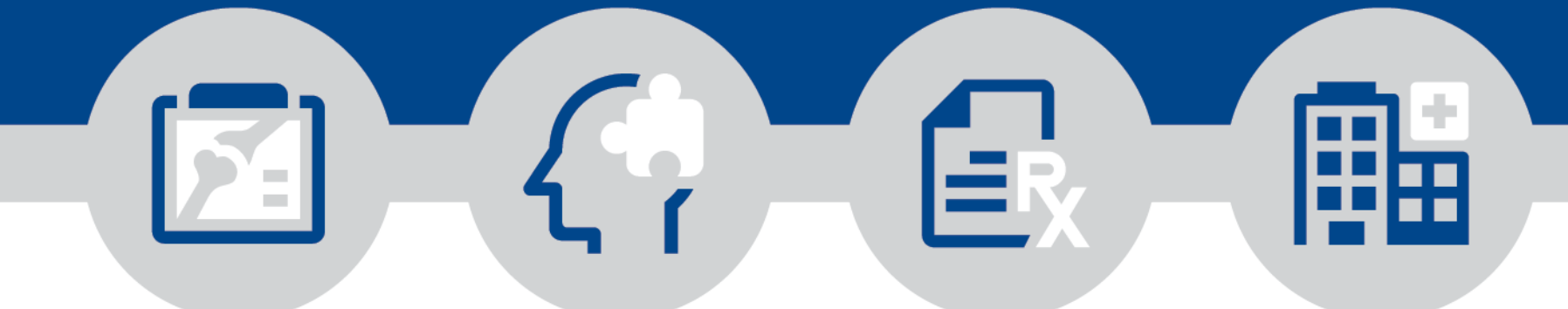


A Retrospective Look at the Long-Term Effects of Remote Patient Monitoring

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Introduction

- Remote patient monitoring (RPM) has demonstrated value as a tool to aid patients in the management of their chronic illness in the home.
- Although the Mississippi Diabetes Telehealth Network Study (MSDTNS) was successful in reducing HbA1c levels for patients participating in RPM in the Mississippi Delta, it remains unclear the long-term effect of RPM on patients and how to support patients to maintain the treatment effect after discharge.

Objective

- This study evaluated the long-term effectiveness of an RPM program after the intervention was withdrawn.
- Understanding the long term sustainability of the positive outcomes associated with remote patient monitoring informs clinicians as they improve current and build new programs.

