HealthSnap and Prisma Health

RPM and CCM Patient Outcomes White Paper (June 2024)

Introduction

This report outlines the clinical outcomes of patients whose blood pressure was remotely monitored as part of a digital health strategy involving Chronic Care Management (CCM) and Remote Patient Monitoring (RPM). The analysis is based on aggregate, de-identified continuous blood pressure data for **4243** patients as of June 6th, 2024.

Patient Demographics and Program Duration

- **Total Patients: 4243**
- **Average Program Duration: 314 days ± 169 days**
    - Half of the patients were enrolled for **1-266** days.
    - The other half were enrolled for **267-639** days.

Clinical Outcomes

Efficacy of Remote Patient Monitoring

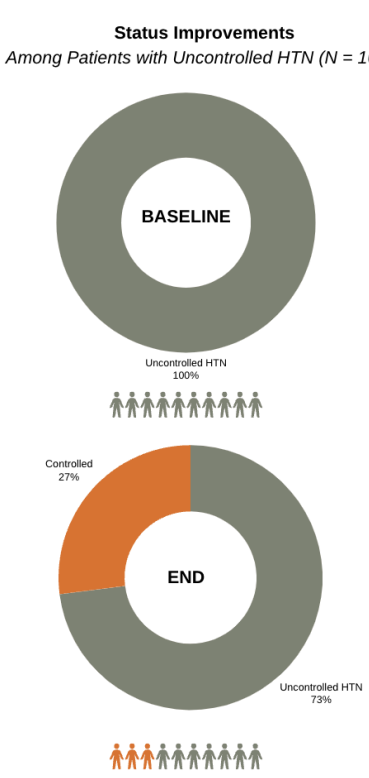
Analysis Methodology

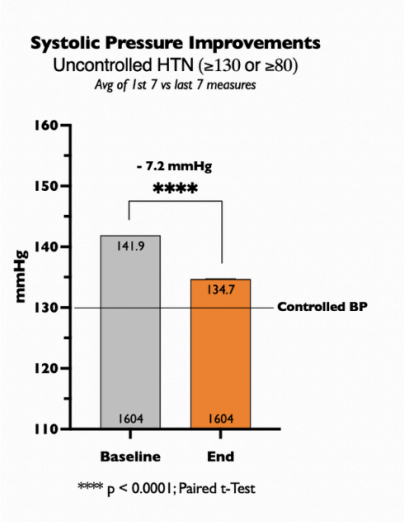
For the analysis of changes due to RPM, we compared the average of the first seven blood pressure transmissions to the last seven transmissions. This approach helped to assess the efficacy of the remote monitoring program.

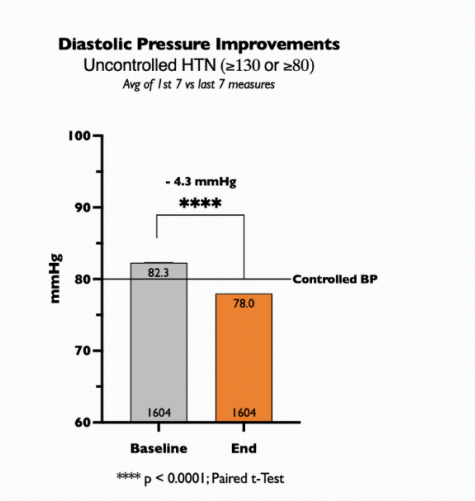
Control of Hypertension

Of the **1604** patients with uncontrolled hypertension at baseline (defined as an average SBP ≥ 130 mmHg or DBP ≥ 80 mmHg):

- **27% (433 patients)** currently have their SBP consistently below 130 mmHg and DBP below 80 mmHg.
- **46.5%** improved their hypertension status (e.g., from Stage 2 to Stage 1 or controlled).
- **44.4%** maintained their hypertension status.
- **63%** improved their SBP.
- **63.8%** improved their DBP.







