

## INTRODUCTION

Migraine is a leading cause of disability worldwide and remains underdiagnosed and undertreated despite its substantial impact on quality of life, productivity, and mental health. Although effective preventive therapies are available, fewer than two thirds of patients who qualify for preventive treatment receive it, reflecting persistent gaps in diagnosis, guideline awareness, and treatment implementation.

Recent updates from the American Headache Society now support CGRP-targeted therapies as first-line preventive options, representing a meaningful shift in migraine care. Nurse practitioners, who deliver care to more than one billion patients annually, are ideally positioned to translate these recommendations into practice. This educational initiative was designed to address persistent knowledge, competence, and confidence gaps related to migraine diagnosis, trigger evaluation, and preventive and acute treatment selection.

### Learning Objectives

- Review the burdens associated with migraine and ways in which unmet needs in migraine management contribute to morbidity and quality of life outcomes.
- Examine the role of CGRP in the pathophysiology of migraine and how this role relates to the mechanism of action of CGRP-targeting therapies.
- Apply current diagnostic criteria and evidence-based recommendations to the effective diagnosis and management of patients with migraine.
- Contrast different CGRP-targeting therapies available in order to optimize patient-centered migraine care.

## PROGRAM OVERVIEW

**Enduring On-Demand Activity**

- Dates: November 21, 2024 – November 20, 2025
- Accreditation: 1.0 Hour CE (4 x 0.25)

### 4 Microlearning Case Scenario Activities:

- Mary Jackson:** An undiagnosed patient with chronic migraine highlights how occupational triggers and social determinants delay diagnosis and care.
- Adam Ramirez:** A patient with frequent migraines illustrates medication overuse headache and the role of CGRP-targeted therapy in reducing rebound.
- Julianne Martin:** A single mother with chronic migraine demonstrates the need for preventive-focused, practical treatment strategies.
- Ron Wesley:** A working adult with episodic migraine shows how occupational triggers and limited access hinder treatment optimization.

**Point-of-Care Tool**

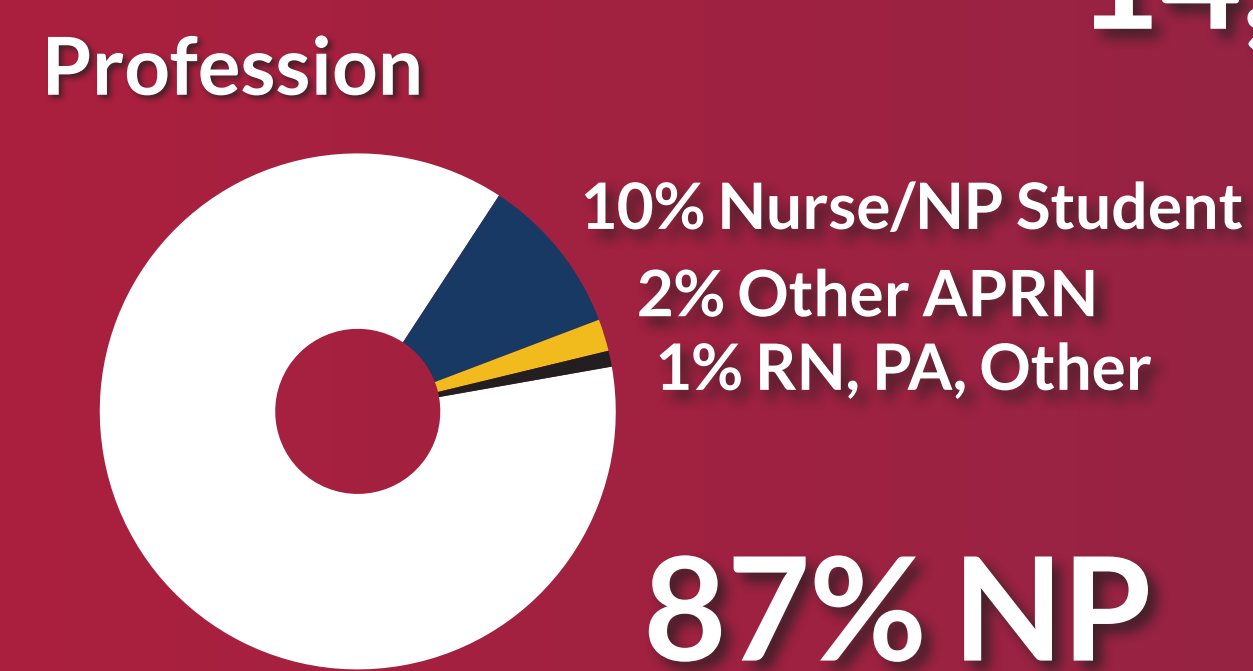
- Articulate-Based Resource for Clinicians
- Launch: November 21, 2024
- Unaccredited

