Digital Hypertension Management Solutions Evaluation — Appendices

October 2024 | Version 1.0

Appendix A – Methodology Overview	2
Appendix B – SLR Studies, Company-specific Clinical Citations and HCRU Data	20
Appendix C – Risk of Bias Ratings for SLR Studies	35
Appendix D – Key Comparator Studies with SBP Outcomes	
Appendix E – Key Comparator Studies with BPC Outcomes	43
Appendix F – All Studies with SBP Outcomes	46
Appendix G – All Studies with BPC Outcomes	63

Accessing PHTI's Full Report

You can access the full report here.





Appendix A – Methodology Overview

This evaluation of digital hypertension management solutions followed the Peterson Health Technology Institute's (PHTI) evaluation process using the published assessment methodology and stakeholder engagement process. The assessment methodology is set forth in the <u>ICER-PHTI Assessment Framework</u> for Digital Health Technologies. Additional information about PHTI's process and advisors can be found at <u>phti.org</u>.

Assessment Framework

PHTI partnered with the Institute for Clinical and Economic Review (ICER), a leader in health technology assessment, to develop the ICER-PHTI Assessment Framework for Digital Health Technologies that guides this and all other PHTI evaluations. The assessment framework prioritizes products' clinical benefits and economic impact, while also considering effects on health equity, data privacy, and security. The selection process for which technologies are evaluated are based on several factors, including market relevance, disease burden, level of spend and claimed savings, and evidence quality and availability.

PHTI's goal is to provide decision makers with relevant information to inform digital health purchasing and innovation that improves overall health system performance and delivers better health outcomes at lower costs. By helping purchasers identify bright spots in digital health innovation, PHTI aims to raise the bar for technology-driven advances in healthcare delivery, including superior outcomes, convenience, access, and affordability. The assessment framework can also guide technology developers and investors about performance standards and the evidence needs required to demonstrate stated clinical and economic benefits.

Clinical Assessment

A systematic literature review (SLR), including online database searches, data screening and extraction, and evidence quality ratings, was conducted by a third-party health technology assessment partner to identify all relevant published literature evaluating clinical impact of digital solutions for hypertension management. The SLR was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. This SLR followed the methods and standard set forth in the ICER-PHTI Assessment Framework to provide a rigorous evaluation of digital health technologies. The SLR was registered *a priori* with PROSPERO (registration number CRD42024521630).

Data from two literature databases, MEDLINE and EMBASE, were systematically searched for inclusion into the SLR. Conference proceedings were hand-searched to retrieve relevant publications. Potentially eligible studies were identified via the search strategy outlined in Tables 1 and 2 below. Studies were considered for inclusion in the SLR based on the population, intervention, comparators, outcomes, timing, and setting/study design (PICOTS) criteria presented in Table 3 below.

The SLR included a review of the "grey" literature, which captured data from sources not indexed and that are available from scientific conferences, the US Food and Drug Administration (FDA) website, company websites, and information provided by companies under review.



Table 1. Medline Search Strategy

SEARCH	TERMS	CITATIONS
#1: Clinical indications	"blood pressure"[MeSH Terms] OR "blood pressure determination"[MeSH Terms] OR "arterial pressure"[MeSH Terms] OR "Hypertension"[Mesh] OR ("high blood pressure"[tiab:~0]) OR "Blood Pressure Monitoring, Ambulatory"[MeSH] OR "systolic pressure"[tiab]	571,953
#2: Hypertension management	("blood pressure monitors"[MeSH] OR "hypertension/drug therapy"[MAJR] OR "hypertension/therapy"[MAJR] OR "home blood pressure monitoring"[tiab:~0] OR "hypertension control"[tiab:~0] OR "blood pressure control"[tiab:~0] OR "hypertension management"[tiab:~0] OR "blood pressure management"[tiab:~2] OR "BP control"[tiab:~0]) OR ((blood pressure OR hypertension) AND (monitor OR monitoring OR measurement OR care OR management))	545,345
#3: Artificial Intelligence and Applications	"mobile applications"[MeSH Terms] OR mobile application[Text Word] OR "mobile app"[tiab:~0] OR "digital health"[MeSH Terms] OR digital health[Text Word] OR "digital health technology"[tiab:~0] OR "telemedicine"[MeSH Terms] OR telemedicine[Text Word] OR "Telemedicine/instrumentation"[Mesh] OR "Telemetry/methods"[MeSH] OR "telemonitoring"[tiab] OR "remote patient monitoring"[tiab:~0] OR "RPM"[tiab] OR "remote monitoring"[tiab:~0] OR "mHealth"[tiab] OR "mobile health"[Text Word] OR "smartphone"[MeSH Terms] OR smartphone[tiab] OR "bluetooth"[tiab] OR "software"[MeSH] OR	294,959
#4: Combination	#1 AND #2 AND #3	2,381
#5: Study type exclusions	#4 NOT ("case reports"[pt] OR "case report"[tiab] OR comment[pt] OR editorial[pt] OR "clinical trial protocol"[pt])	2,262
#6: Human studies	#5 NOT ("Animals"[MeSH] NOT "Humans"[MeSH])	2,087
#7: Date filter	Filters: from 2014 – 2024	1,317
#8: Language filter	English	1,278



Table 2. Embase Search Strategy

SEARCH	TERMS	CITATIONS
#1: Clinical indications	'blood pressure'/exp OR 'blood pressure' OR 'hypertension'/exp OR 'hypertension' OR 'blood pressure monitoring'/exp OR 'blood pressure monitoring' OR 'arterial pressure'	1,935,341
#2: Hypertension management	'blood pressure monitor'/exp OR 'blood pressure management':ab,ti OR 'hypertension management':ab,ti OR 'bp monitoring':ab,ti OR 'hypertension control':ti,ab OR 'blood pressure control':ti,ab	37,205
#3: Artificial Intelligence and Applications	'telemedicine' OR 'telemetry' OR 'telemonitoring' OR 'telehealth' OR 'digital health' OR 'digital health technology' OR 'digital health intervention' OR 'digital health application' OR 'remote patient management' OR 'remote patient monitoring':ti,ab OR 'rpm' OR 'mobile health' OR 'mobile health application' OR 'mobile health technology' OR 'mhealth' OR 'smartphone' OR 'bluetooth' OR 'ecological momentary assessment'	190,430
#4: Combination	#1 AND #2 AND #3	1,486
#5: Human studies	#4 AND [humans]/lim	1,347
#6: Study type exclusions	#5 NOT ([editorial]/lim OR [letter]/lim OR [note]/lim OR [short survey]/lim OR 'case report' OR 'editorial' OR 'clinical trial protocol' OR ([review]/lim NOT systematic:ab,ti))	1,088
#7: Date filter	Filters (timeframe): 2014-2024	951
#8 Abstract exclusions	Filters: #7 NOT 'conference abstract'/it	626
#9: Language filter	Filters (language): #8 AND [english]/lim	605



Criteria	Inclusion criteria	Exclusion criteria		
Population	Adult patients with hypertension ^a	 Patients with prehypertension or elevated blood pressure Pregnant women with gestational hypertension 		
Subgroup	 Age, comorbid conditions including type 2 diabetes, CVD, chronic kidney disease and/or hyperlipidemia (based on data availability) 			
Intervention(s)	 Connected blood pressure monitors with a cuff linked via personal area network interface^b to disease management support by a case manager^c artificial intelligence only^d (as a part of active care plan^e) 	 Cuffless blood pressure monitors Telehealth without connected device, and/or personal area network interface that are not approved or available in the US 		
Comparator(s)	 Usual care via: traditional patient blood pressure measurements at the clinical setting unconnected home blood pressure monitoring 	N/A		
Outcomes	 Primary Clinical Outcomes Systolic blood pressure (mm Hg) change over time Proportion of patients achieving blood pressure control Secondary Clinical Outcomes Diastolic blood pressure (mm Hg) change over time Change in mean arterial pressure Change in frequency of blood pressure measurements Medication adherence Safety (adverse events) User experience Satisfaction Engagement Retention Health equity Access Accessibility Distribution 	N/A		
Study Design	 Clinical trials (randomized, non-randomized, or single arm) and observational studies of any sample size and SLRs^f 	Editorials, commentaries, study protocols, reviews, and case reports		
Geography	United States	N/A		
Data Sources ^g	EMBASE and MEDLINE (via PubMed)	N/A		
Date of Publication	Databases: 2014 to 2024Conferences: 2021 to 2024	N/A		
Language	• English	N/A		

Table 3. PICOTS Inclusion and Exclusion Criteria

Notes. CVD = cardiovascular disease. N/A = Not Applicable. SLR = systematic literature review. US = United States.

^aDefined per American College of Cardiology/American Heart Association blood pressure guidelines as systolic blood pressure ≥130 mm Hg and diastolic blood pressure as ≥80 mm Hg (Whelton 2018) ^bIncluding bluetooth, wifi, NFC, or ZigBee

^cDefined as a primary care physician, nurse, pharmacist, licensed medical professional, or non-medical case manager including a hypertension specialist or coach who is a part of the care or intervention team ^dAutomatic responses based on interpretive algorithms ^emust be recommended or prescribed as a result of a diagnosis of a clinical condition ^eLI De ware act outbacked for data and the putilitied for manual soferance according

^fSLRs were not extracted for data and were only be utilized for manual reference screening

^gTargeted search for company specific studies



Screening

All publications identified by the systematic literature searches were reviewed against the predefined selection criteria. Study selection followed a two-stage screening process based on the review of titles and abstracts (stage I) and full-text articles (stage II). Following completion of title/abstract review, all full texts of publications identified for inclusion during this stage were retrieved for further review. Title/abstract and full-text screening were conducted by two independent investigators with any disagreements resolved by discussion with a third independent investigator, if needed. All screening was conducted using Nested Knowledge software, which provides a platform where articles retrieved from the database searches can be organized and screened using hierarchical screening. During both screening stages, abstracts and articles were excluded based on the following criteria:

- 1. Population out of scope
- 2. Intervention out of scope
- 3. Study design or publication type out of scope
- 4. Outcomes out of scope (Applied only during full text screening phase.)
- 5. Articles published in language other than English

For conference abstracts where no poster could be located and for database abstracts without a full text available, studies were screened based on the available information within the abstract.

Data Extraction

Data were extracted by one investigator with quality assurance against the original source publication completed by another independent investigator. Table 4 lists the reported data captured for each included study.

Table 4. Data Collected

Study Information
Study identifier or trial name
Publication citation
Study type
Source of data
Timeframe of data collection
Follow-up duration
Geography
Patient Information
Specific population ^a
Sample size
Age
Sex (male, female)
Race/ethnicity
Income
Education
Rural/Urban
Systolic blood pressure level at baseline
Diastolic blood pressure level at baseline



Smoking

Comorbidities (diabetes, CKD, CVD, hyperlipidemia) Concomitant/background therapies Anti-hypertensive medication

Interventions

DHT intervention

- Definition of DHT intervention
- Technology description
- Technology delivery
- Standard of care or usual care
 - Definition of standard of care
- Add-on services included

Outcomes^b

Primary Clinical Outcomes

- Systolic blood pressure (mm Hg) change over time
- Proportion of patients achieving blood pressure control

Secondary Clinical Outcomes

- Diastolic blood pressure (mm Hg) change over time
- Change in mean arterial pressure
- Change in frequency of blood pressure measurements
- Medication adherence
- Safety (adverse events)

User experience

- Satisfaction
- User engagement
- Retention

Health equity

- Access
- Accessibility
- Distribution

Notes. CVD = cardiovascular disease. CKD = chronic kidney disease. DHT = digital health technology. ED = emergency department. HCRU = healthcare resource utilization.

