before and after SR using key word search for specific narrative elements. Subsequently, SR was offered to all physicians.

Phase 2: Developed an automated-audit function within SR which searches for presence or absence of five key elements: PPS, ADLs, Anthropomorphic Measures, Disease Progression and Prognostic Statement.

Automated audits were used by physicians while dictating and by PI auditors during documentation review.

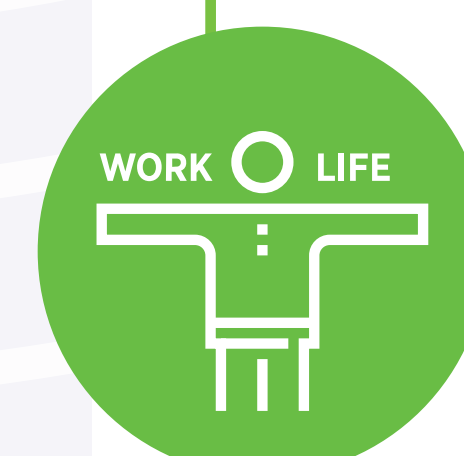


RESULTS

Comparing narrative content created by typing with SR (N=7327), SR narratives showed significant increase in length (42%), inclusion of PPS (10%), use of Prognostic Statements (39%), inclusion of anthropomorphic metrics (12%), and statements describing Disease Progression (35%), all comparisons significant at $p < 0.01$; a nonsignificant 6% increase in inclusion of ADLs was also observed.

Nearly 2000 narratives per week (N=51, 292) over 26 weeks were reviewed using batched automated-audit review.

Results were graphed weekly using Statistical Process Control (SPC) p-charts (proportion “failed”). Interventions were based on failure type and pattern. Iterative PDSA cycles demonstrated an error rate reduction from 15% to 5% ($p < 0.01$) in 6 months and to less than 3% ($p < 0.01$) in 9 months.

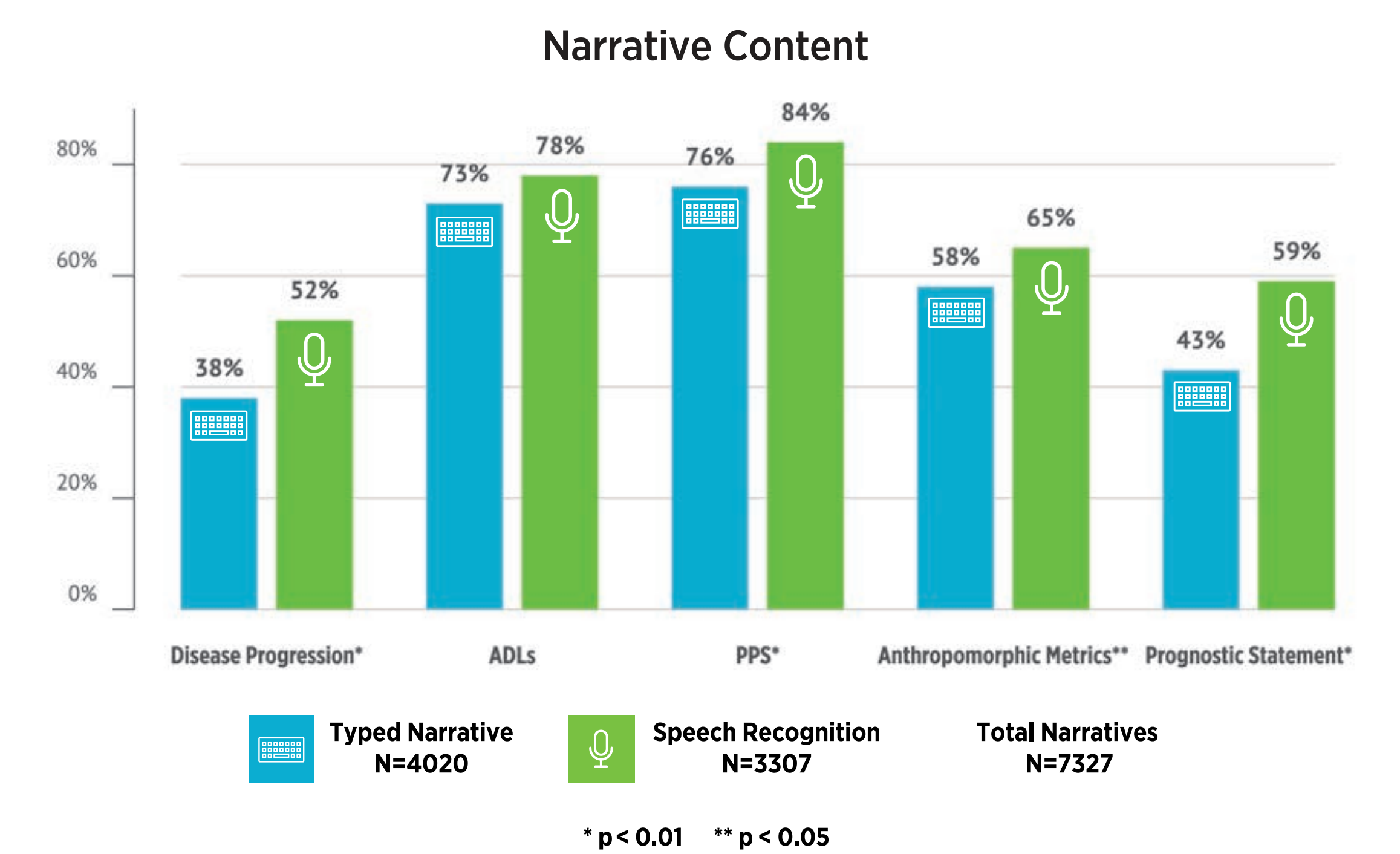


Qualitatively, physicians who represent diverse ethnic, cultural and social backgrounds, reported increased job satisfaction and improved work-life balance.