## METHODS

Learners completed pre- and post-activity knowledge, competence, confidence, and evaluation questions aligned with learning objectives. Paired analyses were conducted using McNemar and Wilcoxon tests to assess changes ( $P \leq 0.05$ ). Data were aggregated using Microsoft Excel and analyzed using IBM SPSS Statistics v31.0.0.0. Effect size was calculated to quantify magnitude of change, with values of 0.10 indicating small, 0.30 medium, and 0.50 large effects.

## DEMOGRAPHICS

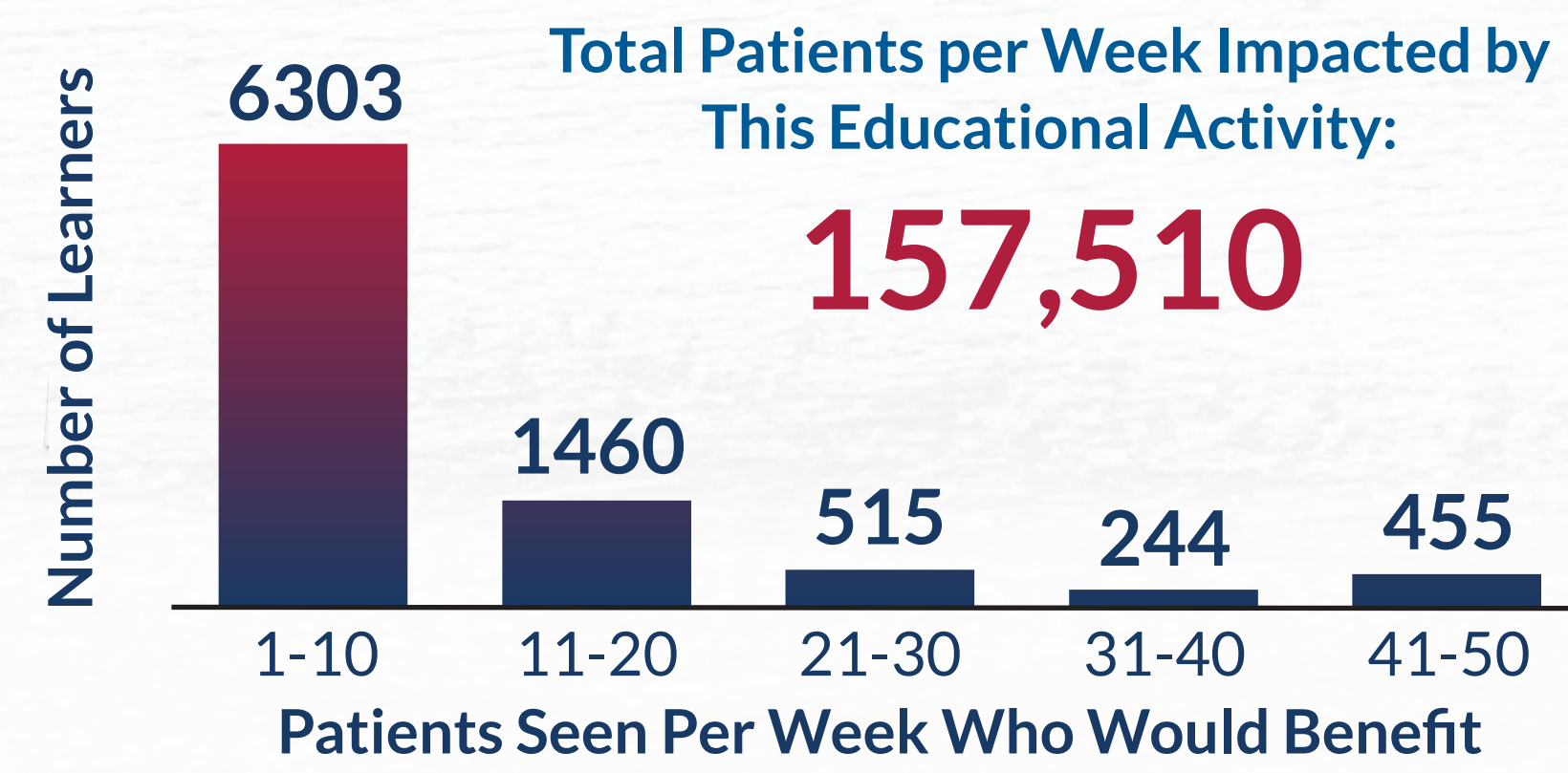
Registrations **14,335** → Completions **10,872**



