

# USE OF A DIABETES DIGITAL HEALTH SOLUTION LEADS TO IMPROVEMENTS IN CARDIOMETABOLIC OUTCOMES

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## BACKGROUND

Diabetes is a cardiometabolic condition with the potential for multiple adverse health consequences, including increased risk of heart disease, stroke, kidney failure, blindness, and amputation. Estimates indicate that there were approximately 537 million people worldwide with diabetes in 2021, which is projected to rise to 783 million by 2045 (1). The increasing prevalence of diabetes and related cardiometabolic conditions, including hypertension and dyslipidemia, combined with a worsening global shortage of health care professionals (2) necessitates new approaches to diabetes-cardiometabolic care management to expand access to care, lessen the burden on individuals living with these conditions, improve efficiencies and reduce unsustainable medical costs (3).

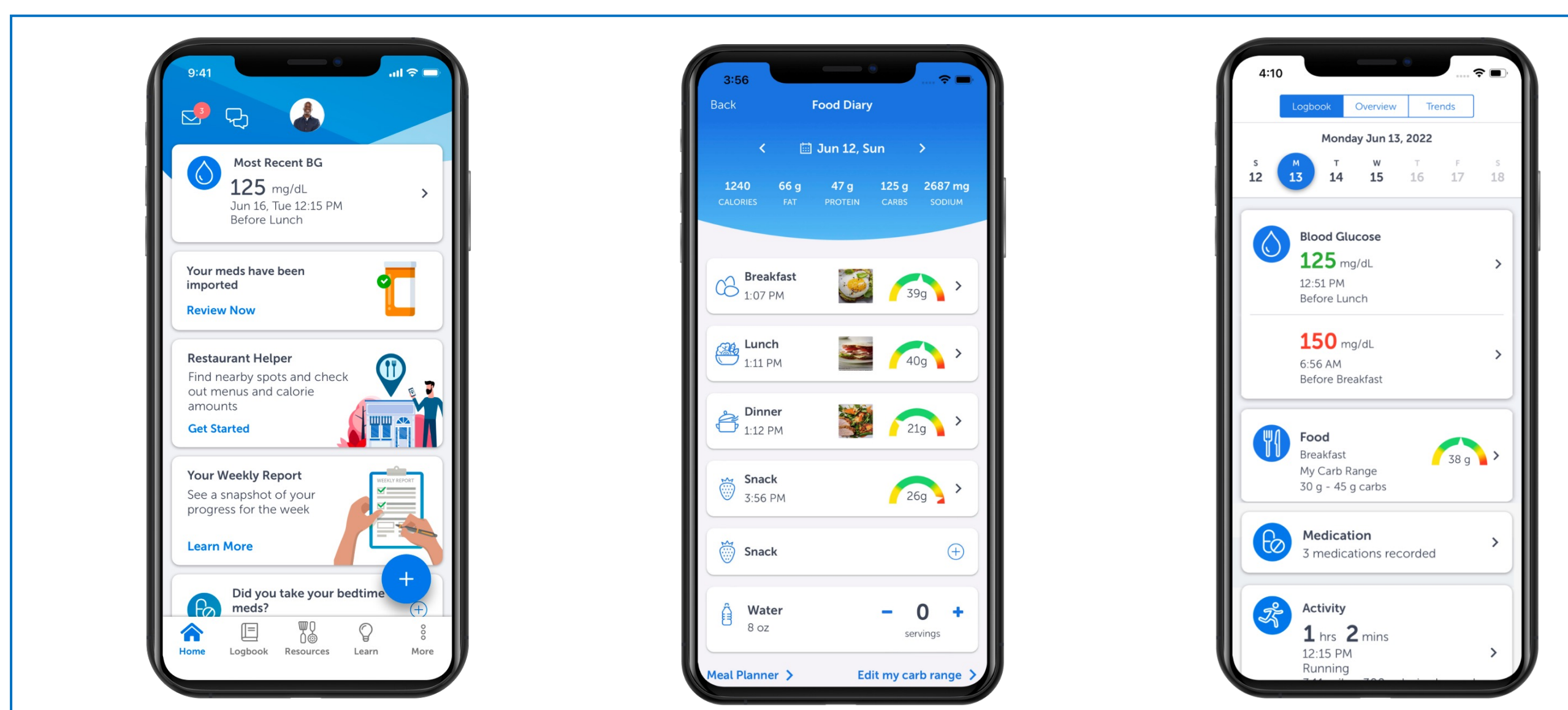
## SPECIFIC AIMS/PURPOSE

We have previously demonstrated that using a diabetes digital health solution leads to improved glycemia (4, 5). We were interested in potential benefits of the same solution on broader cardiometabolic conditions and comorbidities, in this case, both hypertension and weight. Additionally, we assessed the potential impact of digital health engagement on health outcomes.