^a Whether the study focused on any specific factors (age, comorbidity, etc.).

^b Included mean, median, and/or effect estimates as reported, along with corresponding uncertainty measures (e.g., 95% confidence interval).

Evidence Quality Assessment

All included randomized controlled trials (RCTs) were assessed for potential bias using the Cochrane Collaboration Risk of Bias in Randomized Trials Version 2 (RoB2).¹ The RoB2 includes a maximum of 22 questions that considers the following domains:

Domain 1: Risk of bias arising from the randomization process

Domain 2: Risk of bias due to deviations from the intended interventions (effect of assignment or adherence to intervention) Domain 3: Missing outcome data

Domain 4: Risk of bias in measurement of the outcome

Domain 5: Risk of bias in selection of the reported result

Possible ROB2 ratings are shown in Table 5.



Table 5. Risk of Bias Categories for RoB2

Rating	Criteria
Low risk of bias	The trial is judged to be at low risk of bias for all domains for this result.
Some concerns	The trial is judged to raise some concerns in at least one domain for this result, but not to be at high risk of bias for any domain.
High risk of bias	The trial is judged to be at high risk of bias in at least one domain for this result. OR The trial is judged to have some concerns for multiple domains in a way that substantially lowers confidence in the result.

Notes. RoB2 = risk of bias in randomized trials version 2.

Non-randomized / observational studies were assessed using the Newcastle-Ottawa Scale (NOS).² Studies were evaluated for multiple criteria within 3 categories: selection of groups, comparability of groups, and either exposure or outcome, depending on the type of study. Possible NOS ratings are shown in Table 6.

Table 6. Risk of Bias Rating Using NOS

Rating	Description
++	All or most of the checklist criteria have been fulfilled, where they have not been fulfilled the conclusions are very unlikely to alter.
+	Some of the checklist criteria have been fulfilled, where they have not been fulfilled or not adequately described, the conclusions are unlikely to alter.
-	Few or no checklist criteria have been fulfilled and the conclusions are likely or very likely to alter.

Notes. NOS = Newcastle Ottawa Scale.

For ease of interpretation, scales from the two Risk of Bias tools were converted to a single scale: Low, Moderate, High. "Low" refers to original ratings of "Low Risk of Bias" (ROB2) or "Good Study Quality" (NOS); "Moderate" refers to original ratings of "Some Risk of Bias" (ROB2) or "Fair Study Quality" (NOS); "High" refers to original ratings of "High Risk of Bias" (ROB2) or "Poor Study Quality" (NOS).

ICER-PHTI Assessment Framework Evidence Standards: The body of research that comprised the clinical effectiveness section was assessed against the minimum evidence requirements set forth in the ICER-PHTI framework based on the level of risk that the digital intervention presents to a user. The interventions in this digital hypertension management assessment qualify as Tier 3 according to the ICER-PHTI Assessment Framework because they support patients with a diagnosis of hypertension by integrating with or providing self-management wrap-around to the clinical care plan set forth by a patients' primary provider. While best research methods call for a randomized controlled trial, given the limited risk of harm to patients from these digital hypertension management solutions, this assessment considers all identified evidence and prioritizes any evidence meeting the minimum standards for Tier 3, which includes a relevant comparator.

ICER Evidence Rating Matrix: The body of evidence for each digital solution approach was evaluated based on effectiveness and safety that followed the ICER Evidence Rating Matrix[™] (see Figure 1).



Figure 1. The ICER Evidence Rating Matrix™



Comparative Clinical Effectiveness

- **A = "Superior"** High certainty of a substantial (moderate-large) net health benefit
- **B** = "Incremental" High certainty of a small net health benefit
- **C** = "**Comparable**" High certainty of a comparable net health benefit
- **D= "Negative"** High certainty of an inferior net health benefit
- **B+= "Incremental or Better"** Moderate certainty of a small or substantial net health benefit, with high certainty of at least a small net health benefit
- **C+ = "Comparable or Incremental"** Moderate certainty of a comparable or small net health benefit, with high certainty of at least a comparable net health benefit
- **C- = "Comparable or Inferior"** Moderate certainty that the net health benefit is either comparable or inferior, with high certainty of at best a comparable net health benefit
- **C++ = "Comparable or Better"** Moderate certainty of a comparable, small, or substantial net health benefit, with high certainty of at least a comparable net health benefit
- **P/I = "Promising but Inconclusive"** Moderate certainty of a small or substantial net health benefit, small likelihood of a negative net health benefit
- *I* = "Insufficient" Any situation in which the level of certainty n the evidence is low



Evidence Evaluation Approach

The evaluation approach is informed by expert advisors in the healthcare space, clinical advisors, and patients with a goal of producing meaningful evaluations that inform purchasing decisions.

Comparator Studies:

Digital Hypertension Management Solutions: All the solutions evaluated leverage a connected blood pressure monitor to extend traditional, in-person care or enable self-management of hypertension. The solutions vary considerably in how they approach the feedback loop between patients and providers to manage and control the patient's hypertension: (1) supplement periodic, in-office blood pressure measurements with at-home readings that transmits results electronically back to the provider, (2) provide access to teams, other than the patient's primary care provider, that support medication management and adjustments, and (3) enable better patient self-management through education, coaching, support, and reminders.

Comparator Interventions: Digital hypertension management solutions are compared to usual care, which may include a range of treatments options (e.g., home blood pressure monitoring, patient education, traditional in-office care). This assessment prioritizes studies that include comparators over single-arm studies to understand the incremental impact of digital interventions relative to usual care for lowering high blood pressure.

Clinical Outcomes: The primary clinical outcomes of clinical effectiveness are change in systolic blood pressure (SBP) and blood pressure control (BPC). Secondary clinical outcomes described in the evidence include blood pressure measurement frequency, medication adherence, medication intensity, and safety.

Comparator Studies Data: Among Comparator Studies that included more than one patient sample (e.g., uncontrolled and controlled hypertension at baseline), data from the study sample most commonly reported across all study articles was selected for interpretation of the findings. For studies missing between group differences data points (e.g., between group difference in change from baseline): values were calculated based on data provided in the study articles or, when figures or graphs were provided, digitized data values were obtained. For studies missing baseline or follow-up data points, study articles prior to the specific search timeframe were consulting. Between group comparison values were based on differences in change from baseline when reported or calculation was possible; otherwise they were based on differences at follow-up. For studies reporting on SBP, weighted averages were calculated for the between-group differences (i.e., between-group difference in mm Hg SBP by sample size of digital solutions arm).

Minimally Important Clinical Differences (MCID): Based upon the input of our clinical advisors, guidance from within studies, and external references, the report defines the MCID for the threshold for which SBP levels should decrease as 5 mm Hg or greater. We focus on MCID for evaluating study findings, but also consider statistical significance.

User Experience and Health Equity: Patient willingness to use digital hypertension management solutions, including the frequency and duration of which they use it to collect blood pressure readings, is essential to facilitating the feedback loop between patients and providers that guide hypertension care management. The assessment includes data on patients' user experience, satisfaction, and engagement with the solutions. In addition, patient sociodemographic characteristics were used to better understand how the solutions performed in different patient subgroups.



Economic Assessment

PHTI developed a *de novo* budget impact analysis for digital hypertension management solutions for adults with hypertension. The time horizon was up to 3 years, though longer-term impacts were also considered. A hypothetical U.S. health plan with 1,000,000 members that initiated blood pressure monitoring via a connected digital solution or usual care and were followed until the end of the time horizon. The analysis estimates the budget impact of digital hypertension management solutions assuming 25% displacement of usual care (i.e., market share of 25%). The analysis focused on 3 distinct approaches to hypertension management, determined by company offerings.

The budget impact model schematic is presented in Figure 1. Patients enter the model and receive usual care in the scenario without a digital hypertension management solution, or a mix of usual care and a digital hypertension management solution management solution reimbursed. The budget impact is the difference in costs between these scenarios. The base case model estimates the impact on costs of preventing cardiovascular disease events via a decrease in systolic blood pressure, as well as drug costs, office visit costs, and the cost of the digital solution in all scenarios. Further details on cost inputs are presented below.



Figure 2: Budget Impact Model Schematic

Notes. CVD = cardiovascular disease. DHT = digital health technology.

Intervention: The interventions in the budget impact analysis were hypothetical digital hypertension management solutions based on 3 approaches: (1) **Blood Pressure Monitoring**, (2) **Medication Management**, and (3) **Behavior Change**.

Comparator: The comparator for this analysis was "usual care", which is defined as in-person blood pressure monitoring (at home or in an outpatient setting).



Results: The budget impact analysis reports the following results across commercial, Medicare, and Medicaid populations:

- Total costs for digital hypertension management solutions and usual care scenarios
- Incremental cost per user per year (PUPY)
- Incremental cost per member per Month (PMPM).

The model also estimates 10-year cardiovascular events and costs avoided for heat attack, stroke, and heart failure, as well as avoided deaths.

Scenario Analysis: The model includes one alternative scenario using self-measured blood pressure (SMBP) billing codes. The scenario analysis assumes billing of the maximum Medicare allowed amount of \$214 annually for SMBP services, which includes one month of set up and 12 months of SMBP data monitoring.³

Model Assumptions and Limitations:

- 25% of patients who regularly monitor their blood pressure and would participate in a digital program.
- Heart attack, stroke, and heart failure are the only cardiovascular disease events considered in the analysis as these are the most commonly reported and costly events.
- Risk of cardiovascular disease events are estimated using the Pooled Cohort Equations (PCE)⁴, which is the underlying algorithm used in the American College of Cardiology's Atherosclerotic Cardiovascular Disease Risk Estimator + Tool.⁵
- Using 10-year risks of cardiovascular disease events derived using the PCE, we used an annual risk for each year in the budget impact time horizon assuming a linear distribution.
- Changes in systolic blood pressure for each arm, informed by clinical data sources, are assumed to stay constant for the duration of the budget impact time horizon to estimate cardiovascular disease event risk. This may over- or underestimate the true risk of cardiovascular disease events.
- Medication use is assumed to be equal and remain constant over the years between patients that use digital hypertension management solutions and usual care.
- The model does not assume alternate billing for clinical pharmacists or care teams that may monitor patient data and adjust medication therapy.
- Where needed, health plan-specific costs were derived by multiplying costs identified in the literature by published Medicare to Medicaid and Medicare to Commercial cost ratios.^{6,7}

Analysis Inputs

Patient Population: The eligible patient population for the analysis was U.S. adults with hypertension that regularly monitor their blood pressure. Per the American College of Cardiology/American Heart Association guidelines⁸, hypertension is classified by systolic blood pressure of >130 mm Hg or diastolic blood pressure of >80 mm Hg. Based on data from a National Health and Nutrition Examination Survey, it is estimated that



45.1%, 74.1%, and 47.3% of patients have diagnosed hypertension in commercial, Medicare, and Medicaid plans respectively.⁹ For commercial plans, the prevalence is assumed equal to the age-adjusted prevalence of hypertension. For Medicare and Medicaid, the prevalence among those aged 60+ and of those within <130% of the federal poverty line were used as proxies. Patient population funnel inputs are presented in Table 7. The patient funnel diagrams are presented in Figure 2.