- Over 12-months, projected participation for completions **exceeded expectations by more than threefold.**
- The majority of participants were practicing nurse practitioners, most commonly in primary care settings.

## RESULTS: PATIENT IMPACT

During a typical week in your clinical practice, approximately how many patients do you see that would benefit from information presented in this educational activity? (N=9064\*)

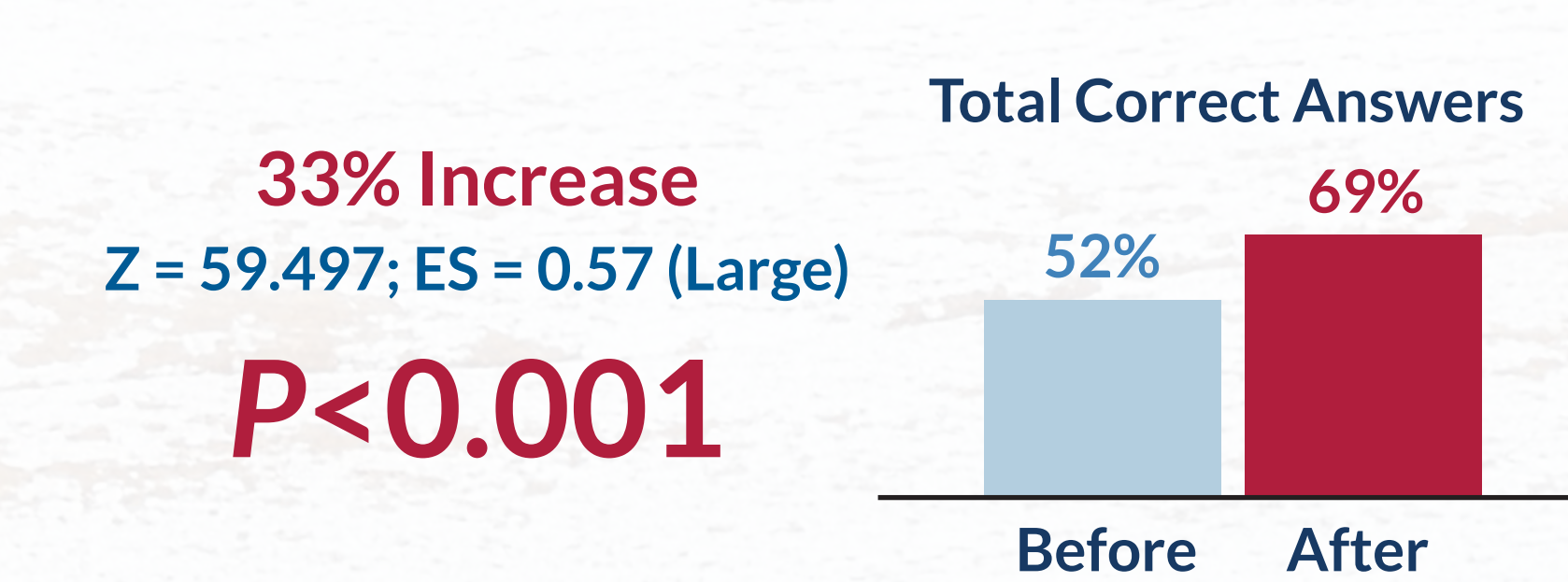
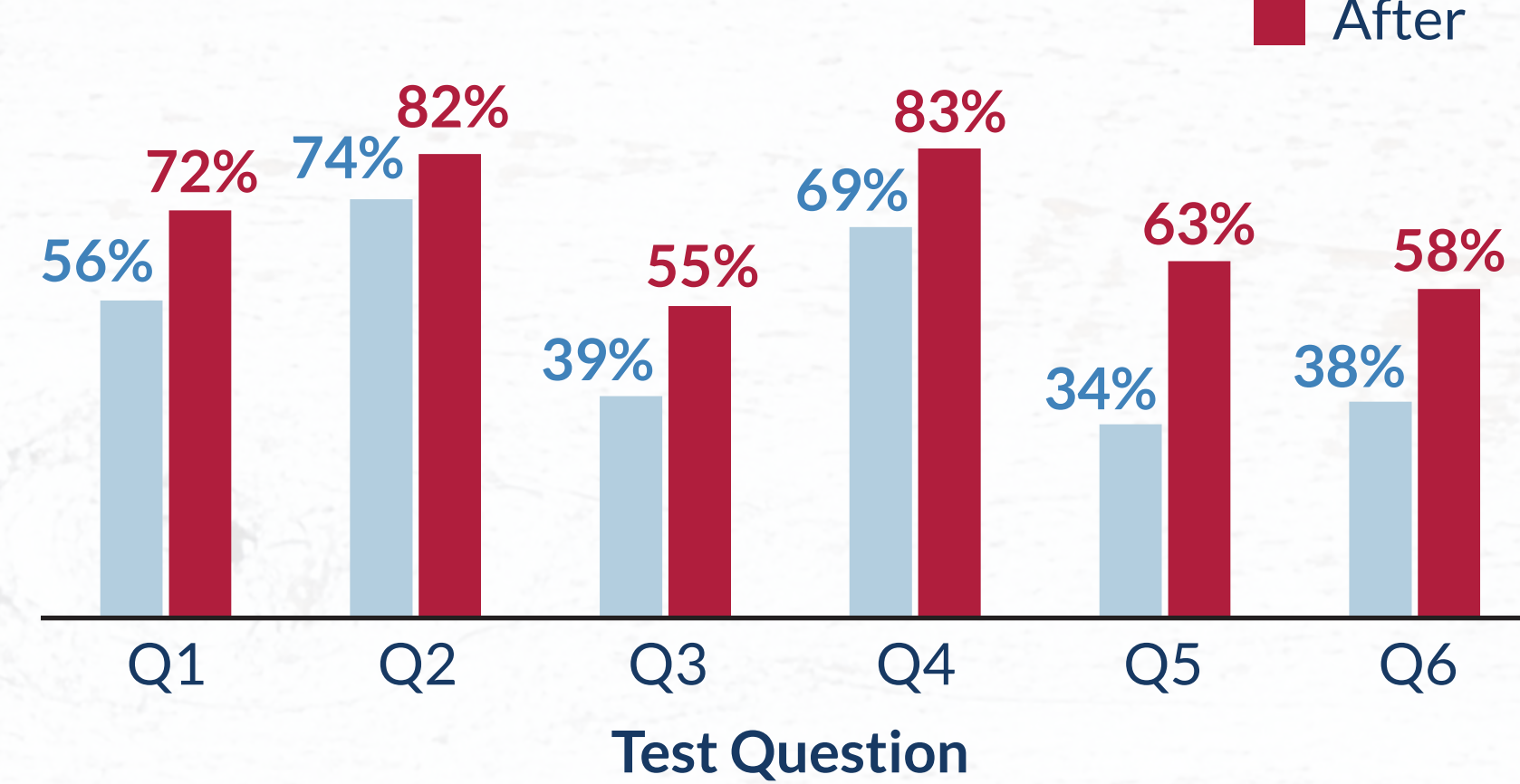


\*Learners who selected "N/A I don't provide direct patient care" were excluded.