## METHODS

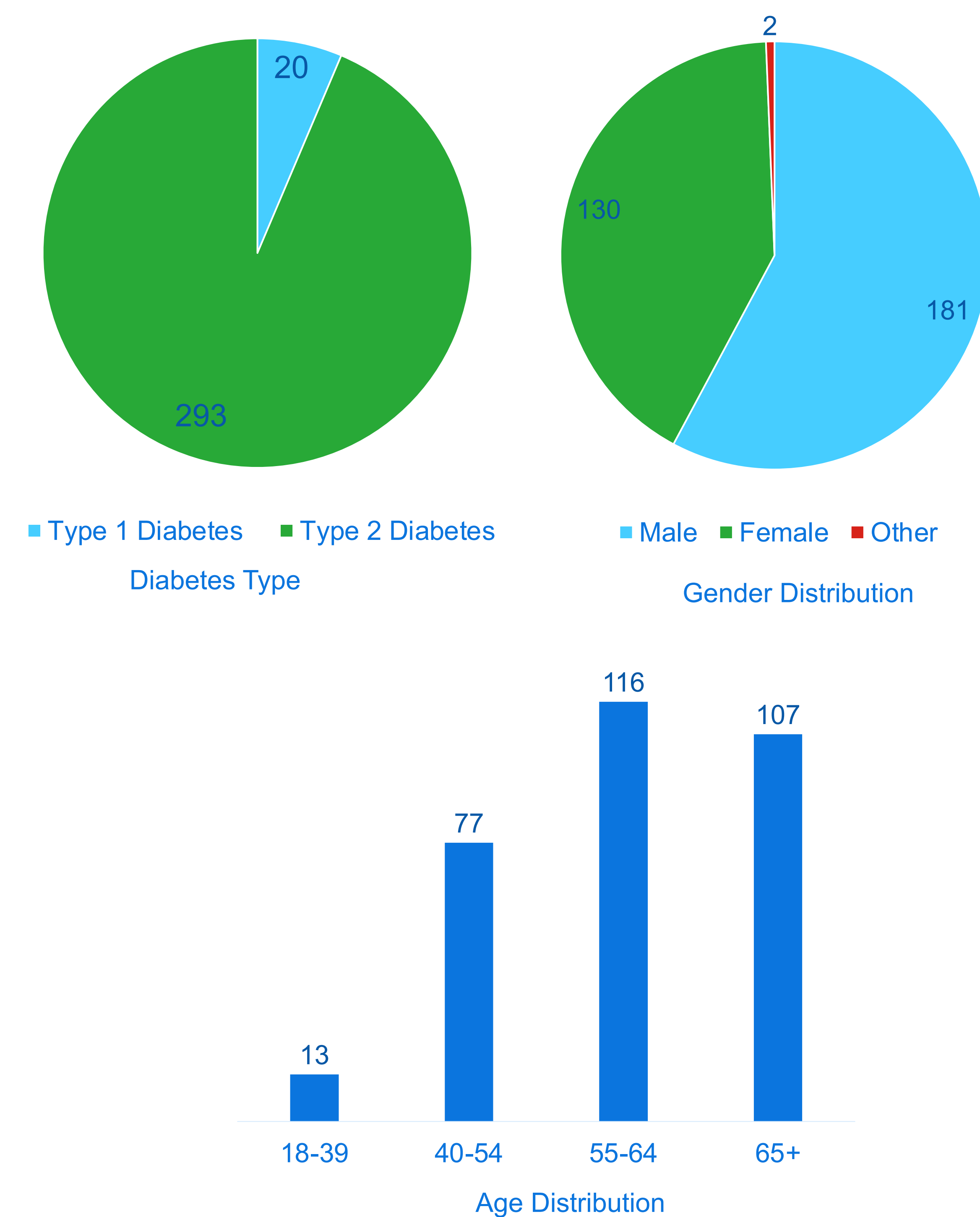
A data set of 313 users with type 1 and type 2 diabetes was created from real-world use of the digital health solution. The evaluation period was 6 months from registration. Systolic blood pressure (SBP) and weight were analyzed at baseline (1-2 weeks post-registration) and at weeks 23-24. Engagement with the digital health solution was also studied during this period.

Figure 1: Screenshots of the Digital Health Solution



## RESULTS

Figure 2: Population Demographics



Mean SBP for the entire population decreased by 3.7 mmHg ( $p < 0.05$ ). A total of 99 participants improved their blood pressure. This cohort had a mean decrease in SBP of 11 mmHg ( $p < 0.0001$ ) and a mean weight loss of 5 pounds (2.27 kg) ( $p < 0.005$ ) and demonstrated significant differences in engagement compared to those who did not improve.

