

# The use of a digital health tool with AI-coaching for patients enrolled in a virtual diabetes program is associated with improvements in weight and blood pressure

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## PURPOSE

Fifty percent of individuals with type 2 diabetes have or are at risk for cardiovascular disease<sup>1</sup> and require holistic care to improve cardiometabolic risk factors such as elevated blood pressure and excessive body weight.<sup>2</sup> In practice, helping these individuals with episodic coaching may not be sufficient. We wished to examine the effects of providing individuals enrolled in a virtual health program for type 2 diabetes with a digital health application that provides continuous AI-driven coaching, supporting self-management behaviors across related cardiometabolic conditions.

## METHODS

These data come from a real-world study of individuals with type 2 diabetes enrolled in a pilot virtual program focused on improving nutrition and optimizing medications. As part of the program, individuals were given access to the digital health application. Data from the application was collected from the cloud and de-identified. Data was analyzed from a baseline 2-week period and compared to the most recent 2-week period.

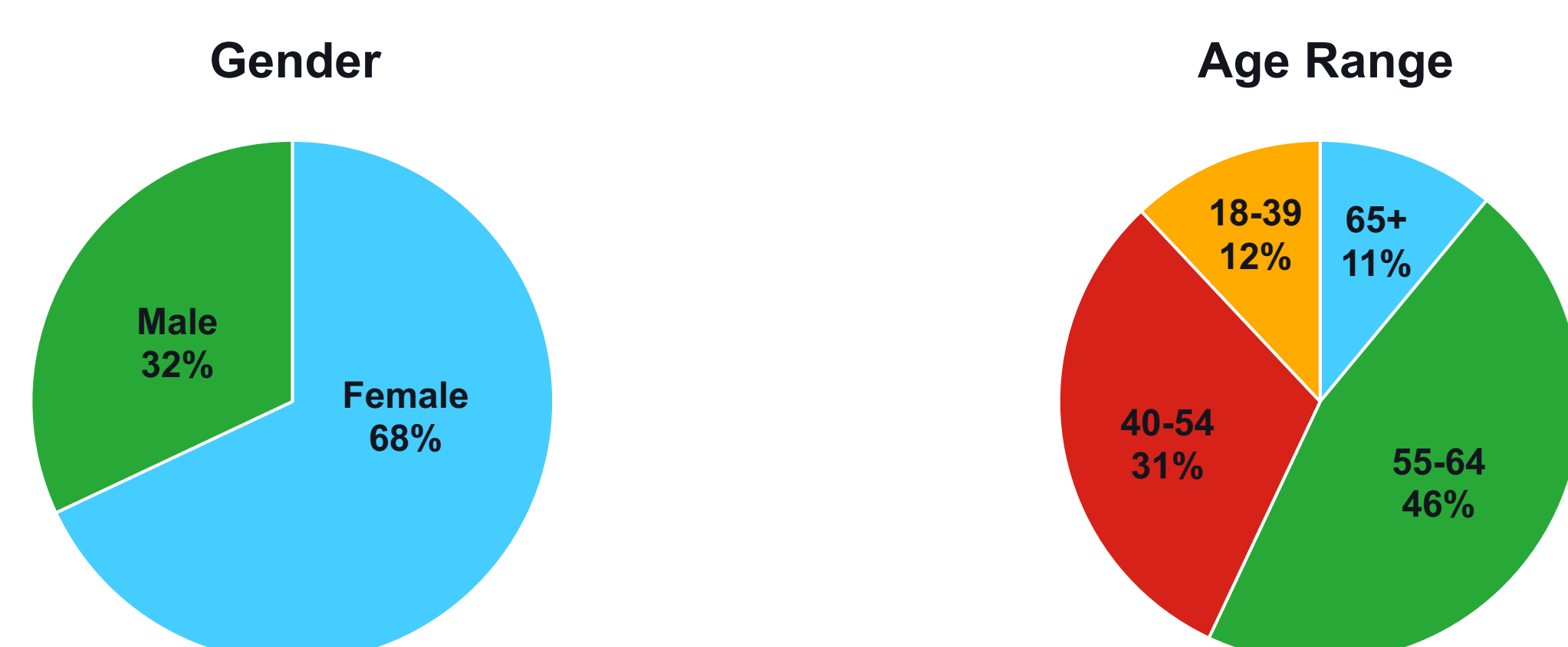
## RESULTS

### Figure 1: Demographic Information

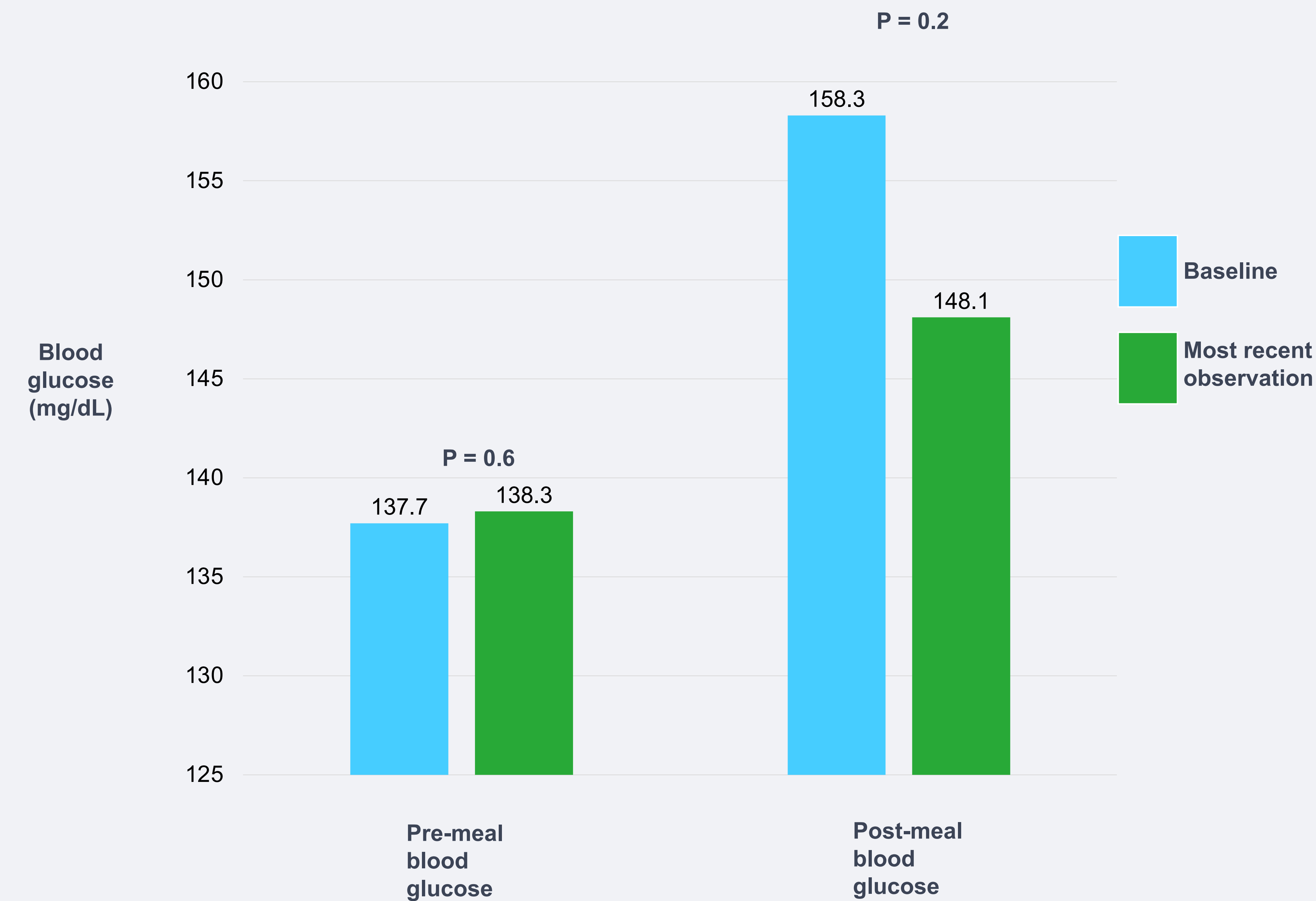
Of the 71 total program participants, we included in the analysis the 65 who were enrolled > 30 days.

The mean length of engagement was 256 days (SD = 104, range 49 to 419 days)

Baseline mean BMI = 37.4 kg/m<sup>2</sup> (SD = 9)