Table	7:	Eliaible	Population	Inputs
	•••		· opulation	mpare

Criteria	Commercial	Medicare	Medicaid	Source
Plan population	1,000,000	1,000,000	1,000,000	Assumption
Proportion of plan that is adults	78.9%	99.2%	48.7%	ACS 2022 ¹⁰
Prevalence of diagnosed hypertension	45.1%	74.1%	47.3%	Stierman et al. 2021 ¹¹
Patients who regularly monitor blood pressure	51.2%	51.2%	51.2%	Springer et al. 2022 ¹²





Figure 3: Population Funnels for a 1 Million-Member Health Plan

Notes. DHT = digital hypertension technology.



Cost: Cost inputs for the budget impact analysis were informed by a targeted literature review and company-provided data. All inputs were inflated from the source to 2023 U.S. dollars where needed using the annual Consumer Price Index for medical care.¹³ For each perspective, Medicare to Commercial¹⁴ and Medicare to Medicaid¹⁵ payment rate conversions for inpatient and outpatient services were applied to the source cost to reflect the cost input for each payer perspective. These ratios are presented in Table 8.

Table 8: Health Plan Cost Conversions

Health Plan	Inpatient Services	Outpatient Services	Source
Medicare to Commercial	240%	182%	Congressional Budget Office ¹⁶
Medicare to Medicaid	78%	70%	Commonwealth Fund ¹⁷

Usual Care Cost: The model included the cost of a one-time in-person blood pressure monitor reimbursed at \$31.99 collected from RedBook¹⁸ using a price for an unconnected blood pressure cuff monitor. *Digital Hypertension Management Solution Program Costs:* Digital hypertension management solutions costs were informed by Medicare remote patient monitoring billing for **Blood Pressure Monitoring** and **Medication Management** solutions and company pricing data for **Behavior Change** solutions. Costs were incurred monthly up to 1 year.

- Blood Pressure Monitoring and Medication Management solutions: \$60.39 per member per month
 - Centers for Medicare and Medicaid Services (CMS) utilization code data from 2022 for remote patient monitoring (RPM) current procedural terminology (CPT) codes were used to assume providers typically annually bill one month of setup, 5 months of device supply and monitoring, 5 months of care management, and 6 months of additional care management.¹⁹
 - 99453 (\$19.65) Initial set-up & patient education on equipment (one-time fee).
 - 99454 (\$46.83) remote physiologic monitoring device(s) supply with daily recording(s) or programmed alert(s) transmission; every 30 days
 - 99457 (\$48.14) remote physiologic monitoring management services, physician/other qualified healthcare professional time requiring interactive communication with the patient/caregiver during the calendar month; first 20 minutes
 - 99458 (\$38.64) remote physiologic monitoring management services, physician/other qualified healthcare professional time requiring interactive communication with the patient/caregiver during the calendar month; additional 20 minutes²⁰
- Behavior Change solutions: \$39 per member per month²¹

The prices for **Blood Pressure Monitoring** and **Medication Management** solutions apply the health plan cost conversions as the price is based on Medicare RPM billing codes; monthly costs for **Behavior Change** solutions apply regardless of plan and are not converted.

Healthcare Resource Use Costs: The budget impact analysis considers the cost of cardiovascular disease events and hospitalization, outpatient visits, and drug costs for hypertension management.

The model uses the American College of Cardiology/American Heart Association PCE to estimate the 10year risk of development of atherosclerotic cardiovascular disease risk²², which is defined as nonfatal



myocardial infarction or coronary heart disease death or fatal or nonfatal stroke. For simplicity, the model includes heart attack, stroke, heart failure, and coronary heart disease death as events in the analysis.

The PCE use age, race, sex, total and high-density lipoprotein cholesterol levels, treated systolic blood pressure, and whether patients are diabetic or smokers as regression variables to calculate cardiovascular disease risk. The analysis assumes that all patient characteristics, other than the impact on systolic blood pressure, remain equal between the digital solution and usual care arm. Demographic characteristics (age, race and sex) were specified for the commercial, Medicare and Medicaid plans. For the Medicare plan, the model uses a weighted average of Medicare Advantage and Fee for Service demographic characteristics for hypertension patients based on an Avalere Health analysis.²³ Given lack of hypertension-specific data, the model relies on characteristics from Stierman et al. for race and gender estimates for commercial and Medicaid.²⁴ Since data in Stierman was not reported by both age and income level, the model assumes an average age from selected clinical studies from each approach for commercial and Medicaid.^{25,26,27,28} Given the much higher prevalence of hypertension in patients aged 65+²⁹, the model estimates an average age of 65. For the purpose of using the equations and in line with patient characteristics from the literature, the model assumes the binary variables of having diabetes and being smokers to be 0. Total and high-density lipoprotein cholesterol levels were assumed at 173 mg/dL and 58 mg/dL, respectively, based on data available from Petito et al.³⁰

Equations for use in Excel were taken from the appendix of Goff et al.³¹ and the analysis assumes a weighted average risk based on the results from the equations specific to white men, white women, black men, and black women, with weights derived from the data described above for each plan.

Characteristic	Commercial	Source	Medicare	Source	Medicaid	Source
Age (year)	65	Average from clinical studies ^{32,33,34,35}	73	Avalere Analysis of	65	Average from clinical studies ^{37,38,39,40}
Proportion that are black	15%	Stierman et al 41	15%	Medicare Advantage Enrollee Demographics ³⁶	15%	Stierman et al 42
Proportion that are women	46%	Stierman et al.	57%	Demographics	53%	Suerman et al

Table 9: Demographic Characteristics by Plan

Average between group differences in SBP (between the digital solutions and usual care) were weighted by the sample size of the digital solution arm. Baseline SBP was calculated as an average of baseline SBP values in all comparative studies across all arms and approaches. Average reduction in SBP for usual care was calculated from all studies across all approaches. Detailed inputs are described in Table 10.



	Table 10: Systolic	Blood Pressur	e Inputs by	Approach
--	--------------------	---------------	-------------	----------

Digital Hypertension Management Solution Approach	Baseline SBP	Average reduction in SBP for usual care	Weighted average change in SBP between digital solution and usual care	Resulting SBP (usual care)	Resulting SBP (digital solution)
Blood Pressure Monitoring ^{43,44,45,46}	146.7	-5.0	-3.4	141.6	138.2
Medication Management ^{47,48,49,50,51,52}	146.7	-5.0	-7.1	141.6	134.5
Behavior Change ^{53,54,55,56,57,58}	146.7	-5.0	-1.0	141.6	140.6

Notes. SBP = systolic blood pressure.

Results of the PCE for are found in Table 11. Given the analysis time horizon of 3 years, the model annualizes the PCE calculated risks, assuming even distribution of cardiac events across 10 years. This assumption was based on several cohort studies^{59,60,61} which estimated the incidence of cardiovascular disease events over time based on various risk factors; cardiovascular disease incidence had a generally linear increase over the time horizons across these studies.

Table 11: Derived Cardiovascular Disease Event Risk

		Annualized Risk	
Treatment Arm	Commercial	Medicare	Medicaid
Usual Care	1.21%	2.28%	1.17%
Blood Pressure Monitoring solution	1.16%	2.19%	1.12%
Medication Management solution	1.11%	2.10%	1.06%
Behavior Change solution	1.20%	2.26%	1.15%

For the proportion of patients experiencing a cardiovascular disease event, event costs were estimated based on costs and probabilities in Table 12. These inputs were identified from published U.S. cohort studies and prior cost-effectiveness analyses where cardiovascular disease events for commercial insurance were estimated. Costs for Medicare and Medicaid were adjusted using standard pricing ratios.^{62,63} For non-fatal events, 1st, 2nd, and 3rd years costs were incurred given the anticipated additional healthcare resource use in subsequent years for these patients beyond additional hospitalization. A probability of each event being fatal was estimated. Costs for fatalities were estimated using the cost of coronary heart disease death instead of event-specific costs.

|--|

Event	Costs, Year 1 ⁶⁴	Costs, Year 2 ⁶⁵	Costs, Year 3 ⁶⁶	Probability, Fatal	Distribution ⁶⁷
Myocardial Infarction	\$52,671	\$8,105	\$7,052	14% ⁶⁸	36%
Stroke	\$36,560	\$7,679	\$6,652	4% ⁶⁹	38%
Heart Failure	\$45,514	\$17,525	\$17,638	12% ⁷⁰	26%
Coronary Heart Disease Death	\$20,225 ⁷¹	N/A	N/A	100%	N/A

Notes. N/A = not applicable.



The annual frequency of office visits was taken from Petito et al. 2023⁷² which was a prospective cohort study evaluating the utilization of remote patient monitoring comparted to matched controls using electronic health records. The study measured the number of office visits/telehealth encounters for each arm during the study period. The model assumes that after the duration of program billing (12 months), the frequency of office visits for the digital solution arm becomes equal to the frequency of visits for usual care. The proportion of patients with each number of office visits is presented in Table 13.

Frequency	Digital Arm	Usual Care
0	0.7%	6.3%
1	14.2%	19.8%
2	24.7%	23.4%
3	19.8%	18.8%
4+	40.6%	31.7%

Table 13: Office Visit Frequency

Assuming 5 visits for the 4+ band, the analysis uses a weighted average of 3.3 annual office visits for the digital arm and 2.8 visits for the usual care arm. The increase in office visits from the digital solution was similar to a separate study that observed patients using the digital solution in commercial plans had 2.13 visits compared to 1.88 visits in the control group.⁷³ The model assumes the cost of an office visit to be \$90.88 from the Medicare perspective, using CPT code 99213 from the CMS Physician Fee Schedule.⁷⁴ Drug utilization was based on a National Health and Nutrition Examination Survey of trends in antihypertensive medication among adults.⁷⁵ Data for medication classes with greater than or equal to 5% utilization were included and were reweighted to sum to 100%. The model estimates utilization among the uncontrolled blood pressure cohort (systolic blood pressure \geq 140 mm HG or diastolic blood pressure \geq 90 mm Hg) from this study.

The proportion of hypertension patients using any antihypertensive medication was 59.6%⁷⁶, which was used as a multiplier to derive total drug costs per arm. Annual costs were derived using the dosing schedules in the package inserts and the cheapest cost per pack for each drug from RedBook.⁷⁷ Inputs for drug costs are presented in Table 14.

Medication Class	Selected Regimen	Annual Cost	Digital Blood Pressure Monitoring Utilization ⁷⁸	Usual Care Utilization ⁷⁹
ACEI/ARB	Benazepril	\$249	25.9%	25.9%
Beta-blocker	Acebutolol	\$472	8.8%	8.8%
Diuretic	Hydrochlorothiazide	\$26	6.1%	6.1%
ССВ	Amlodipine	\$14	7.7%	7.7%
ACEI/ARB + diuretic	Benazepril + Hydrochlorothiazide	\$275	15.9%	15.9%
ACEI/ARB + Beta- blocker	Benazepril + Acebutolol	\$721	7.3%	7.3%
ACEI/ARB + CCB	Benazepril + Amlodipine	\$263	8.6%	8.6%

Table 14: Medication Regimen and Costs



ACEI/ARB + Beta- blocker + diuretic	Benazepril + Hydrochlorothiazide + Acebutolol	\$747	6.9%	6.9%
ACEI/ARB + CBB + diuretic	Benazepril + Amlodipine + Hydrochlorothiazide	\$289	6.3%	6.3%
ACEI/ARB + Beta- blocker + CBB	Benazepril + Amlodipine + Acebutolol	\$734	6.6%	6.6%

Notes. ACEI = angiotensin converting enzyme inhibitor. ARB = angiotensin-II receptor blocker. CCB = calcium channel blocker.