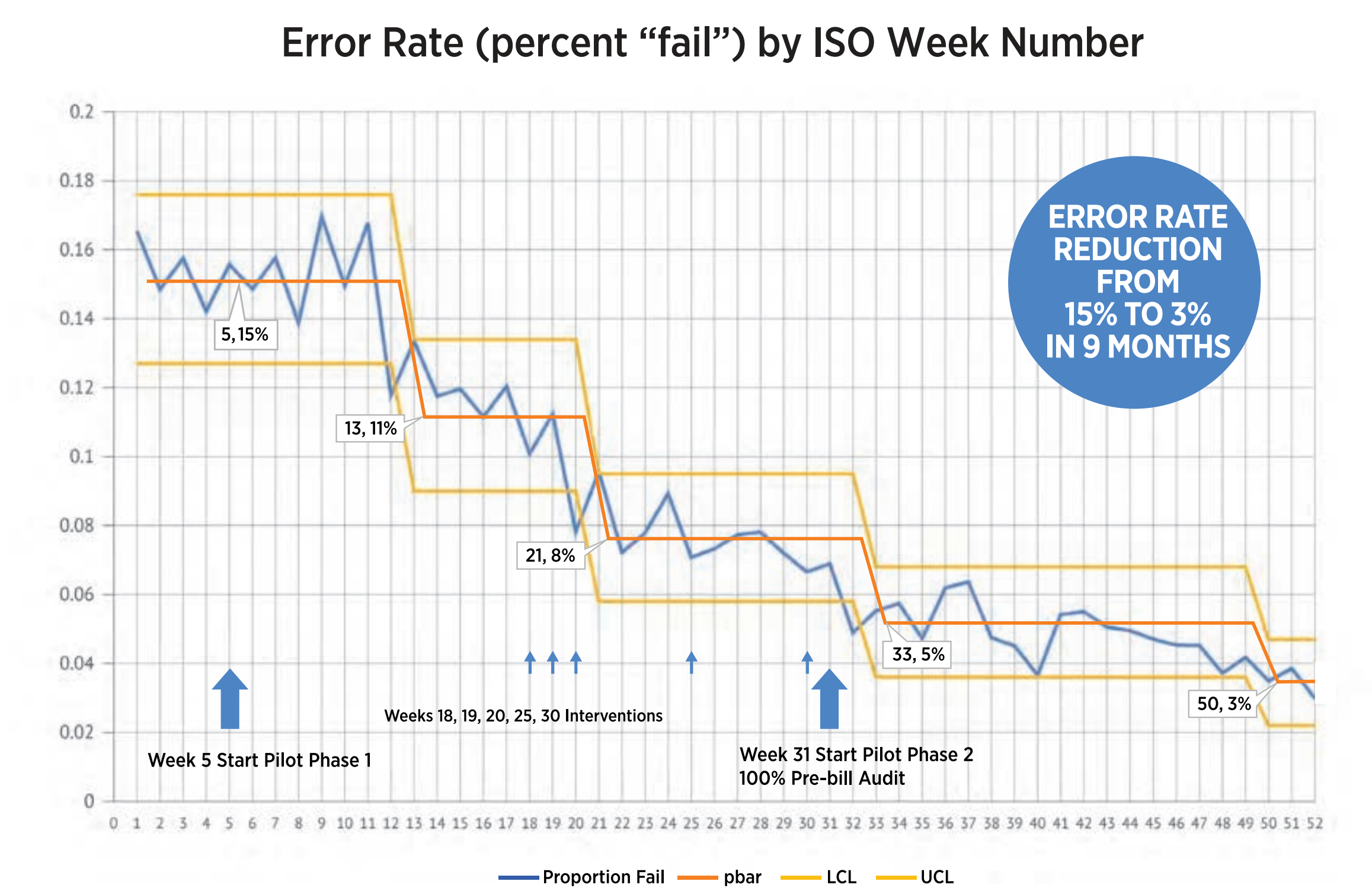
ASK ABOUT AUTOMATED-AUDIT FUNCTION **NoteAssist**

OUTCOMES

Narrative length increased by 42% (character count) with statistically significant and clinically meaningful content, qualitative improvement in physician experience, and narrative error rate reduction.



- ↓ 50% Reduction in Documentation Time
- ↑ Increased Job Satisfaction
- ↑ Improved Work-Life Balance



SPEECH RECOGNITION IMPACT

Improved compliance with CMS requirements for potential downstream revenue protection

Increased clinician satisfaction

Increased accuracy and efficiency

Reduced internal write-offs