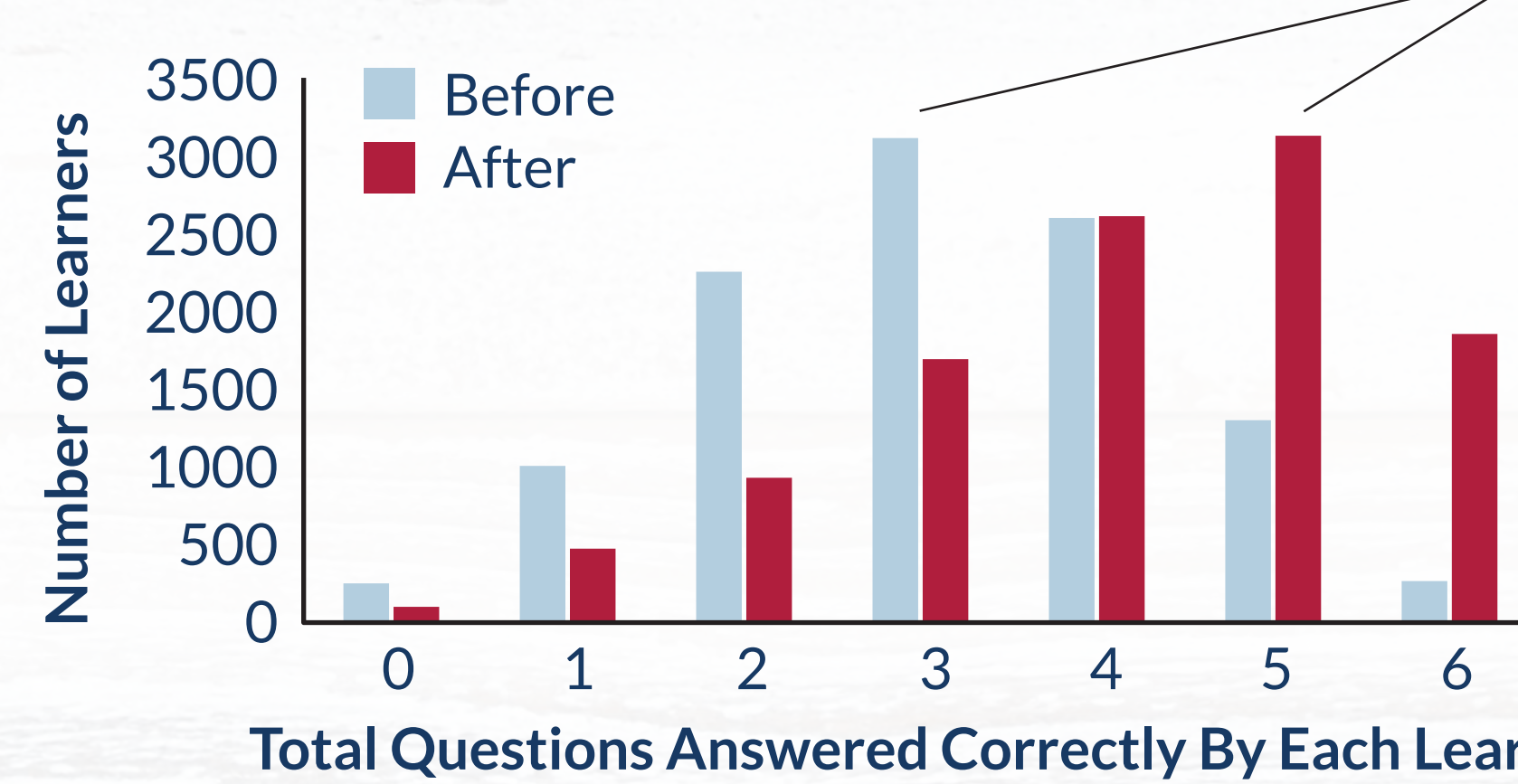
Migraine affects over 37 million Americans, with an estimated 1 in every 4 households having a member living with migraine.

