



# Experiential Enrichment: Resident Physician Knowledge and Utilization of Continuous Glucose Monitors (CGMs) after Personal Use

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GRADUATE MEDICAL EDUCATION

## Background

- Continuous glucose monitors (CGMs), introduced in 1999, improve patient ability to manage blood sugar and increase awareness and prevention of acute glycemic events.<sup>1</sup>
- An estimated 700 million adults are expected to be diagnosed with diabetes by 2025.<sup>2</sup>
- Centers for Medicare and Medicaid Services expanded CGM eligibility to include insulin usage or experience of a hypoglycemic event.<sup>3</sup>
- Studies show an underutilization of CGM devices despite expanding eligibility.<sup>4</sup>

## Purpose

The aim of this study was to increase the number of CGM prescriptions for eligible patients by 5% through resident's personal use and education.

## Methodology

A cross-sectional quality improvement study in a residency clinic August 2023 through June 2024 funded by Abbott and Dexcom

### Phase 1: Pre-Intervention Assessment

- Inclusion criteria: Resident physicians in the Piedmont Athens Regional Residency Programs.
- Administration of pre-intervention questionnaire regarding CGM knowledge, attitudes, and prescription patterns

### Phase 2: Experiential Enrichment Session

- 2-hour practicum regarding CGM eligibility, interpreting CGM reports, and exploring different CGM devices
- Personal wearing of CGM for the duration of device life

### Phase 3: Post-Intervention Assessment

- Administration of post-intervention questionnaire regarding CGM knowledge, attitudes, and prescription patterns