Appendix B – SLR Studies, Company-specific Clinical Citations and HCRU Data

Appendix B-1 – 73 Study Articles Included in the SLR

Study Articles	Article Type	Study Category	Data Source	Full Reference
AMC Health				
Asche 2016	Full Text	I	Online Databases & Conference Proceedings	Asche, Stephen E., Patrick J. O'Connor, Steven P. Dehmer, et al., "Patient Characteristics Associated with Greater Blood Pressure Control in a Randomized Trial of Home Blood Pressure Telemonitoring and Pharmacist Management." <i>Journal of the American Society of Hypertension</i> 10, no. 11 (2016): 873-880. https://doi.org/10.1016/j.jash.2016.09.004.
Beran 2018	Full Text	I	Online Databases & Conference Proceedings	Beran, MarySue, Stephen E. Asche, Anna R. Bergdall, et al., "Key Components of Success in a Randomized Trial of Blood Pressure Telemonitoring with Medication Therapy Management Pharmacists," <i>Journal of the American Pharmacists Association</i> 58, no. 6 (2018): 614–621. https://doi.org/10.1016/j.japh.2018.07.001
Margolis 2015	Full Text	Ι	Online Databases & Conference Proceedings	Margolis, Karen L., Stephen E. Asche, Anna R. Bergdall, et al., "A Successful Multifaceted Trial to Improve Hypertension Control in Primary Care: Why Did it Work?" <i>Journal of General Internal</i> <i>Medicine</i> 30 (2015): 1665–1672. <u>https://doi.org/10.1007/s11606-015-3355-x</u>
Margolis 2018	Full Text	I	Online Databases & Conference Proceedings	Margolis, Karen L., Stephen E. Asche, Steven P. Dehmer, et al., "Long-Term Outcomes of the Effects of Home Blood Pressure Telemonitoring and Pharmacist Management on Blood Pressure Among Adults with Uncontrolled Hypertension: Follow-up of a Cluster Randomized Clinical Trial," <i>JAMA Network Open</i> 1, no. 5 (2018): e181617. <u>https://doi.org/10.1001/jamanetworkopen.2018.1617</u>
Margolis 2020	Full Text	I	Online Databases & Conference Proceedings	Margolis, Karen L., Steven P. Dehmer, JoAnn Sperl-Hillen, et al., "Cardiovascular Events and Costs with Home Blood Pressure Telemonitoring and Pharmacist Management for Uncontrolled Hypertension," <i>Hypertension</i> 76, no. 4 (2020): 1097–1103. https://doi.org/10.1161/HYPERTENSIONAHA.120.15492.
Margolis 2022	Full Text	I	Online Databases & Conference Proceedings	Margolis, Karen L., Anna R. Bergdall, A. Lauren Crain, et al., "Comparing Pharmacist-Led Telehealth Care and Clinic-Based Care for Uncontrolled High Blood Pressure: The Hyperlink 3 Pragmatic Cluster-Randomized Trial," <i>Hypertension</i> 79, no. 12 (2022): 2708–2720. https://doi.org/10.1161/hypertensionaha.122.19816
Pawloski 2016	Full Text	I	Online Databases & Conference Proceedings	Pawloski, Pamala A., Stephen E. Asche, Nicole K. Trower, et al., "A Substudy Evaluating Treatment Intensification on Medication Adherence Among Hypertensive Patients Receiving Home Blood Pressure Telemonitoring and Pharmacist Management," <i>Journal of Clinical Pharmacy and</i> <i>Therapeutics</i> 41, no. 5 (2016): 493–498. <u>https://doi.org/10.1111/jcpt.12414</u> .

Cadence				
Feldman 2023	Abstract/ Poster	Ο	Online Databases & Conference Proceedings	Feldman, David I., Marcus L. Campbell, Sarine Babikian, et al., "A Nationwide Remote Patient Intervention Hypertension Program: Can Remote Patient Monitoring and a Multi-Disciplinary Team of Clinicians Improve Blood Pressure Control?" <i>Circulation</i> 148, no. S1 (2023): A12950. <u>https://doi.org/10.1161/circ.148.suppl_1.12950</u>
Hello Heart				
Gazit 2021	Full Text	0	Online Databases & Conference Proceedings	Gazit, Tomer, Michal Gutman, and Alexis L. Beatty, "Assessment of Hypertension Control Among Adults Participating in a Mobile Technology Blood Pressure Self-Management Program," <i>JAMA Network Open</i> 4, no. 10 (2021): e2127008. <u>https://doi.org/10.1001/jamanetworkopen.2021.27008</u>
Kaplan 2017	Full Text	0	Online Databases & Conference Proceedings	Kaplan, Alan L., Erica R. Cohen, and Eyal Zimlichman, "Improving Patient Engagement in Self- Measured Blood Pressure Monitoring Using a Mobile Health Technology," Health information Science and Systems 5 (2017): 1–9. https://doi.org/10.1007/s13755-017-0026-9
Paz 2024	Full Text	0	Company- provided Data	Paz, Edo, Vedant S. Pargaonkar, Brian J. Roach, et al., "Comprehensive Cardiovascular Risk Factor Control with a Mobile Health Cardiovascular Risk Self-Management Program," <i>Journal of the</i> <i>American Heart Association</i> 13, no. 10 (2024): e033328. https://doi.org/10.1161/JAHA.123.033328
Roberts 2022	Abstract/ Poster	0	Online Databases & Conference Proceedings	Roberts, Jenn, Brian Roach, Tomer Gazit, et al., "Efficacy of a Digital Hypertension Self- Management and Lifestyle Coaching Program in Reducing Blood Pressure Across Sex, Language and Racial Groups," <i>Hypertension</i> 79, no. Suppl. 1 (2022): 302. <u>https://doi.org/10.1161/hyp.79.suppl_1.p302</u>
Lark				
Branch 2022	Full Text	0	Online Databases & Conference Proceedings	Branch, OraLee H., Mohit Rikhy, Lisa A. Auster-Gussman, et al., "Relationships Between Blood Pressure Reduction, Weight Loss, and Engagement in a Digital App-Based Hypertension Care Program: Observational Study," <i>JMIR Formative Research</i> 6, no. 10 (2022): e38215. https://doi.org/10.2196/38215
Graham 2021	Full Text	0	Online Databases & Conference Proceedings	Graham, Sarah A., Natalie Stein, Fjori Shemaj, OraLee H. Branch, et al., "Older Adults Engage with Personalized Digital Coaching Programs at Rates That Exceed Those of Younger Adults," <i>Frontiers in Digital Health</i> 3, (2021): 642818. <u>https://doi.org/10.3389/fdgth.2021.642818</u>

Study Articles	Article Type	Study Category	Data Source	Full Reference
Persell 2020	Full Text	I	Online Databases & Conference Proceedings	Persell, Stephen D., Yaw A. Peprah, Dawid Lipiszko, et al., "Effect of Home Blood Pressure Monitoring Via a Smartphone Hypertension Coaching Application or Tracking Application on Adults with Uncontrolled Hypertension: A Randomized Clinical Trial," <i>JAMA Network Open</i> 3, no. 3 (2020): e200255. https://doi.org/10.1001/jamanetworkopen.2020.0255

Ochsner Digita	I Medicine				
Milani 2017	Full Text	0	Online Databases & Conference Proceedings	Milani, Richard V., Carl J. Lavie, Robert M. Bober, et al., "Improving Hypertension Control and Patient Engagement Using Digital Tools," <i>The American Journal of Medicine</i> 130, no. 1 (2017): 14–20.	
Milani 2020	Full Text	0	Online Databases & Conference Proceedings	Milani, Richard V., Jonathan K. Wilt, Alexander R. Milani, et al., "Digital Management of Hypertension Improves Systolic Blood Pressure Variability," <i>The American Journal of Medicine</i> 133, no. 7 (2020): e355–e359. <u>https://doi.org/10.1016/j.amjmed.2019.10.043</u>	
Milani 2022	Full Text	0	Online Databases & Conference Proceedings	Milani, Richard V., Eboni G. Price-Haywood, Jeffrey H. Burton, et al., "Racial Differences and Social Determinants of Health in Achieving Hypertension Control," <i>Mayo Clinic Proceedings</i> 97, no. 8 (2022): 1462–1471. <u>https://doi.org/10.1016/j.mayocp.2022.01.035</u>	
Omada Health					
Wilson- Anumudu 2022	Full Text	0	Online Databases & Conference Proceedings	Wilson-Anumudu, Folasade, Ryan Quan, Christian Cerrada, et al., "Pilot Results of a Digital Hypertension Self-Management Program Among Adults with Excess Body Weight: Single-Arm Nonrandomized Trial," <i>JMIR Formative Research</i> 6, no. 3 (2022): e33057. https://doi.org/10.2196/33057	
Wu 2023	Full Text	0	Online Databases & Conference Proceedings	Wu, Justin, Jenna Napoleone, Sarah Linke, et al., "Long-Term Results of a Digital Hypertension Self-Management Program: Retrospective Cohort Study," <i>JMIR Cardio</i> 7 (2023): e43489. https://doi.org/10.2196/43489	
Teladoc (Livon	go)				
Dzubur 2023	Full Text	0	Online Databases & Conference Proceedings	Dzubur, Eldin, Jessica Samantha Yu, Julia E. Hoffman, et al., "Effects of Program Enrollment in a Digital Multiple Health Behavior Change Intervention on Clinical Outcomes," version 1, Research Square (preprint), April 3, 2023. <u>https://doi.org/10.21203/rs.3.rs-2530128/v1</u>	
Dzubur 2021	Abstract/ Poster	Ο	Company- provided Data	Dzubur, Eldin, Roberta James, and Bimal Shah, "The Effects of a Remote Hypertension Management Program on Proportion of Days Covered (PDC)," <i>Journal of the American College of</i> <i>Cardiology</i> 77, no. 18 Suppl. 1 (2021): 3267–3267. <u>https://doi.org/10.1016/S0735-1097(21)04621-0</u>	

Study Articles	Article Type	Study Category	Data Source	Full Reference
Shah 2022	Full Text	0	Online Databases & Conference Proceedings	Shah, Nishant P., Robert M. Clare, Karen Chiswell, et al., "Trends of Blood Pressure Control in the U.S. During the COVID-19 Pandemic," <i>American Heart Journal</i> 247 (2022): 15–23. https://doi.org/10.1016/j.ahj.2021.11.017