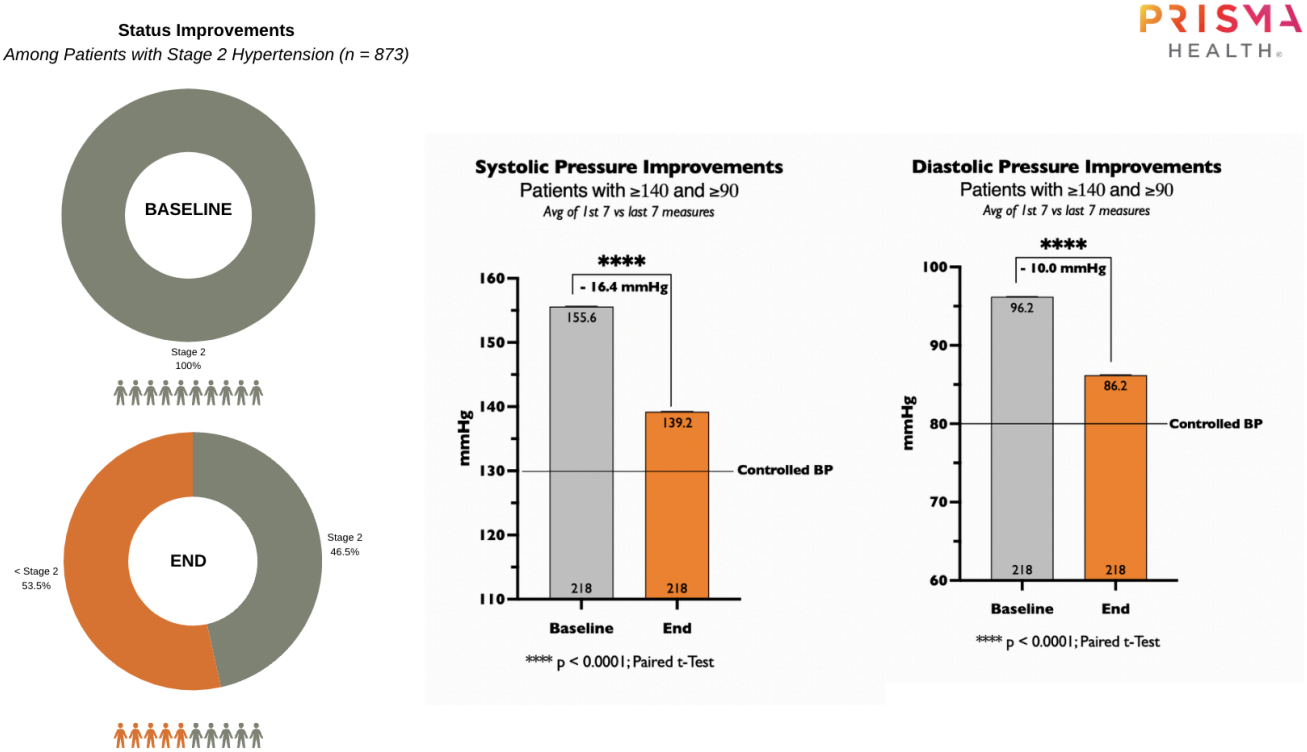
Stage 2 Hypertension Patients

Among the 873 patients initially classified with Stage 2 hypertension:

- **53.5% (467 patients)** now have SBP < 140 mmHg and DBP < 90 mmHg.
- **70.9%** lowered their SBP.
- **71%** lowered their DBP.