## Results

Percentage of Resident Physicians Previously Trained in CGM Device Usage

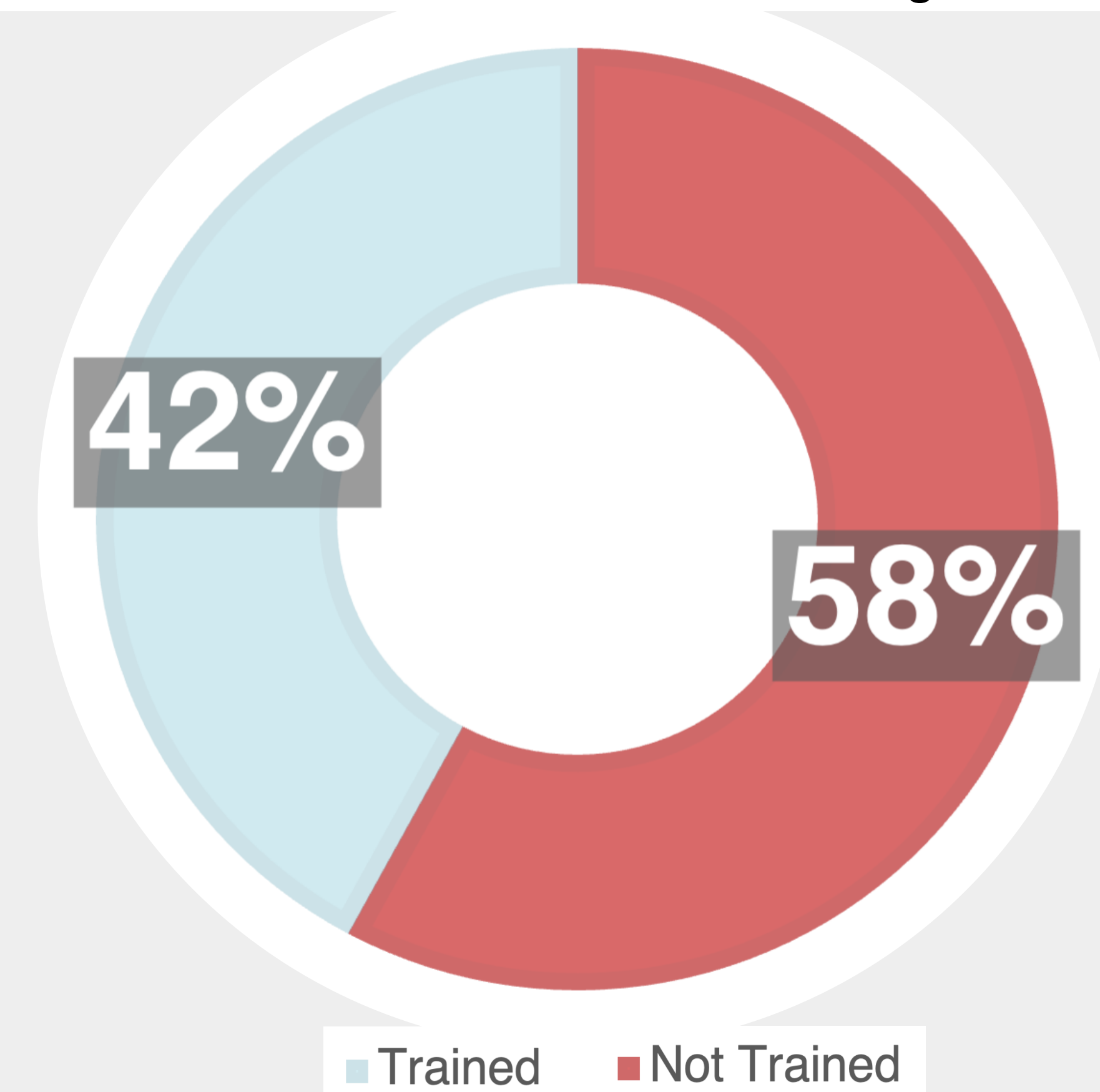


Figure 1: Prior training in CGMs.

Resident Physician Knowledge Reported Before and After CGM Device Training

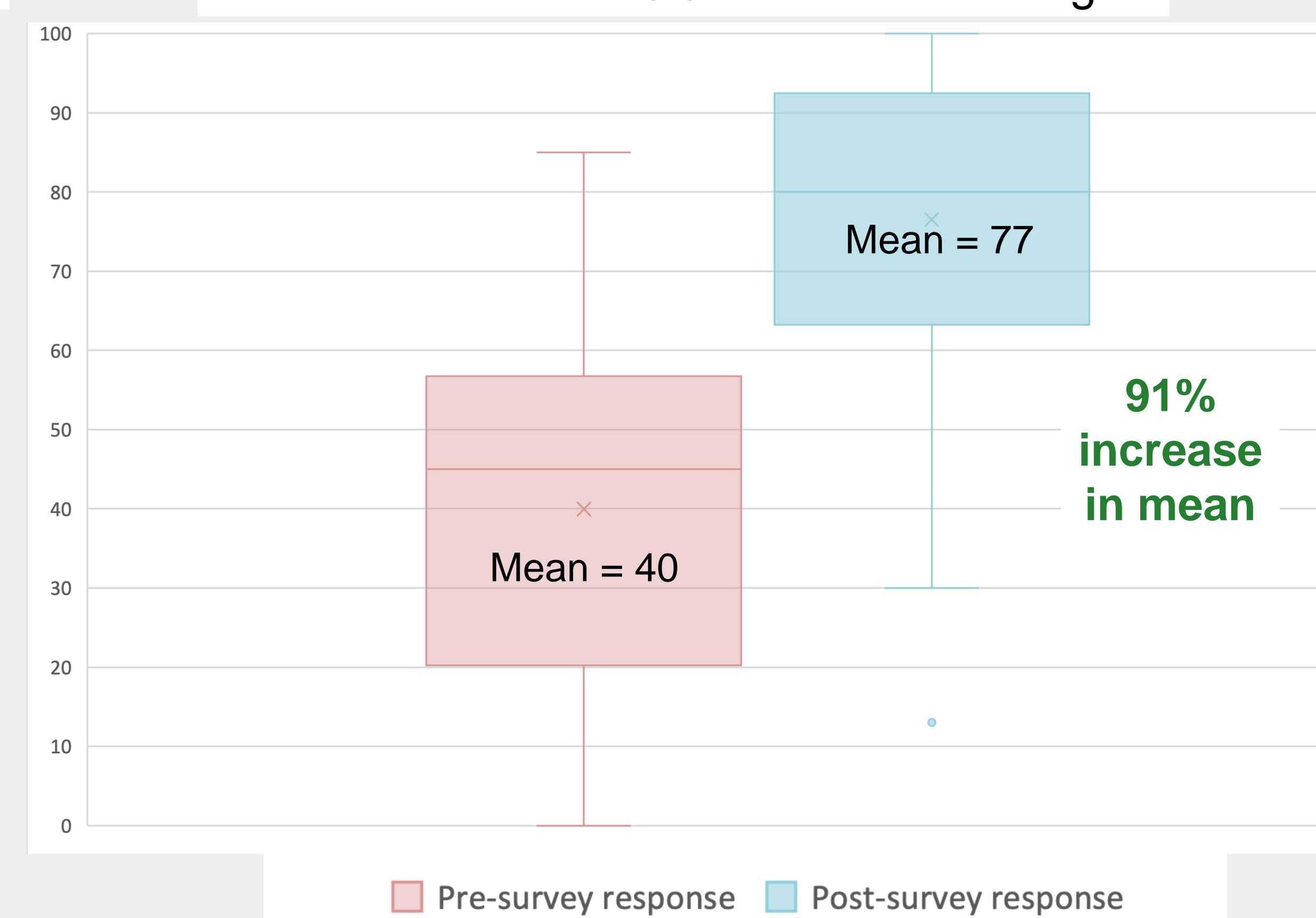


Figure 2: Box and Whisker plot using data collected from the pre-intervention and post-intervention questionnaires measuring knowledge