VitalSight (Omron Healthcare)					
Persell 2021	Abstract/ Poster	0	Online Databases & Conference Proceedings	Persell, Stephen D., Lauren Anthony, Yaw Peprah, et al., "A Pilot Study of Remote Patient Monitoring for Hypertension in Primary Care," <i>Circulation</i> 144, no. S1 (2021): A12360. <u>https://doi.org/10.1161/circ.144.suppl_1.12360</u>	
Persell 2022a	Abstract/ Poster	Ο	Online Databases & Conference Proceedings	Persell, Stephen D., Lucia Petito, Ji Young Lee, et al., "Blood Pressure Outcomes After 9 Months with Remote Patient Monitoring for Hypertension in Primary Care: A Prospective Cohort Study in Electronic Health Records Using Propensity Score Matching," <i>Circulation</i> 146, no. Suppl. 1 (2022): A12895. <u>https://doi.org/10.1161/circ.146.suppl_1.12895</u>	
Persell 2022b	Abstract/ Poster	Ο	Online Databases & Conference Proceedings	Persell, Stephen, Lauren Anthony, Yaw Peprah, et al., "A Pilot Study of Remote Patient Monitoring with and Without Care Management Support for Hypertension in Primary Care," <i>Journal of the American College of Cardiology</i> 79, no. 9 Supplement (2022): 1574. <u>https://doi.org/10.1016/s0735-1097(22)02565-7</u>	
Persell 2023	Full Text	0	Online Databases & Conference Proceedings	Persell, Stephen D., Lucia C. Petito, Lauren Anthony, et al., "Prospective Cohort Study of Remote Patient Monitoring with and Without Care Coordination for Hypertension in Primary Care," <i>Applied Clinical Informatics</i> 14, no. 3 (2023): 428–438. <u>https://doi.org/10.1055/a-2057-7277</u>	
Persell 2024	Full Text	Ο	Online Databases & Conference Proceedings	Persell, Stephen D., Lauren Anthony, Yaw A. Peprah, et al., "Blood Pressure Outcomes at 18 Months in Primary Care Patients Prescribed Remote Physiological Monitoring for Hypertension: A Prospective Cohort Study," <i>Journal of Human Hypertension</i> 38, no. 3 (2024): 286–288. <u>https://doi.org/10.1038/s41371-024-00904-7</u>	
Petito 2023a	Full Text	Ο	Online Databases & Conference Proceedings	Petito, Lucia C., Lauren Anthony, Yaw Peprah, et al., "Blood Pressure Outcomes at 12 Months in Primary Care Patients Prescribed Remote Physiological Monitoring for Hypertension: A Prospective Cohort Study," <i>Journal of Human Hypertension</i> 37, no. 12 (2023): 1091–1097. https://doi.org/10.1038/s41371-023-00850-w	
Petito 2023b	Full Text	0	Online Databases & Conference Proceedings	Petito, Lucia C., Lauren Anthony, Yaw Amofa Peprah, et al., "Remote Physiologic Monitoring for Hypertension in Primary Care: A Prospective Pragmatic Pilot Study in Electronic Health Records Using Propensity Score Matching," <i>JAMIA Open</i> 6, no. 1 (2023): ooac111. <u>https://doi.org/10.1093/jamiaopen/ooac111</u>	

Study Articles	Article Type	Study Category	Data Source	Full Reference	
Other	-	-			
Abel 2022	Abstract/ Poster	I	Online Databases & Conference Proceedings	Abel, Willie M., and Jimmy T. Efrid, "Use of Coaching and Technology to Improve Blood Pressure Control in Black Women with Hypertension," <i>Hypertension</i> 79 (2022): AP211. https://doi.org/10.1161/hyp.79.suppl 1.p211	
Abel 2023	Full Text	I	Online Databases & Conference Proceedings	Abel, Willie M., Jimmy T. Efird, Patricia B. Crane, et al., "Use of Coaching and Technology to mprove Blood Pressure Control in Black Women with Hypertension: Pilot Randomized Controlled Trial Study," <i>The Journal of Clinical Hypertension</i> 25, no. 1 (2023): 95–105. https://doi.org/10.1111/jch.14617	
Angellotti 2019	Full Text	0	Online Databases & Conference Proceedings	Angellotti, Edith, John B. Wong, Ayal Pierce, et al., "Combining Wireless Technology and Behavioral Economics to Engage Patients (WiBEEP) with Cardiometabolic Disease: A Pilot Study." <i>Pilot and Feasibility Studies</i> 5 (2019): 1-6. https://doi.org/10.1186/s40814-019-0395-8.	
Blood 2023	Full Text	0	Online Databases & Conference Proceedings	Blood, Alexander J., Christopher P. Cannon, William J. Gordon, et al., "Results of a Remotely Delivered Hypertension and Lipid Program in More Than 10,000 Patients Across a Diverse Health Care Network," <i>JAMA Cardiology</i> 8, no. 1 (2023): 12–21. https://doi.org/10.1001/jamacardio.2022.4018	
Buis 2020	Full Text	0	Online Databases & Conference Proceedings	Buis, Lorraine R., Dana N. Roberson, Reema Kadri, et al., "Understanding the Feasibility, Acceptability, and Efficacy of a Clinical Pharmacist-Led Mobile Approach (BPtrack) to Hypertension Management: Mixed Methods Pilot Study," <i>Journal of Medical Internet Research</i> 22, no. 8 (2020): e19882. <u>https://doi.org/10.2196/19882</u>	
Buis 2024	Full Text	I	Online Databases & Conference Proceedings	Buis, Lorraine R., Junhan Kim, Ananda Sen, et al., "The Effect of an mHealth Self-Monitoring Intervention (MI-BP) on Blood Pressure Among Black Individuals with Uncontrolled Hypertension: Randomized Controlled Trial," <i>JMIR mHealth and uHealth</i> 53, no. 12 (2024): e57863. https://doi.org/10.1161/strokeaha.122.041020	
Chandler 2019	Full Text	I	Online Databases & Conference Proceedings	Chandler, Jessica, Luke Sox, Kinsey Kellam, et al. "Impact of a Culturally Tailored mHealth Medication Regimen Self-Management Program Upon Blood Pressure Among Hypertensive Hispanic Adults." <i>International Journal of Environmental Research and Public Health</i> 16, no. 7 (2019). https://doi.org/10.3390/ijerph16071226	
Ciemins 2018	Full Text	0	Online Databases & Conference Proceedings	Ciemins, Elizabeth L., Anupama Arora, Nicholas C. Coombs, et al., "Improving Blood Pressure Control Using Smart Technology," <i>Telemedicine and e-Health</i> 24, no. 3 (2018): 222–228. https://doi.org/10.1089/tmj.2017.0028	
Clark 2021	Full Text	0	Online Databases & Conference Proceedings	Clark III, Donald, Julia Woods, Yunxi Zhang, et al., "Home Blood Pressure Telemonitoring with Remote Hypertension Management in a Rural and Low-Income Population," <i>Hypertension</i> 78, no. 6 (2021): 1927–1929. <u>https://doi.org/10.1161/hypertensionaha.121.18153</u>	

Study Articles	Article Type	Study Category	Data Source	Full Reference	
Durr 2023	Full Text	0	Online Databases & Conference Proceedings	Durr, Andrya J., Craig H. Robinson, Robin A. Seabury, et al., "Evaluation of Self-Measure Blood Pressure Monitoring in a Southern Rural West Virginia Health System," <i>Rural and Remote Health</i> 23, no. 4 (2023): 1–7. <u>https://doi.org/10.22605/RRH8248</u>	
Fisher 2019	Full Text	0	Online Databases & Conference Proceedings	Fisher, Naomi DL, Liliana E. Fera, Jacqueline R. Dunning, et al., "Development of an Entirely Remote, Non-Physician Led Hypertension Management Program," <i>Clinical Cardiology</i> 42, no. 2 (2019): 285–291. <u>https://doi.org/10.1002/clc.23141</u>	
Frazier 2023	Full Text	0	Online Databases & Conference Proceedings	Frazier, William D., Michael Beins, Joan DaVanzo, et al., "Six Months of Remote Patient Monitoring s Associated with Blood Pressure Reduction in Hypertensive Patients: An Uncontrolled Observational Study." <i>Telemedicine and E-Health 29</i> , no. 8 (2023): 1164–1170. https://doi.org/10.1089/tmj.2022.0418.	
Gupta 2023	Full Text	I	Online Databases & Conference Proceedings	Gupta, Aditi, Shellie D. Ellis, Crystal Burkhardt, et al., "Implementing a Home-Based Virtual Hypertension Programme—A Pilot Feasibility Study," <i>Family Practice</i> 40, no. 2 (2023): 414–422. https://doi.org/10.1093/fampra/cmac084	
Haskell 2022	Full Text	0	Online Databases & Conference Proceedings	Haskell, Jacqueline, Emily L. Cooper, Brenda Jenkins, et al., "Feasibility of a Self-Measured Blood Pressure Monitoring Program to Reduce Uncontrolled Hypertension." <i>Rhode Island Medical Journal</i> 105, no. 8 (2022): 57–61.	
Ishak 2024	Full Text	0	Online Databases & Conference Proceedings	Ishak, Anthony M., Kenneth J. Mukamal, Julia M. Wood, et al., "Pharmacist-Led Rapid Medication Titration for Hypertension Management by Telehealth: A Quality Improvement Initiative," <i>The</i> <i>Journal of Clinical Hypertension</i> 26, no. 2 (2024): 217–220. <u>https://doi.org/10.1111/jch.14750</u>	
Kim 2014	Full Text	I	Online Databases & Conference Proceedings	Kim, Kim B., Hae-Ra Han, Boyun Huh, et al., "The Effect of a Community-Based Self-Help Multimodal Behavioral Intervention in Korean American Seniors with High Blood Pressure," <i>American Journal of Hypertension</i> 27, no. 9 (2014): 1199–1208. <u>https://doi.org/10.1093/ajh/hpu041</u>	
Kim 2016	Full Text	I	Online Databases & Conference Proceedings	Kim, Ju Young, Nathan E. Wineinger, and Steven R. Steinhubl. "The Influence of Wireless Self- Monitoring Program on the Relationship Between Patient Activation and Health Behaviors, Medication Adherence, and Blood Pressure Levels in Hypertensive Patients: A Substudy of a Randomized Controlled Trial." <i>Journal Of Medical Internet Research</i> 18, no. 6 (2016): e116. https://doi.org/10.2196/jmir.5429.	
Kim 2023	Full Text	0	Online Databases & Conference Proceedings	Kim, Katherine K., Scott P. McGrath, Juan L. Solorza, and David Lindeman, "The ACTIVATE Digital Health Pilot Program for Diabetes and Hypertension in an Underserved and Rural Community," <i>Applied Clinical Informatics</i> 14, no. 4 (2023): 644–653. <u>https://doi.org/10.1055/a-2096-0326</u>	
Laffin 2021	Abstract/ Poster	0	Online Databases & Conference Proceedings	Laffin, Luke, Cheong Ang, and Grace Chen. "Use of Remote Patient Monitoring to Improve Hypertension Control Rates in a High Risk Patient Population." <i>Journal of the American College of</i>	