## RESULTS: CHANGE IN KNOWLEDGE

### Pre/Post Outcomes Summary



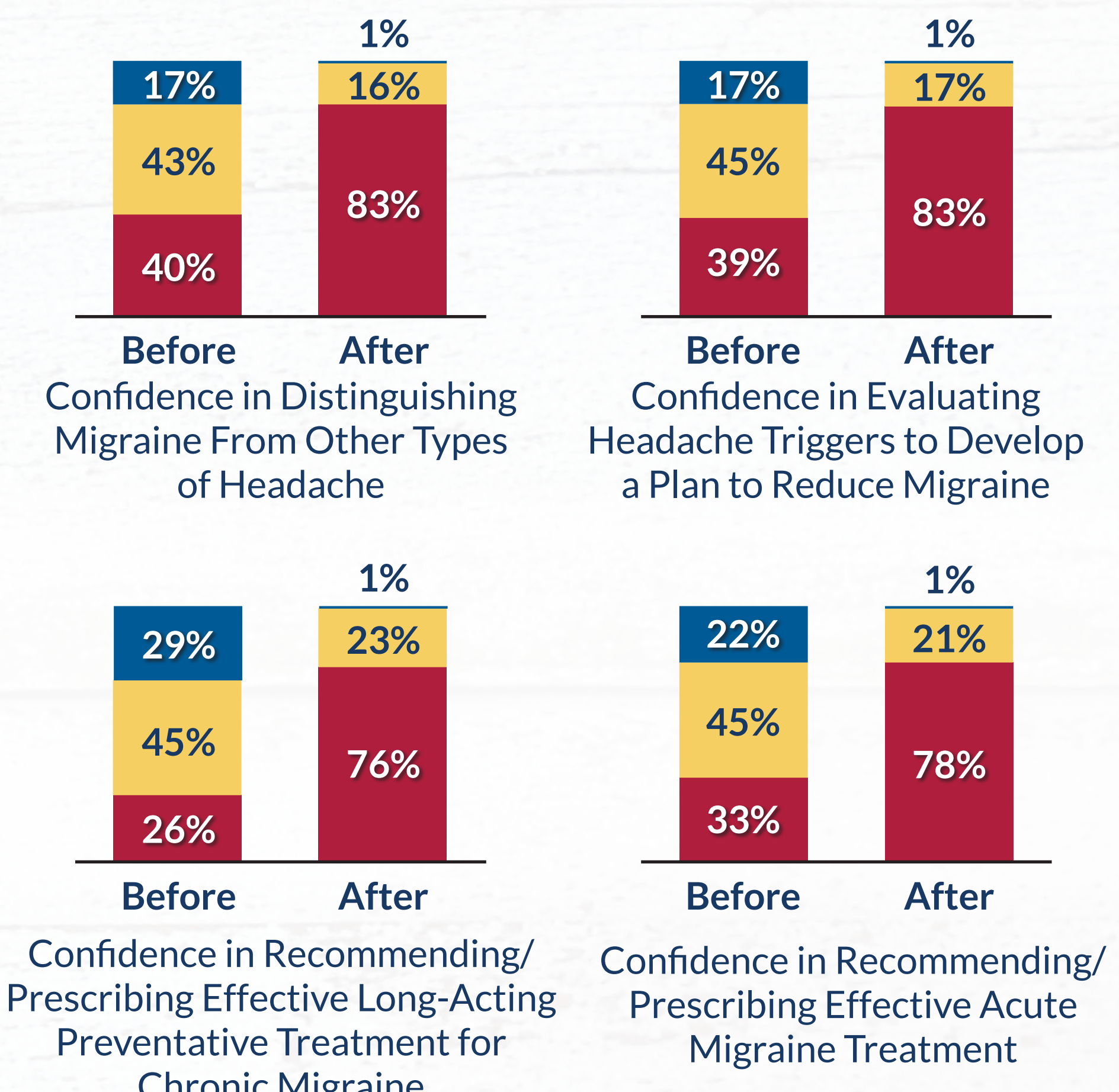
### Change in Total Correct Answers



Prior to the activity, most learners got **only 3 out of 6 questions correct**, whereas after the activity, most got **5 out of 6 questions correct.**