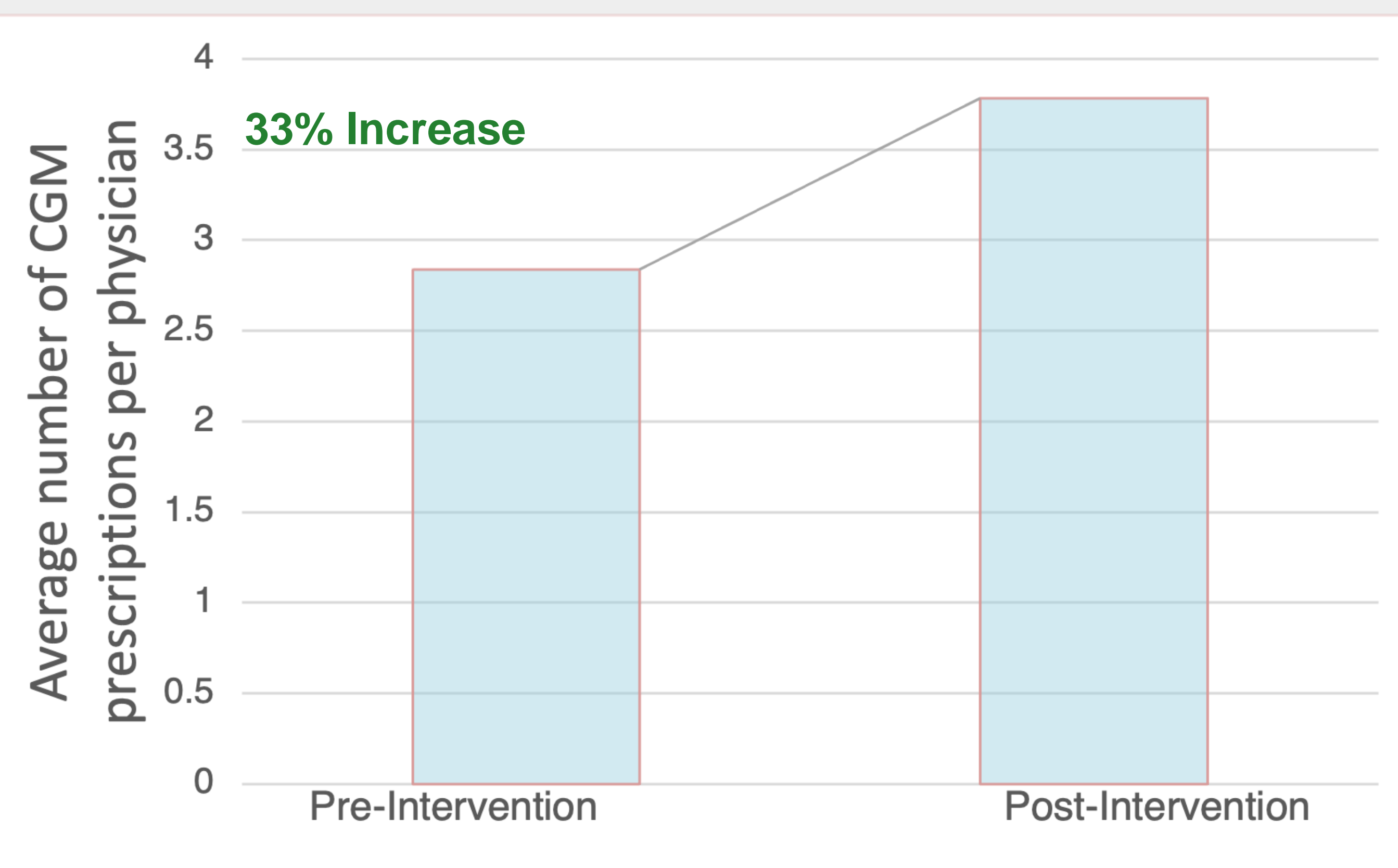


Figure 3: Bar graph displaying the average number of CGM prescriptions per physician pre- and post-intervention.