Study Articles	Article Type	Study Category	Data Source	Full Reference	
				<i>Cardiology</i> 77, no. 18_Supplement_1 (2021): 3220–3220. https://doi.org/10.1016/s0735-1097(21)04575-7.	
Lee 2023	Full Text	Ο	Online Databases & Conference Proceedings	Lee, Simin Gharib, Alexander J. Blood, Christopher P. Cannon, et al., "Remote Cardiovascular Hypertension Program Enhanced Blood Pressure Control During The COVID-19 Pandemic." <i>Journal of the American Heart Association</i> 12, no. 6 (2023): e027296. https://doi.org/10.1161/jaha.122.027296.	
Liyanage-Don 2022	Abstract/ Poster	0	Online Databases & Conference Proceedings	Liyanage-Don, Nadia, Jessica R. Singer, Kelsey B. Bryant, et al., "Patient Engagement In And Revenue Potential Of A Real-World Remote Patient Monitoring Program For Hypertension." <i>Journal</i> <i>Of General Internal Medicine</i> , Vol. 37, No. Suppl 2 (2022), Pp. 157–158. https://doi.org/10.1007/s11606-022-07653-8.	
Liyanage-Don 2023a	Abstract/ Poster	0	Online Databases & Conference Proceedings	Liyanage-Don, Nadia, Brandon K. Bellows, Kelsey B. Bryant, et al., "Association Between Frequency of Home Blood Pressure Measurement and Subsequent Blood Pressure Outcomes Among Patients Enrolled in a Remote Patient Monitoring Program for Hypertension," <i>Journal of General Internal Medicine</i> 38 (2023): S107. <u>https://doi.org/10.1007/s11606-023-08226-z</u>	
Liyanage-Don 2023b	Abstract/ Poster	0	Online Databases & Conference Proceedings	Liyanage-Don, Nadia, Brandon K. Bellows, Kelsey B. Bryant, et al., "Equitable Patient Engagement in a Remote Patient Monitoring Program for Hypertension." <i>Journal of General Internal Medicine</i> no. 38:S177 (2023). https://doi.org/10.1016/j.amjmed.2019.10.043.	
Lv 2017	Full Text	0	Online Databases & Conference Proceedings	Lv, Nan, Lan Xiao, Martha L. Simmons, et al., "Personalized Hypertension Management Using Patient-Generated Health Data Integrated with Electronic Health Records (EMPOWER-H): Six-Month Pre-Post Study." <i>Journal of Medical Internet Research</i> 19, No. 9 (2017): E311. https://doi.org/10.2196/jmir.7831.	
Maciejewski 2014	Full Text	I	Online Databases & Conference Proceedings	Maciejewski, Matthew L., Hayden B. Bosworth, Maren K. Olsen, et al., "Do the Benefits of Participation in a Hypertension Self-Management Trial Persist After Patients Resume Usual Care?" <i>Circulation: Cardiovascular Quality and Outcomes</i> 7, no. 2 (2014): 269–275. <u>https://doi.org/10.1161/circoutcomes.113.000309</u>	
Makutonin 2023	Full Text	0	Online Databases & Conference Proceedings	Makutonin, Michael, Justin Dare, Mary Heekin, et al., "Remote Patient Monitoring for Hypertension: Feasibility and Outcomes of a Clinic-Based Pilot in a Minority Population," <i>Journal of Primary Care</i> & Community Health 14 (2023): 21501319231204586. <u>https://doi.org/10.1177/21501319231204586</u>	
Mallow 2018	Full Text	0	Online Databases & Conference Proceedings	Mallow, Jennifer A., Laurie A. Theeke, Elliott Theeke, et al., "The Effectiveness of mI SMART: A Nurse Practitioner Led Technology Intervention for Multiple Chronic Conditions in Primary Care." <i>International Journal of Nursing Sciences</i> 5, no. 2 (2018): 131–137. https://doi.org/10.1016/j.ijnss.2018.03.009.	

Study Articles	Article Type	Study Category	Data Source	Full Reference	
Mao 2017	Full Text	0	Online Databases & Conference Proceedings	Mao, Alice Yuqing, Connie Chen, Candy Magana, et al., "A Mobile Phone-Based Health Coaching Intervention for Weight Loss and Blood Pressure Reduction in a National Payer Population: A Retrospective Study." <i>JMIR Mhealth And Uhealth</i> 5, No. 6 (2017): E7591. https://doi/org/10.2196/mhealth.7591.	
Naqvi 2022	Full Text	I	Online Databases & Conference Proceedings	Naqvi, Imama A., Kevin Strobino, Ying Kuen Cheung, et al., "Telehealth After Stroke Care Pilot Randomized Trial of Home Blood Pressure Telemonitoring in an Underserved Setting," <i>Stroke</i> 53, no. 12 (2022): 3538–3547. <u>https://doi.org/10.1161/strokeaha.122.041020</u>	
Paiva 2023	Abstract/ Poster	0	Online Databases & Conference Proceedings	Paiva, Cody J. and Brinton Clark. "A Pilot Study to Determine Efficacy of Bluetooth- Enabled Home Blood Pressure Monitoring in the Management of Hypertension." <i>Journal of General Internal Medicine</i> (2023): 38:S105–S106. https://doi.org/10.1007/s11606-023-08226-z.	
Park 2021	Full Text	0	Online Databases & Conference Proceedings	Park, Sulki, Hye-Chung Kum, Michael A. Morrisey, et al., "Adherence to Telemonitoring Therapy for Medicaid Patients with Hypertension: Case Study." <i>Journal of Medical Internet Research</i> 23, no. 9 (2021): e29018. https://doi.org/10.2196/29018.	
Pletcher 2022	Full Text	I	Online Databases & Conference Proceedings	Pletcher, Mark J., Valy Fontil, Madelaine Faulkner Modrow, et al., "Effectiveness of Standard vs Enhanced Self-Measurement of Blood Pressure Paired with a Connected Smartphone Application: A Randomized Clinical Trial," <i>JAMA Internal Medicine</i> 182, no. 10 (2022): 1025–1034.	
Poblete 2022	Abstract/ Poster	0	Online Databases & Conference Proceedings	Poblete, Jacqueline, Earl Felisme, Paloma Mohn, et al., "Feasibility and Acceptability of a Digitally- Based Blood Pressure Self-monitoring Program that Promotes Hypertension Self-Management and Health Education Among Low Income Patients." <i>Hypertension</i> (2022), vol. 79. <u>https://doi.org/10.1161/hyp.79.suppl 1.p009</u>	
Reddy 2022	Abstract/ Poster	0	Online Databases & Conference Proceedings	Reddy, Tina K., Daphne P. Ferdinand, Madeline Wegener, et al., "Simple Text-Messaging and Social Support to Increase Hypertension Medication Adherence in Non-Hispanic Black Adults in New Orleans, LA." <i>Circulation</i> 146, no. Suppl_1 (2022): A11679-A11679. https://doi.org/10.1161/circ.146.suppl_1.11679	
Sears 2021	Abstract/ Poster	0	Online Databases & Conference Proceedings	Sears, Lindsay, Jamillah Hoy-Rosas, Kai Prenger, et al., "One Drop's Multicondition Program is Associated with Blood Pressure Reduction in Employees with High Blood Pressure and Maintenance for Employees with Blood Pressure in Range." <i>Circulation</i> 144, no. Suppl_1 (2021): A11410-A11410. <u>https://doi.org/10.1161/circ.144.suppl-1.11410</u>	
Shah 2023	Abstract/ Poster	0	Online Databases & Conference Proceedings	Shah, Samir, Maria Hartley, Jordan Rodriguez, et al., "Predictors of Time in Target Range in a Comprehensive Self-Measured Blood Pressure Program in a Socially and Economically Disadvantaged Primary Care Population." <i>Circulation</i> 148, no. Suppl_1 (2023): A17939-A17939. https://doi.org/10.1161/circ.148.suppl_1.17939	

Study Articles	Article Type	Study Category	Data Source	Full Reference	
Shane- McWhorter 2014	Full Text	0	Online Databases & Conference Proceedings	Shane-McWhorter, Laura, Leslie Lenert, Marta Petersen, et al., "The Utah Remote Monitoring Project: Improving Health Care One Patient at a Time," <i>Diabetes Technology & Therapeutics</i> 16, no. 10 (2014): 653–660. <u>https://doi.org/10.1089/dia.2014.0045</u>	
Singer 2023	Abstract/ Poster	0	Online Databases & Conference Proceedings	Singer J, De Miguel M, Dandan N, et al., "Implementation of a Pharmacist-Supported Home Blood Pressure Monitoring Program in a Primary Care Practice Staffed by Internal Medicine Residents." <i>Journal of General Internal Medicine</i> (2023): 38:S663. <u>https://doi.org/10.1007/s11606-023-08226-z</u>	
Smith 2023	Abstract/ Poster	0	Online Databases & Conference Proceedings	Smith, Westley, Dean Caven, Alex Erwing, et al., "Asynchronous Management Of Hypertension: The Effectiveness Of Remote Patient Monitoring In Mixed Populations." <i>Hypertension</i> 80, no. Suppl_1 (2023): AP332. <u>https://doi.org/10.1161/hyp.80.suppl_1.p332</u>	
Taber 2018	Full Text	I	Online Databases & Conference Proceedings	Taber, David J., Mulugeta Gebregziabher, Aurora Posadas, et al., "Pharmacist-Led, Technology- Assisted Study to Improve Medication Safety, Cardiovascular Risk Factor Control, and Racial Disparities in Kidney Transplant Recipients." <i>Journal of the American College of Clinical Pharmacy</i> 1, no. 2 (2018): 81–88. <u>https://doi.org/10.1002/jac5.1024</u>	
Tani 2017	Full Text	I	Online Databases & Conference Proceedings	Tani, Shigemasa, Kei Asayama, Koji Oiwa, et al., "The Effects of Increasing Calcium Channel Blocker Dose vs. Adding a Diuretic to Treatment Regimens for Patients with Uncontrolled Hypertension." <i>Hypertension Research</i> 40, no. 10 (2017): 892–898. https://doi.org/10.1038/hr.2017.56	
Wang 2022	Abstract/ Poster	0	Online Databases & Conference Proceedings	Wang, Li, Zhiyu Liu, Nina Ghamrawi, et al., "The Impact of a Remote Patient Monitoring Program on Blood Pressure Control, Glycemic Control, and Lipids in Patients with Hypertension: A 3.5-year Retrospective Analysis Across 39 Physician Practices." <i>Circulation</i> 146, no. Suppl 1 (2022): A13930-A13930. <u>https://doi.org/10.1161/circ.146.suppl_1.13930</u>	
Zha 2020	Full Text	I	Online Databases & Conference Proceedings	Zha, Peijia, Rubab Qureshi, Sallie Porter, et al., "Utilizing a Mobile Health Intervention to Manage Hypertension in an Underserved Community," <i>Western Journal of Nursing Research</i> 42, no. 3 (2020): 201–209. <u>https://doi.org/10.1177/0193945919847937</u>	

Notes. I = interventional. O = observational. SLR = systematic literature review.