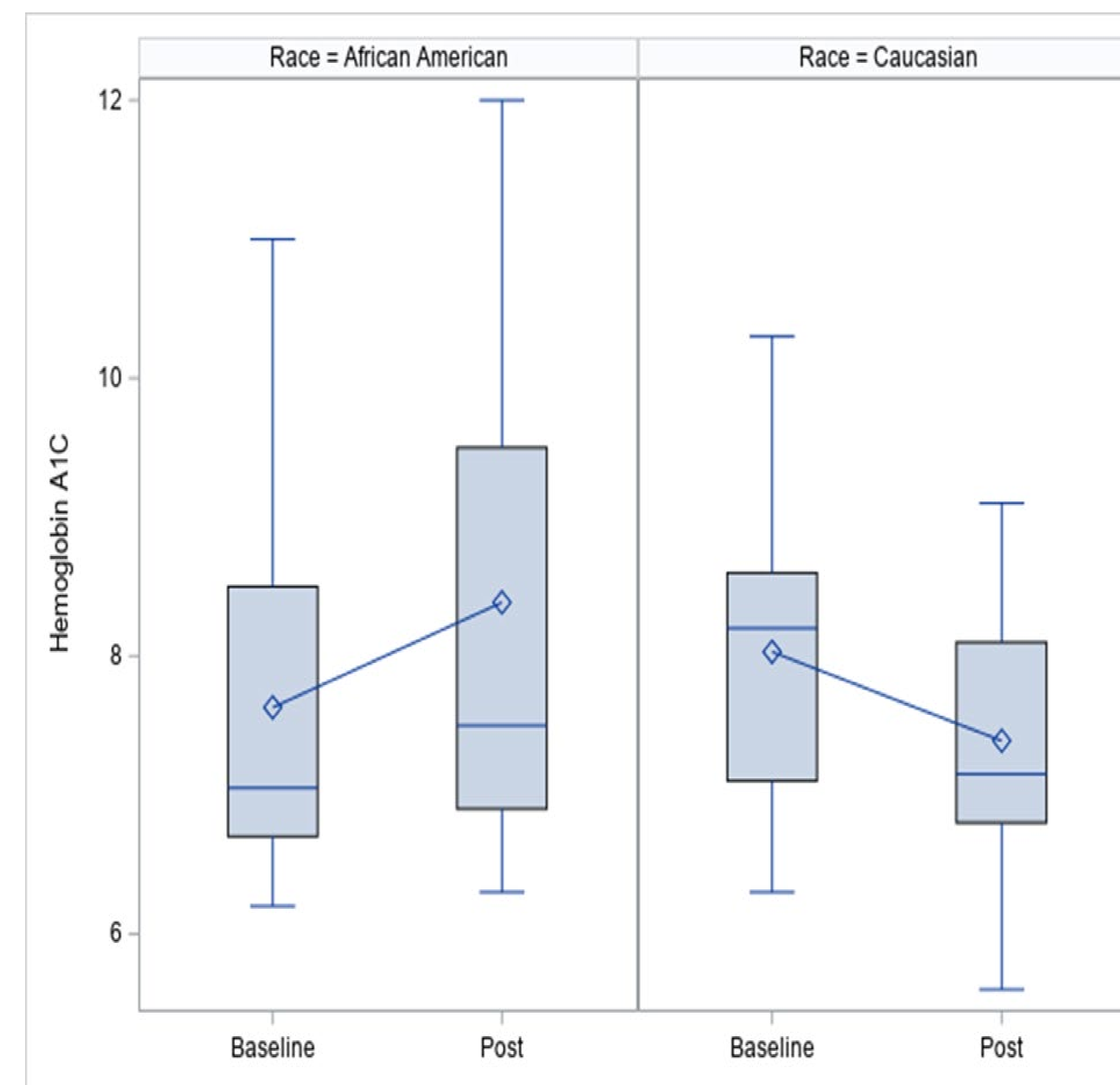
Materials and Methods

The inclusion criteria for this retrospective study were:

- Completion of the Mississippi Diabetes Telehealth Network Study
- 18 years of age or older
- Not pregnant
- Retrospective review of medical records of patients who completed all phases of the MSDTNS from 2014 to 2016 was performed over a period of 6 months. Data collected included HbA1c values, demographics, and changes in social determinants of health.
- The researcher at the site also logged the participants current HbA1c and any results that were available in their electronic health record since the conclusion of the original study.
- If the participant did not have a HbA1c within the past 4 months or was not scheduled for one within the next 3 months, a level was drawn at that time.

Results

- Of the 31 participants, African Americans displayed a significant difference in HbA1c values compared to Caucasians since the end of the MDTNS.
- No significant effect from other variables such as income, marital status, insurance coverage, or age on the change of HbA1c values was detected since the end of the original study.



Conclusions/Implications

- This limited study implies that African Americans are at higher risk for having an increase in hemoglobin A1C after the program is completed.
- More investigation is needed to identify ways to reduce their risk and equalize the long-term effects of RPM on clinical outcomes of patients in rural or underserved communities.
- This study has a small sample size and missing values with the flawed retrospective nature by the lost follow-up two years after the original study completion.
- It would be desirable that future prospective experiments design the study with a follow-up period after removing interventions.

Disclaimer

This work is being funded by the Federal Office of Rural Health Policy (FORHP), Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services (HHS) under cooperative agreement award no. U66RH31459. The information, conclusions, and opinions expressed are those of the authors and no endorsement by FORHP, HRSA, or HHS is intended or should be inferred.