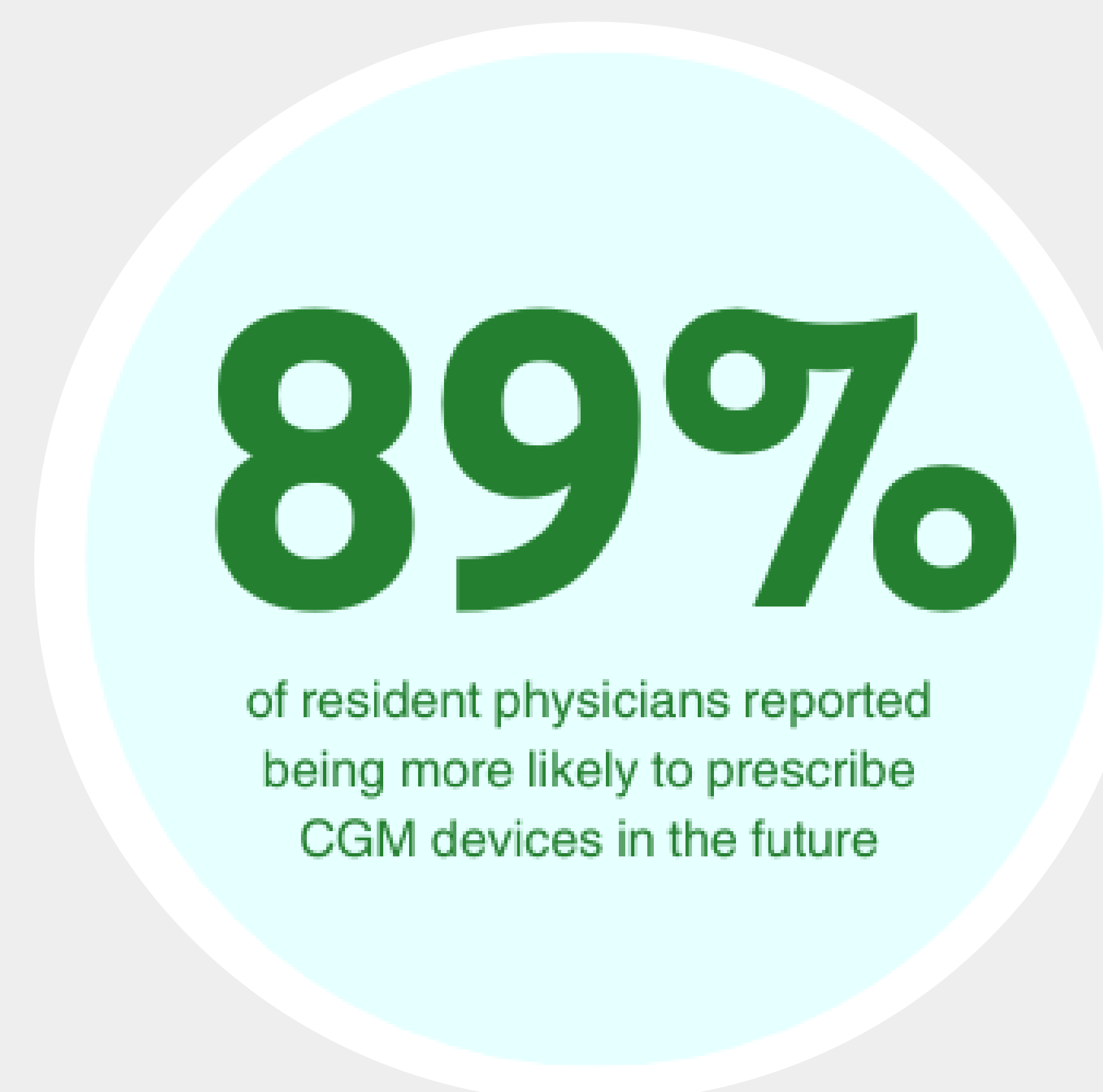


Figure 4: Likelihood of future CGM prescriptions.

## Discussion

- Pre-intervention questionnaire results revealed that the majority of resident physicians had not received prior continuous glucose monitor (CGM) training and did not feel confident in prescribing them to eligible patients.
- Following intervention implementation, resident physicians saw a 37-point increase in CGM knowledge self-assessment and a 33% increase in CGM prescriptions per physician.
- Resident physicians gained knowledge in determining patient eligibility and ordering CGMs through the electronic medical records system, as well as skills in interpreting CGM reports.
- Limitations include being a single-center study with a response rate of 70%.

## Conclusion

- Formal training in CGMs, including wearing a device, resulted in a significant increase in resident physician knowledge, confidence in prescribing, and prescription rates.
- Similar training should be established for other training programs to verify the results of this study and subsequently provide up-to-date care.

## References

The QR code below will lead to a document containing the references utilized in this research.