Appendix B-2 – 25 Company-specific Clinical Citations Excluded from SLR

Source	Full Reference	Reason for Exclusion	Details on Reason for Exclusion
AMC Health			
Company data submission	Stamp, Kelly, Nancy A. Allen, Susan Lehrer, et al., "Telehealth Program for Medicaid Patients with Type 2 Diabetes Lowers Hemoglobin A1c," <i>Journal of Managed Care Medicine</i> 15, no. 4 (2012): 3–10.	Publication date	This study was published July 2012, outside of the search parameters (database search is from 2014-2024).
Company data submission	Margolis, Karen L., Stephen E. Asche, Anna R. Bergdall, et al., "Effect of Home Blood Pressure Telemonitoring and Pharmacist Management on Blood Pressure Control: A Cluster Randomized Clinical Trial," JAMA 310, no. 1 (2013): 46–56. https://doi.org/10.1001/jama.2013.6549	Publication date	This study was published July 2013, outside of the search parameters (database search is from 2014-2024).
Company website	Maeng, Daniel D., Alison E. Starr, Janet F. Tomcavage, et al., "Can Telemonitoring Reduce Hospitalization and Cost of Care? A Health Plan's Experience in Managing Patients with Heart Failure." <i>Population Health</i> <i>Management</i> 17, no. 6 (2014): 340–344. <u>https://doi.org/10.1089/pop.2013.0107</u>	Population out of scope	Population out of scope (heart failure patients).
Cadence			
Company website	Cadence. "Cadence Releases First Outcomes Report: Remote Patient Monitoring-Powered Chronic Disease Care Offers the Path Forward." Remote Patient Monitoring, December 14, 2023. <u>https://www.cadence.care/post/cadence-releases-first-outcomes-report-remote-patient-monitoring-powered-chronic-disease-care-offers-the-path-forward</u>	Population and outcomes out of scope	Study is an outcomes report that reports data from a study already included.
Dario Health			
Company website	DarioHealth, "DarioHealth Clinical Research Summary," accessed September 10, 2024. <u>https://wecare.dariohealth.com/clinical-research-</u> <u>summary?_gl=1%2Aoarduh%2A_ga%2AMzQ5ODAyNzMuMTcxMTM5MjI3NA</u> <u>%2A_ga_7CR8DFBD7C%2AMTcxMjE2NDEzNy4xMS4xLjE3MTIxNjUyOTcuMi</u> <u>4wLjA</u>	Outcomes out of scope	No outcomes in scope of SLR.
Company website	DarioHealth, "Integrated Digital Health Delivers Better Results for Cardiometabolic Health Needs," accessed September 10, 2024. <u>https://www.dariohealth.com/wp-</u> <u>content/uploads/2023/06/EB_CardioMetabolic_01202023.pdf</u>	Publication type out of scope	This is a non-peer reviewed executive brief.
Company website	DarioHealth, "ADA2020 860-P Users with Type-2 Diabetes Using a Digital Platform Experienced Sustained Improvements in Blood Glucose Levels." <u>https://wecare.dariohealth.com/hubfs/2023%20Content%20Assets/Research%2</u> <u>0on%20DarioHealth.com/Research_Blood%20Pressure_ADA%20860%202020</u>	Publication date	This abstract was published 2020. Conferences were searched between 2021-2024.

Source	Full Reference	Reason for Exclusion	Details on Reason for Exclusion
	.pdf?_hstc=206263814.3bde964bc53fb1566591ffd6f599f491.1712763895393. 1712763895393.1712763895393.1&_hssc=206263814.4.1712763895394&_ hsfp=1323558929&_gl=1*61sawk*_ga*MTc2NjQ5MTg1My4xNzEyNzYzODg0*_ ga_7CR8DFBD7C*MTcxMjc2Mzg4My4xLjEuMTcxMjc2NDM5MS42MC4wLjA		
Ochsner Digital	Medicine		
Company data submission	Milani, Richard V., Carl J. Lavie, Jonathan K. Wilt, et al., "New Concepts in Hypertension Management: A Population-Based Perspective," <i>Progress in</i> <i>Cardiovascular Diseases</i> 59, no. 3 (2016): 289–294. <u>https://doi.org/10.1016/j.pcad.2016.09.005</u>	Study design out of scope	This is a narrative review.
Company data submission	Tai-Seale, Ming, N. Lance Downing, Veena Goel Jones, et al., "Technology- Enabled Consumer Engagement: Promising Practices at Four Health Care Delivery Organizations," Health Affairs 38, no. 3 (2019): 383–390. https://doi.org/10.1377/hlthaff.2018.05027	Study design out of scope	This is a narrative review.
Company data submission	Milani, Richard V., and Carl J. Lavie, "Health Care 2020: Reengineering Health Care Delivery to Combat Chronic Disease," <i>The American Journal of Medicine</i> 128, no. 4 (2015): 337–343. <u>https://doi.org/10.1016/j.amjmed.2014.10.047</u>	Population or publication type out of scope	This is a narrative review. Population out of scope (chronic diseases in general).
Company data submission	Milani, Richard V., Carl J. Lavie, and Hector O. Ventura, "New Aspects in the Management of Hypertension in the Digital Era," <i>Current Opinion in Cardiology</i> 36, no. 4 (2021): 398–404. <u>https://doi.org/10.1097/HCO.000000000000870</u>	Study design out of scope	A review but this is not an SLR, study design is out of scope.
Company data submission	Commodore-Mensah, Yvonne, Fleetwood Loustalot, Cheryl Dennison Himmelfarb, et al., "Proceedings from a National Heart, Lung, and Blood Institute and the Centers for Disease Control and Prevention Workshop to Control Hypertension," <i>American Journal of Hypertension</i> 35, no. 3 (2022): 232– 243. <u>https://doi.org/10.1093/ajh/hpab182</u>	Intervention out of scope	Article does not discuss digitally connected BP monitors as intervention of focus.
Company data submission	Liu, M., X. Yuan, Y. Zhang, et al., "PCV92 Improving Members Hypertension at Blue Cross Blue Shield of Louisiana: The Effectiveness of Ochsner's Digital Medicine Hypertension (DMH) Program," <i>Value in Health</i> 22, no. Suppl. 2 (2019): S135. <u>https://doi.org/10.1016/j.jval.2019.04.528</u>	Publication date	This abstract was published 2019. Conference searches are from 2021-2024.
Company data submission	Robeznieks, Andis, "Controlling Chronic Disease Corrals Costs and Improves Outcomes," AMA, September 29, 2023. <u>https://www.ama-assn.org/delivering- care/hypertension/controlling-chronic-disease-corrals-costs-and-improves- outcomes</u>	Study design out of scope	Not an article. This is a news article/podcast.
Company data submission	Lee, Simin Gharib, and Naomi DL Fisher, "Innovative Remote Management Solutions for the Control of Hypertension," <i>Hypertension</i> 80, no. 5 (2023): 945– 955. <u>https://doi.org/10.1161/HYPERTENSIONAHA.122.19436</u>	Study design or publication type out of scope	A review but not an SLR, study design is out of scope.

Source	Full Reference	Reason for Exclusion	Details on Reason for Exclusion
Company data submission	Apple, "Empowering People to Live a Healthier Day: Innovation Using Apple Technology to Support Personal Health, Research, and Care," September 2022. https://www.apple.com/newsroom/pdfs/Health-Report-September-2022.pdf	Study design out of scope	Not an article/review and not peer reviewed.
Omada Health			
Company website	Mulcahy, Julie, Lauren S. Beresford, and Anna DeLaRosby. "Defying Stereotypes: Older Adults as High Engagers in App-Based Telehealth Physical Therapy." <i>Topics in Geriatric Rehabilitation</i> 39, no. 4 (2023): 307–311. <u>https://doi.org/10.1097/TGR.00000000000414</u>	Intervention out of scope	Intervention is digital physical therapy application.
Company data submission	Katula, Jeffrey A., Emily V. Dressler, Carol A. Kittel, et al., "Effects of a Digital Diabetes Prevention Program: An RCT," <i>American Journal of Preventive Medicine</i> 62, no. 4 (2022): 567–577. https://doi.org/10.1016/j.amepre.2021.10.023	Population out of scope	Population out of scope (pre-hypertension, elevated blood pressure, pregnant women with gestational hypertension).
Ancillary Company data submission	Whelton, Paul K., Robert M. Carey, Wilbert S. Aronow, et al., "2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APHA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines," <i>Journal of the</i> <i>American College of Cardiology</i> 71, no. 19 (2018): e127–e248. <u>https://doi.org/10.1016/j.jacc.2017.11.006</u>	Publication type out of scope	Hypertension guidelines.
Ancillary Company data submission	Kaka, Bashir, Sonill Sooknunan Maharaj, and Francis Fatoye, "Prevalence of Musculoskeletal Disorders in Patients with Diabetes Mellitus: A Systematic Review and Meta-Analysis," <i>Journal of Back and Musculoskeletal Rehabilitation</i> 32, no. 2 (2019): 223–235. <u>https://doi.org/10.3233/BMR-171086</u>	Publication type out of scope	SLR about Musculoskeletal Disorders in Patients with Diabetes.
Teladoc (Livong	Jo)		
Company data submission	Liu, Susie, Stefanie L. Painter, Roberta James, et al., "630-P: Improved Glucose Control for People with Diabetes Who Enrolled in a Multi-Chronic Condition Remote Monitoring Platform," <i>Diabetes</i> 70, no. Suppl. 1 (2021): 630-P https://doi.org/10.2337/db21-630-P	Outcomes out of scope	The abstract does not include any hypertension specific outcomes.
Company data submission	Bollyky, Jenna, "Exploring Virtual Clinical Trials: Lessons From Clinical Care," in <i>Virtual Clinical Trials: Challenges and Opportunities</i> , eds. Carolyn Shore, Eeshan Khandekar, and Joe Alper (National Academies Press 2019). <u>https://www.ncbi.nlm.nih.gov/books/NBK548973/</u>	Population out of scope; Study design or publication type out of scope	No mention of hypertension. Publication is a book.
Company data submission	James, Roberta, Wei Lu, Jennifer Schneider, and Bimal R. Shah, "Abstract 16986: Reduced Medical Spending Overtime with Use of a Home Blood	Publication date	This abstract was published 2020.

Source	Full Reference	Reason for Exclusion	Details on Reason for Exclusion
	Pressure Monitoring Program," <i>Circulation</i> 147, no. Suppl. 3 (2020): A16986. https://doi.org/10.1161/circ.142.suppl_3.16986		Conferences were searched between 2021-2024.
Company data submission	Xu, Karen, Roberta James, Wei Lu, et al., "More Frequent Remote Home Monitoring Decreases Blood Pressure in an Unselected Population of People with Diabetes," <i>Circulation</i> 140, no. Suppl. 1 (2019): A15430. <u>https://www.ahajournals.org/doi/abs/10.1161/circ.140.suppl 1.15430</u>	Publication date	This abstract was published 2019. Conferences were searched between 2021-2024.
Company data submission	Wang, Yajuan, Scott Brunning, Anmol Madan, et al., "Evaluating Physical Activity Around Enrollment in a Chronic Disease Remote Monitoring Programs to Drive Behavior Change," <i>Annals of Behavioral Medicine</i> 55, no. Suppl. 1 (2021): S192. <u>https://academic.oup.com/abm/article- pdf/55/Supplement_1/S1/37014620/kaab020.pdf</u>	Outcomes out of scope	No outcomes in scope of SLR.

Notes. SLR = systematic literature review.