## RESULTS: CONFIDENCE GAINS

Extremely Confident or Confident  
Neutral  
Not Very Confident or Not At All Confident

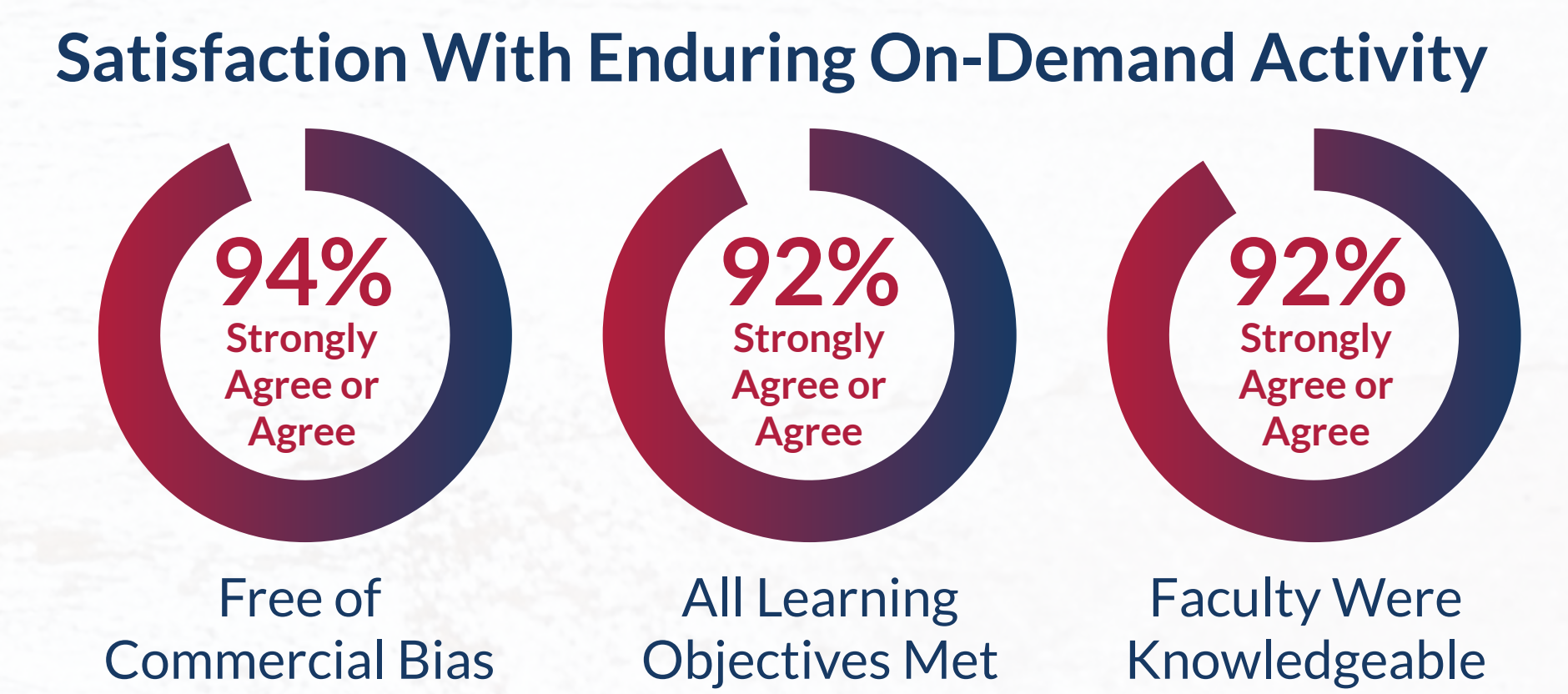


**Confidence Doubled to Tripled Across All Outcome Measures!**

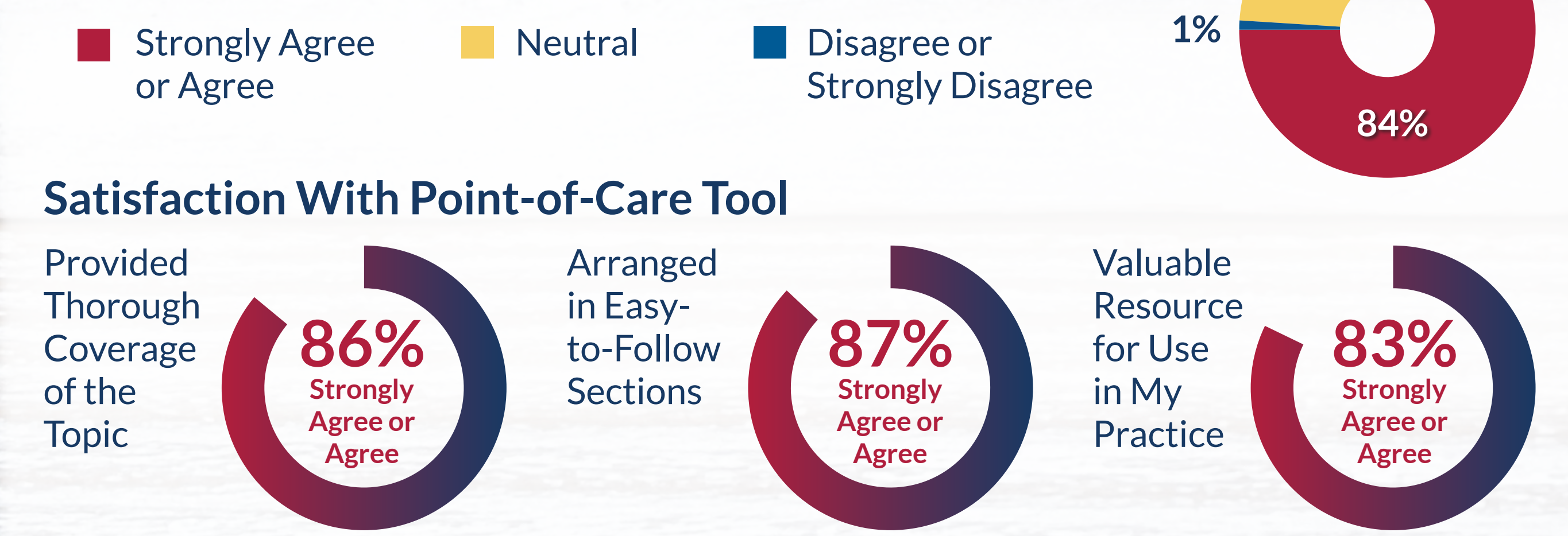
**P < 0.001**  
Across All Changes in Correct Answers From Before to After Activity!

An estimated two-thirds of individuals with migraine who would qualify for preventive treatment do not receive it.

## RESULTS: SATISFACTION



The case study document provoked thought and encouraged me to explore the point-of-care tool to obtain answers to the questions.



All charts show percentages (%) of Learners who selected each answer (N = 10,872) unless otherwise noted.

## CONCLUSION

This 12-month NP-focused educational initiative achieved exceptional reach and produced substantial improvements in migraine-related knowledge and confidence, while achieving high satisfaction ratings from learners. Findings demonstrate the effectiveness of interactive, case-based education supported by a practical point-of-care tool in addressing persistent gaps in migraine management. Continued targeted education remains essential to reinforce diagnostic accuracy, optimize preventive treatment selection, and improve patient outcomes in migraine care.

## REFERENCES

- Albayrak HO, Gurbuz H, Basaran S, Yilmaz S. *Pain Manag.* 2022;12(2):141-148.
- Science of Migraine. <https://www.scienceofmigraine.com/burden-of-migraine/migraine-defined>.
- Vetvik KG, MacGregor EA. *Lancet Neurol.* 2017;16(1):76.
- American Migraine Foundation. THE FACTS ABOUT MIGRAINE. <https://americanmigraine.org/resource-library/migraine-facts/>.
- Charles AC, Digre KB, Goadsby PJ, et al. *Headache.* Published online 2024.