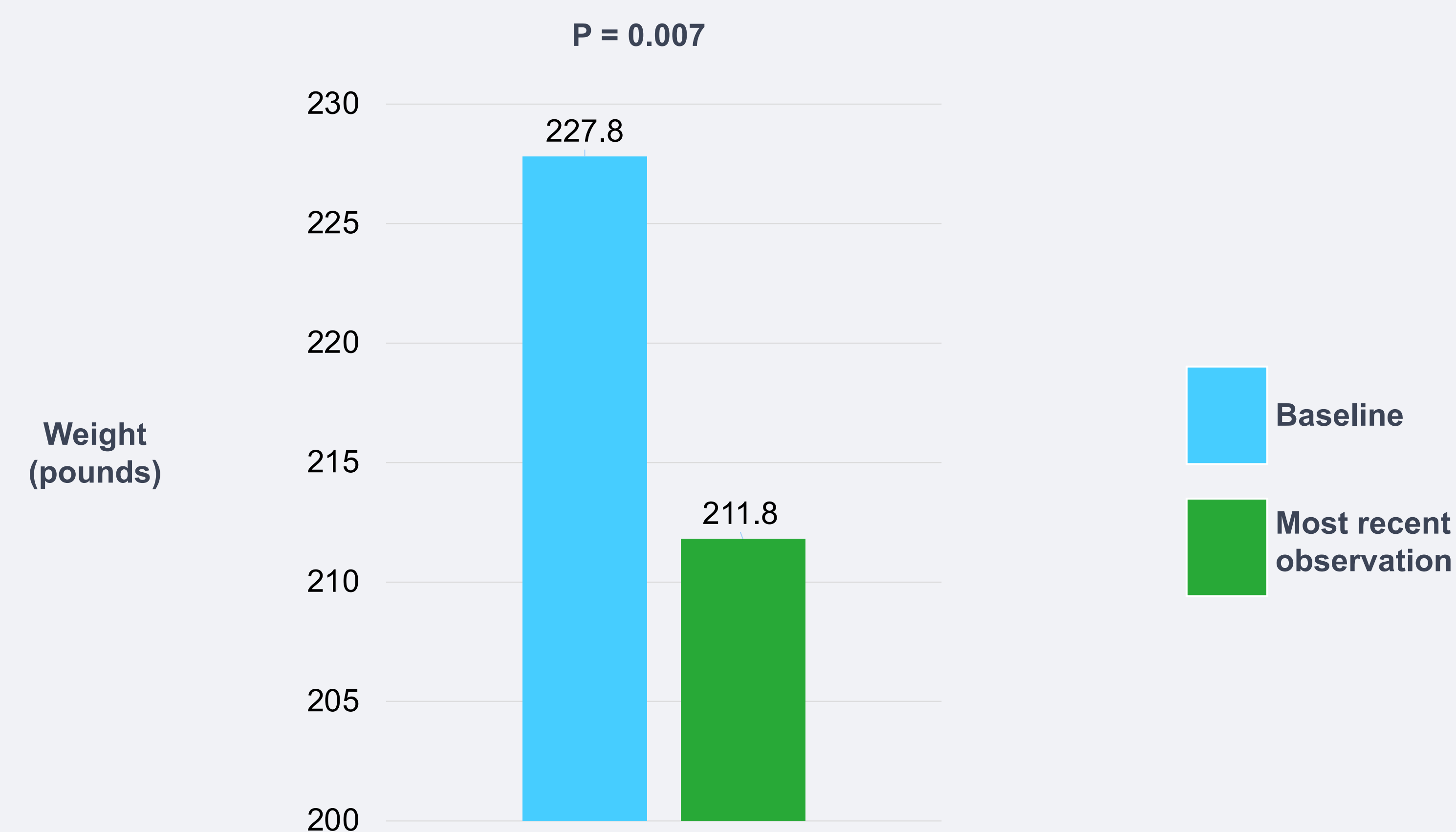


### Figure 2: Blood Glucose Data

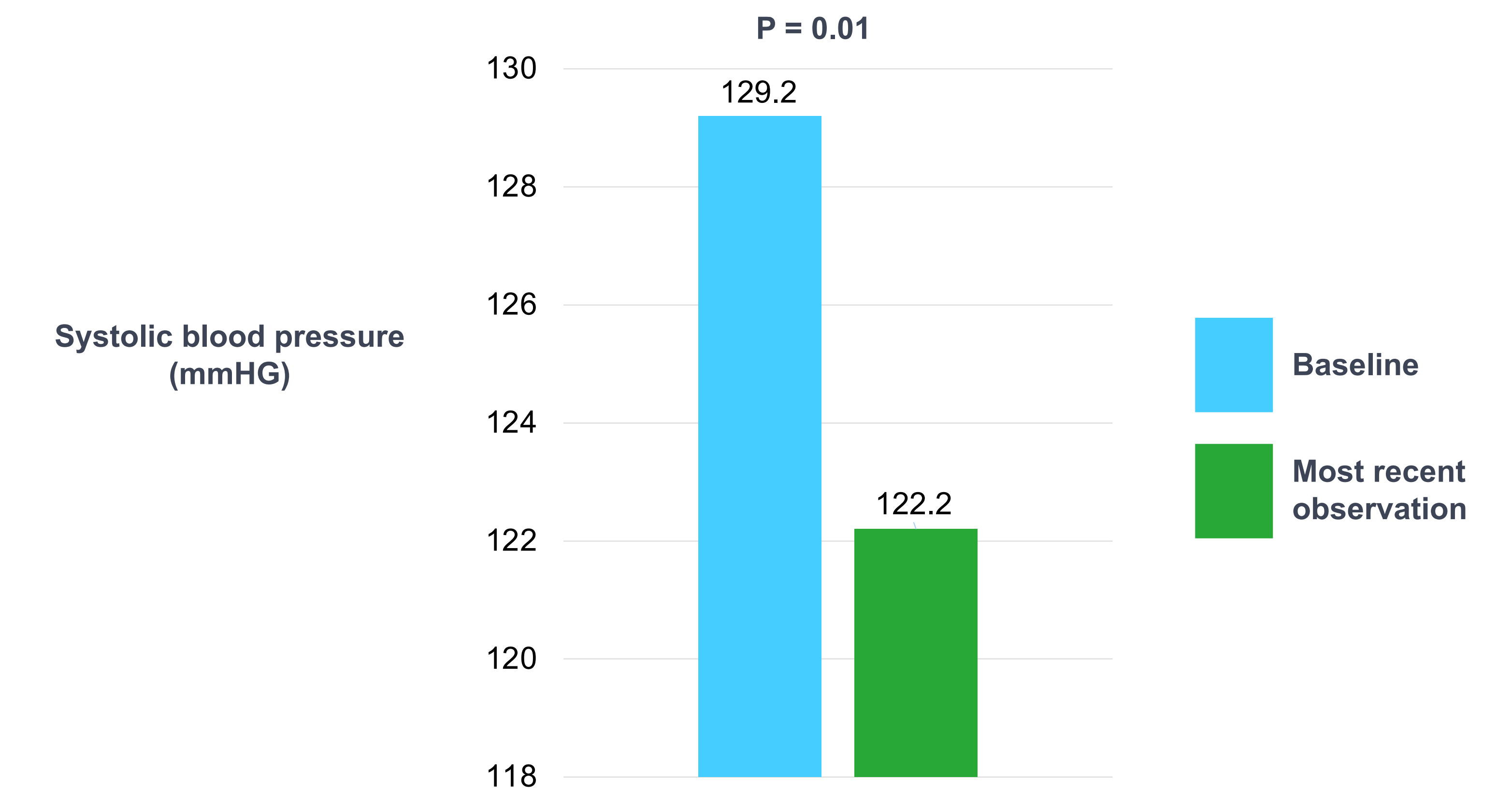


### Figure 3: Weight Loss Data

77% of participants lost weight. Their average weight loss was 4.8%.



### Figure 4: Blood Pressure Data



## CONCLUSIONS

The use of a digital health application in a virtual program for people with type 2 diabetes was associated with favorable trends in post-meal blood glucose and statistically and clinically significant improvements in weight and systolic blood pressure. In this population, the blood glucose and blood pressure were well-controlled at baseline, thus somewhat limiting the potential of the improvement.

Digital health tools with personalized, real-time AI-coaching, support more positive daily self-care decisions for the individual and have the potential to amplify the benefits of episodic meetings with clinicians, thus potentially reducing cardiovascular risk. Having the digital health data gives the clinician visibility to the user's self-management journey since the last clinical encounter, fostering meaningful conversations and informing care plan adjustments. This continuous, data-informed approach better matches the needs of those self-managing complex chronic conditions.<sup>3</sup>

## DISCLOSURES

All authors are employees of WellDoc.

## REFERENCES

- <sup>1</sup>National Diabetes Statistics Report website. <https://www.cdc.gov/diabetes/data/statistics-report/index.html>. Accessed October 11, 2023.
- <sup>2</sup>El-Sayed NA, Aleppo G, Aroda VR, et al. Comprehensive Medical Evaluation and Assessment of Comorbidities: Standards of Care in Diabetes-2023. Diabetes Care, 2023;46(Suppl 1):S49-S67.
- <sup>3</sup>Phillip M, Bergenstal RM, Close KL, et al. The Digital/Virtual Diabetes Clinic: the Future is Now--Recommendations from an International Panel on Diabetes Digital Technologies Diabetes Technol Ther, 2021;23(2).