Blood Pressure Improvements

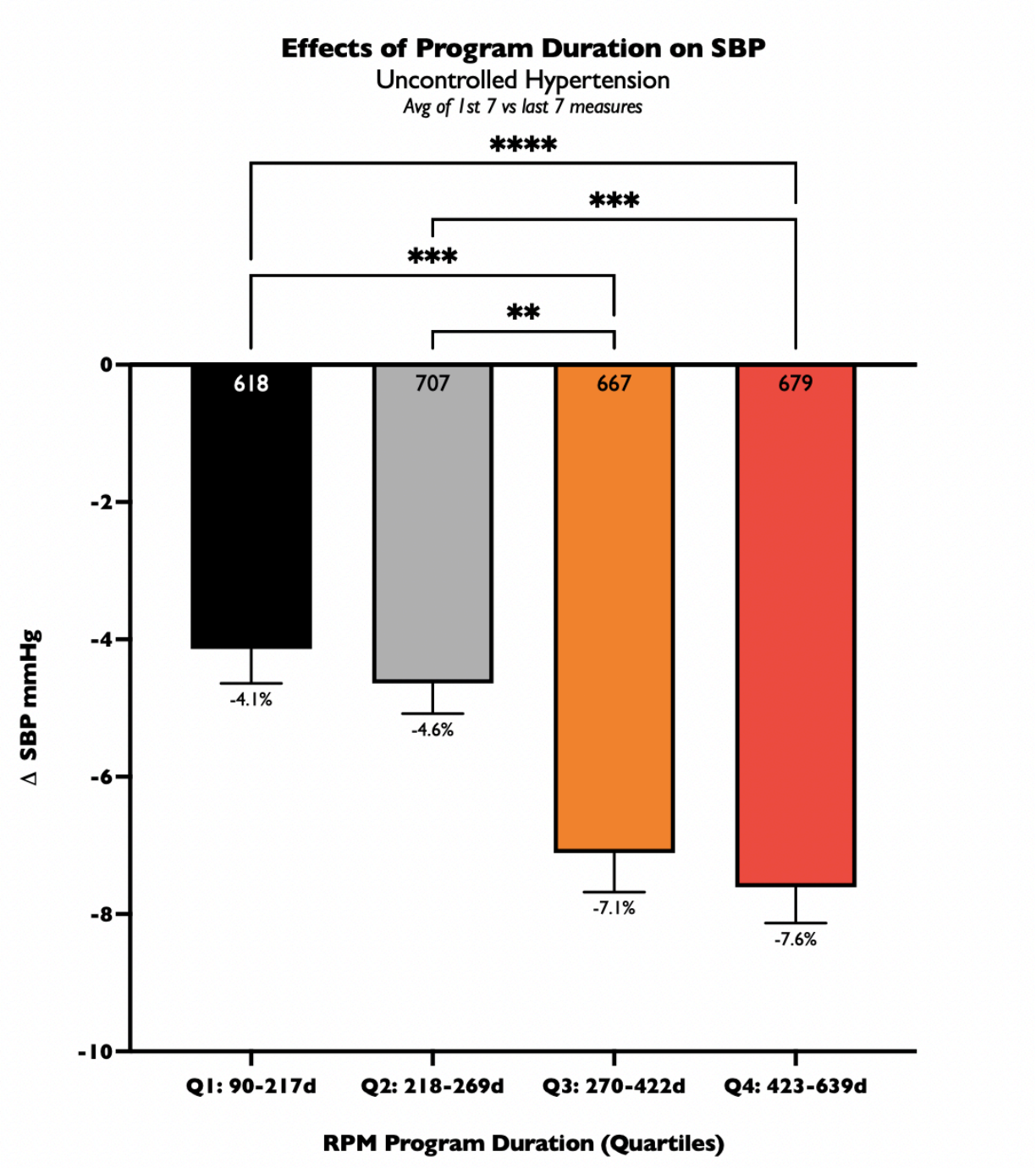
- **Overall Improvement for Uncontrolled Patients:**
  - SBP: Improved from an average of **141.9** mmHg to **134.7** mmHg (**-7.2** mmHg).
  - DBP: Improved from **82.3** mmHg to **78** mmHg (**-4.3** mmHg).
- **Statistical Significance:** All improvements were highly statistically significant (p<0.0001).
- **Stage 2 SBP & DBP Patients (≥140 and ≥ 90):**
  - SBP improved by **-16.4** mmHg.
  - DBP improved by **-10** mmHg (p<0.0001).



Program Duration Quartiles

Among patients with baseline uncontrolled hypertension, blood pressure improvements were sustained over time across different quartiles: (N 2671)

- **Quartile 1 (90-217 days, n = 618):** Improved SBP by **-4.1 mmHg**.
- **Quartile 2 (218-269 days, n = 707):** Improved SBP by **-4.6 mmHg**
- **Quartile 3 (270-422 days, n = 667):** Improved SBP by **-7.1 mmHg**
- **Quartile 4 (423-639 days, n = 679):** Improved SBP by **-7.6 mmHg**