Figure 3: Systolic Blood Pressure Outcomes Against Engagement

|                      | N   | Avg. SBP Delta (mmHg) |
|----------------------|-----|-----------------------|
| SBP Drop             | 99  | -11.3                 |
| SBP Rise             | 65  | 8.0                   |
| Total SBP Population | 164 | -3.7                  |

Figure 4: Engagement Comparisons by Systolic Blood Pressure

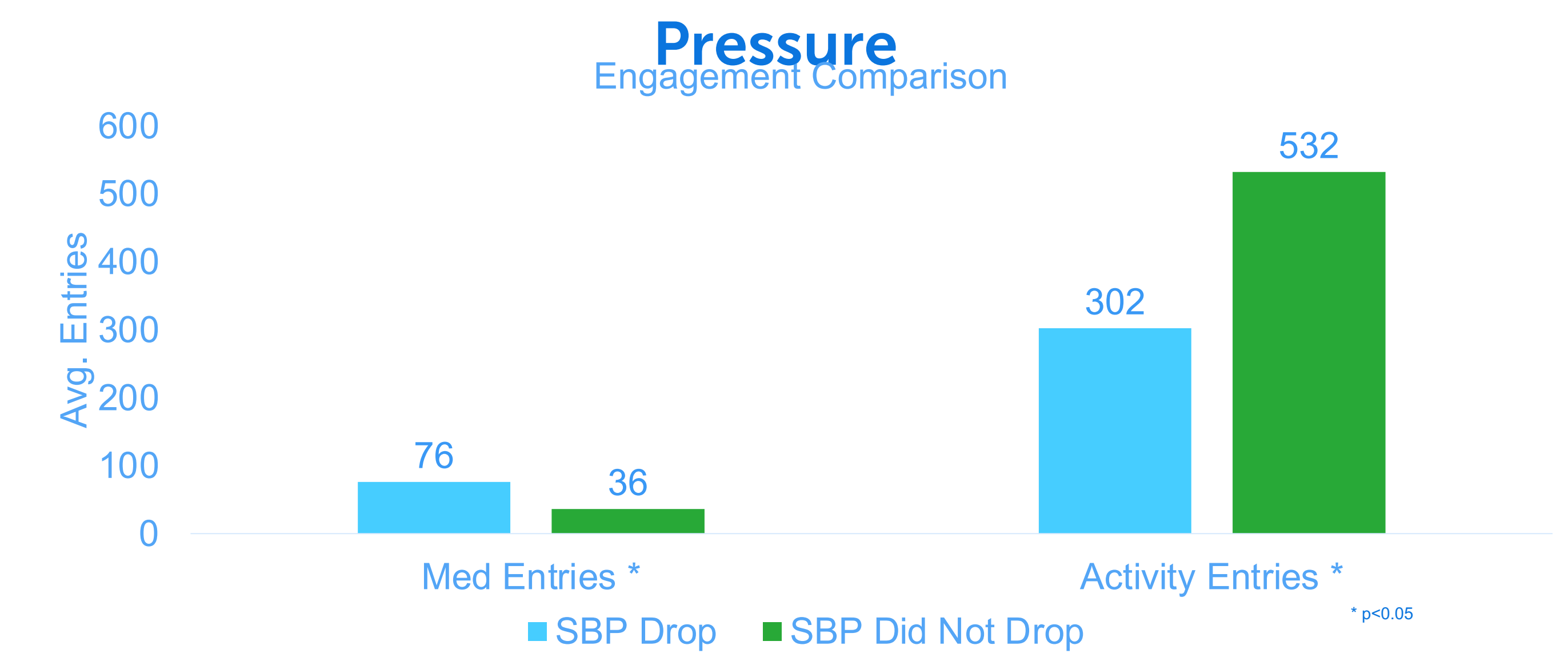


Figure 5: Weight Comparisons by Systolic Blood Pressure



## CONCLUSIONS

- These data demonstrate the impact of a diabetes focused digital health solution to support broader cardiometabolic conditions.
- This emphasizes the benefit of developing multi-condition approaches to help individuals and their care teams manage the complexities associated with multiple health factors and comorbidities.
- This data also supports the premise that solutions which provide the ability for individuals to engage in important health factors like medication management and level of activity, can support positive outcomes.
- Continued studies on impact of digital health to support multiple aspects of health and ongoing understanding of engagement patterns and the criticality of personalized guidance and insights will lead to continued evolution of digital health solutions in supporting optimal health outcomes.

## REFERENCES

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