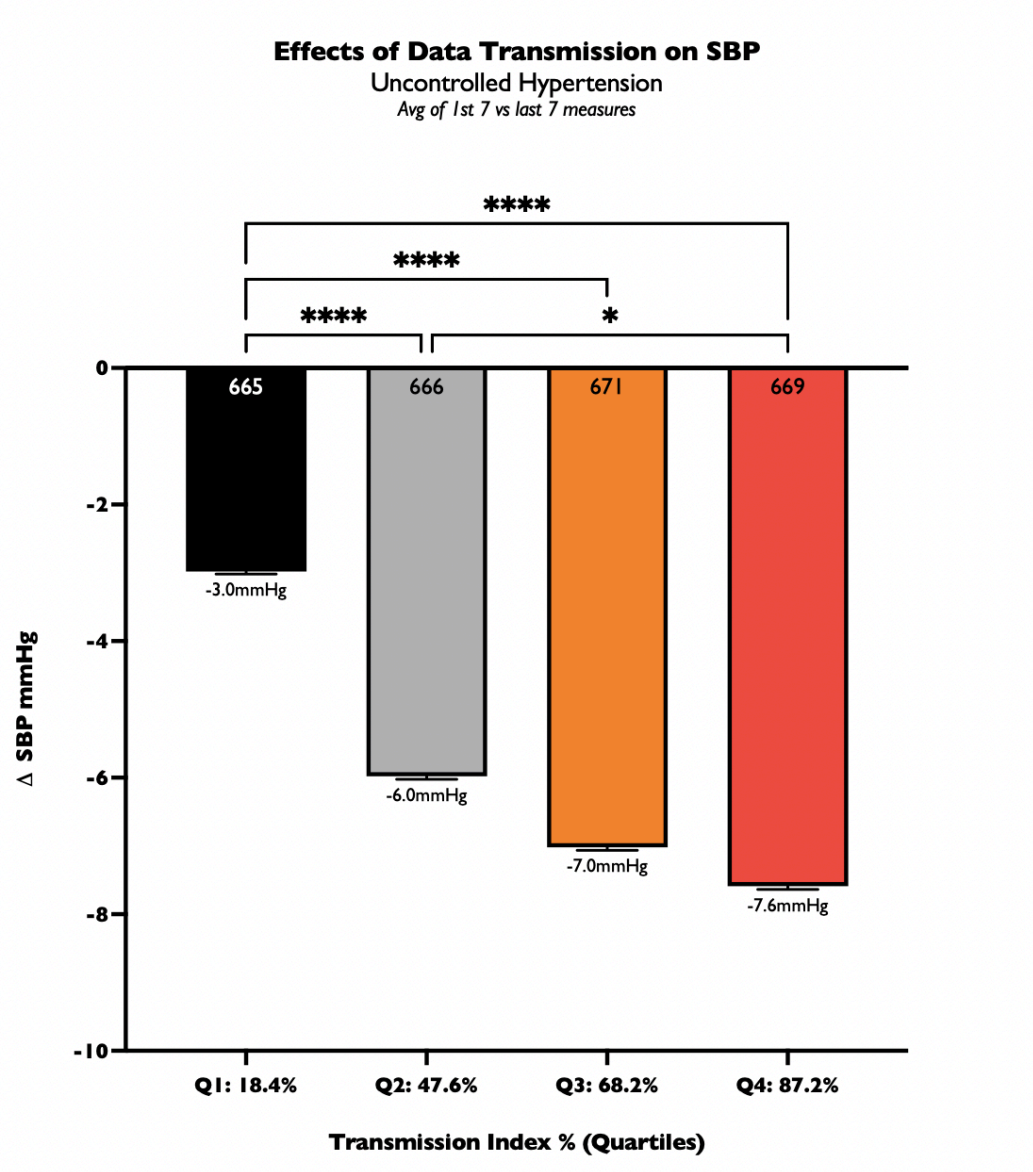


Transmission Index (TI) and BP Improvements

Transmission Index (TI) represents the number of days patients transmit data while enrolled in the program. TI is consistently associated with improvements in blood pressure, with a target TI of 70% being indicative of strong patient engagement. A TI of 50% aligns with the 99454 CPT code requirements.

Among patients with baseline uncontrolled hypertension, blood pressure improvements were associated with data transmission frequency by examining TI% in quartiles: (N 2671)

- **Quartile 1 (18.4-47.5%, n = 665):** Improved SBP by **-3.0 mmHg**.
- **Quartile 2 (47.6%-68.1%, n = 666):** Improved SBP by **-6.0 mmHg**
- **Quartile 3 (68.2%-87.1%, n = 671):** Improved SBP by **-7.0 mmHg**
- **Quartile 4 (87.2%-100%, n = 669):** Improved SBP by **-7.6 mmHg**



Conclusion

The remote blood pressure monitoring program has demonstrated significant clinical benefits in managing hypertension. The statistical significance and sustained improvements in both SBP and DBP underscore the efficacy of the digital health strategy involving CCM and RPM. These findings highlight the potential of remote monitoring to enhance patient outcomes and improve overall cardiovascular health.

Click here to book a demo to learn more about HealthSnap's RPM and CCM programs

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Note: This report is based on anonymized data to ensure patient privacy and confidentiality.

[Source: HealthSnap Clinical Outcomes Analysis, Date: 6/6/2024]