Appendix B-3 – 12 Company-specific Citations with Healthcare Resource Utilization Claims

Source	Full Reference		
AMC Health			
Online Databases & Conference Proceedings	Margolis, Karen L., Steven P. Dehmer, JoAnn Sperl-Hillen, et al., "Cardiovascular Events and Costs with Home Blood Pressure Telemonitoring and Pharmacist Management for Uncontrolled Hypertension," <i>Hypertension</i> 76, no. 4 (2020): 1097–1103. https://doi.org/10.1161/HYPERTENSIONAHA.120.15492.		
Cadence			
Company data submission	Feldman David I., "A Nationwide Remote Intervention Hypertension Program: Can Remote Patient Monitoring and a Multi-Disciplinary Team of Clinicans Improve Blood Pressure Control?" Cadence. Presented at American Heart Association 2023. https://connectwithcare.org/wp-content/uploads/2024/04/2023-Nov-AHA-Presentation.pdf		
Hello Heart			
Online Databases & Conference Proceedings	Validation Institute, "2023 Validation Report: Hello Heart," accessed September 2024. <u>https://assets-global.website-files.com/64cad0eb87ec6044a0027bc0/654a9221c7154430207a1efb_Hello_Heart_Savings_2023.pdf</u>		
Ochsner Digital Medicine			
Company data submission	Ochsner Digital Medicine. "Ochsner Digital Medicine Report." April 15, 2021. Accessed September 10, 2024.		
Company data submission	Validation Institute, "Ochsner Health: Validated Program Report," accessed September 10, 2024. https://validationinstitute.com/validated-provider/ochsner-health/		
Omada Health			
Company data submission	Noble, Madison, Fang Chen, Sarah Linke, et al., "Modeling the Economic Value of Cardio-Metabolic Virtual-First Care Programs," <i>American Journal of Managed Care</i> 30 no. SP 6 (2024): SP430–SP436. <u>https://doi.org/10.37765/ajmc.2024.89549</u>		
Teladoc (Livongo)			
Company data submission	James, Roberta, Wei Lu, Jennifer Schneider, and Bimal R. Shah, "Abstract 16986: Reduced Medical Spending Overtime with Use of a Home Blood Pressure Monitoring Program," <i>Circulation</i> 147, no. Suppl. 3 (2020): A16986. https://doi.org/10.1161/circ.142.suppl_3.16986		
Online Databases & Conference Proceedings	Teladoc Health, "Harris Health System Doubles Down on Employee Health," accessed September 10, 2024. https://assets.ctfassets.net/l3v9j0ltz3yi/6mAAFE0Msbl8xoU5dO5aSO/07dc7e3fff672b2b9b33f298c480806c/Livongo Harris Health Ca se Study.pdf		
Online Databases & Conference Proceedings	Livongo, "Return on Investment Model for Hypertension, 2019," accessed September 2024. <u>https://drive.google.com/file/d/1hMpwg-FXFwuQAeYb75xa0Sh2RKLCsKgY/view</u>		
VitalSight (Omron Healtho	care)		

Source	Full Reference
Online Databases & Conference Proceedings	Petito, Lucia C., Lauren Anthony, Yaw Peprah, et al., "Blood Pressure Outcomes at 12 Months in Primary Care Patients Prescribed Remote Physiological Monitoring for Hypertension: A Prospective Cohort Study," <i>Journal of Human Hypertension</i> 37, no. 12 (2023): 1091–1097. <u>https://doi.org/10.1038/s41371-023-00850-w</u>
Online Databases & Conference Proceedings	Petito, Lucia C., Lauren Anthony, Yaw Amofa Peprah, et al., "Remote Physiologic Monitoring for Hypertension in Primary Care: A Prospective Pragmatic Pilot Study in Electronic Health Records Using Propensity Score Matching," <i>JAMIA Open</i> 6, no. 1 (2023): ooac111. <u>https://doi.org/10.1093/jamiaopen/ooac111</u>
Online Databases & Conference Proceedings	Persell, Stephen D., Lucia C. Petito, Lauren Anthony, et al., "Prospective Cohort Study of Remote Patient Monitoring with and Without Care Coordination for Hypertension in Primary Care," <i>Applied Clinical Informatics</i> 14, no. 3 (2023): 428–438. <u>https://doi.org/10.1055/a-2057-7277</u>

Appendix C – Risk of Bias Ratings for SLR Studies

Appendix C-1: Risk of Bias Ratings using the Cochrane Collaboration Risk of Bias in Randomized Trials Version 2 (ROB2)

Study Articles	Overall rating	Random sequence generation	Deviation from intended intervention bias	Missing outcome data	Outcomes measurement bias	Selective reporting
AMC Health						
Margolis 2015 ^a ; Margolis 2018; Asche 2016	Moderate	Low	Low	Some	Low	Low
Margolis 2022	Moderate	Low	Low	Some	Low	Low
Lark		_				
Persell 2020	Moderate	Low	Low	Some	Low	Low
Other						
Abel 2022*; Abel 2023	Moderate	Low	Some	Low	Low	Low
Buis 2024	High	Some	Low	High	Low	Low
Chandler 2019	Low	Low	Low	Low	Low	Low
Gupta 2023	Low	Low	Low	Low	Low	Low
Kim 2014	High	Some	High	Some	Low	Low
Kim 2016	Moderate	Some	Low	Some	Low	Some
Maciejewski 2014	Low	Low	Low	Low	Low	Low
Naqvi 2022	High	Some	Low	High	Low	Low
Pletcher 2022	Low	Low	Low	Low	Low	Low
Tani 2017	High	Some	High	High	Low	Low
Zha 2020	High	Low	Low	Low	High	Low

Notes. See Appendix A for detailed rating information. ^aStudy article used to assess risk of bias.

Study Articles	Overall rating	Group Selection	Group Comparability	Outcome/Exposure Assessment				
Cadence								
Feldman 2023	N/A	N/A	N/A	N/A				
Hello Heart								
Gazit 2021	High	+++	N/A	++				
Kaplan 2017	High	+	N/A	++				
Paz 2024	High	+++	N/A	++				
Roberts 2022	N/A	N/A	N/A	N/A				
Lark								
Branch 2022	Low	+++	+	++				
Graham 2021	Moderate	++	+	+++				
Ochsner Digital Medicine								
Milani 2017	Low	++++	++	+				
Milani 2020	High	+++	N/A	++				
Milani 2022	High	+++	N/A	+++				
Omada Health								
Wilson-Anumudu 2022	High	++	N/A	+++				
Wu 2023	High	+++	N/A	+++				
Teladoc (Livongo)								
Dzubur 2021	N/A	N/A	N/A	N/A				
Dzubur 2023	Moderate	++	+	++				
Shah 2022	High	+++	N/A	+++				
Vitalsight (Omron Healthcare)								
Persell 2023 ^a ; Persell 2022b	Low	++++	+	+++				
Petito 2023aª; Persell 2024	Low	++++	+	+++				
Petito 2023b ^a ; Persell 2021	Low	++++	+	+++				

Appendix C-2: Risk of Bias Ratings using the Newcastle-Ottawa Scale (NOS)
Study Articles	Overall rating	Group Selection	Group Comparability	Outcome/Exposure Assessment
Other				
Angellotti 2019	High	+++	N/A	+++
Blood 2023	Low	++++	+	++
Buis 2020	Low	+++	+	+++
Ciemins 2018	Low	++++	+	+++
Clark 2021	Low	++++	+	+++
Durr 2023	Low	++++	+	++
Fisher 2019	High	++	N/A	+++
Frazier 2023	High	+	N/A	+++
Haskell 2022	High	+++	N/A	+
Ishak 2024	High	++	N/A	++
Kim 2023	High	+++	N/A	++
Lee 2023	High	+++	N/A	++
Lv 2017	High	+++	N/A	+++
Makutonin 2023	High	++++	+	+
Mallow 2018	High	++	N/A	+++
Mao 2017	Low	+++	++	++
Park 2021	High	+++	N/A	+++
Shane-McWhorter 2014	High	+++	N/A	+++
Taber 2018	Low	++++	++	+++

Notes. N/A = not applicable. More + indicates better evidence quality (lower risk of bias). See Appendix A for detailed rating information. ^aStudy article used to assess risk of bias.

Key:

MCID threshold met

-

_

Company	Study Articles	Study Design	Analysis Population	Risk of Bias	Timepoint	n	Study Arm	BASELINE SBP, Mean (SD)	FOLLOW-UP SBP, Mean (SD)	Within Group Change from Baseline, Mean [95% Cl]	Between Group Difference in Change from Baseline, Mean	Between Group Difference at Follow-up, Mean
Blood Press	sure Monitoring Ap	proach	,									
					3 Months	288	DHT	142.7 (19.5)	134.2 (17.9)	-8.5	-7.3	-5.4***
					5 Monuis	1,152	Usual Care	141.2 (18.7)	140 (18.9)	-1.2	reference	reference
					6 Montho	288	DHT	142.7 (19.5)	132.6 (18.0)	-10.1	-6.4	-4.4***
Petito				1	6 Months	1,152	Usual Care	141.2 (18.7)	137.5 (18.6)	-3.7	reference	reference
	Petito 2023a	0	NR	LOW	O Marstha	288	DHT	142.7 (19.5)	133.2 (18.5)	-9.5	-4.6	-2.6*
					9 Months	1,152	Usual Care	141.2 (18.7)	136.3 (18.0)	-4.9	reference	reference
(Omron Healthcare)					40 Mantha	288	DHT	142.7 (19.5)	132.3 (17.9)	-10.4	-5.7	-3.8**
					12 Months	1,152	Usual Care	141.2 (18.7)	136.5 (18.4)	-4.7	reference	reference
		_			0.14	207	DHT	148.5 (NR)	145.3 (16.6)	-3.2	-1.9**	-1.8
F	Petito 2023b	0	NK	LOW	6 Months	828	Usual Care	148.4 (NR)	147.1 (15.6)	-1.3	reference	reference
	Damall 2022	0	6	Low 2 Months	2 Manth	600	DHT	153 (11.2)	148.4 (NR)	-4.6	NR	-2
	Persell 2023	0	U	LOW	3 Months	1,617	Usual Care	152.1 (11.9)	149.5 (NR)	-2.6	NR	reference

Appendix D – Key Comparator Studies with SBP Outcomes

Company	Study Articles	Study Design	Analysis Population	Risk of Bias	Timepoint	n	Study Arm	BASELINE SBP, Mean (SD)	FOLLOW-UP SBP, Mean (SD)	Within Group Change from Baseline, Mean [95% Cl]	Between Group Difference in Change from Baseline, Mean	Between Group Difference at Follow-up, Mean
Blood Bross	uro Monitoring Apr	roach (d	continued)									
BIOOU FIESS			,ontinueu)									
VitalSight (Omron	Persell 2023	0	C	Low	6 Months	600	DHT	153 (11.2)	144.9 (NR)	-8.1	NR	-2.6
Healthcare)					0	1,617	Usual Care	152.1 (11.9)	146.6 (NR)	-5.5	NR	reference
N1/A	Malutaria 2022	0		Llink	2 Mantha	13	DHT	NR	NR	-13.5 [-28.2, 1.1]	-9.8	NR
N/A	Makutonin 2023	0		High	3 Months	299	Usual Care	NR	NR	-3.7 [-6.3, -1.0]	reference	NR
Medication I	Management Appro	ach										
					O M antha	228	DHT	148.2 (12.9)	126.7 (NR)	-21.5 [-23.9, -10.1]	-10.7***	NR
	Manualia 0040	DOT		Mandamata	6 Months	222	Usual Care	147.7 (13.2)	136.9 (NR)	-10.8 [13.3, -8.3]	reference	NR
	Margolis 2018	RCI		Moderate	10 Mantha	228	DHT	148.2 (12.9)	125.7 (NR)	-22.5 [-25.1, -19.9]	-9.7***	NR
AMC Health					12 Months	222	Usual Care	147.7 (13.2)	134.8 (NR)	-12.9 [-15.5, -10.2]	reference	NR
	Marmalia 2022	DOT		Madanata	10 Martha	1,648	DHT	157.5 (NR)	138.8 (NR)	-18.7 [-20.2, -17.3]	-0.76	NR
	Margolis 2022	RCI	NK	Moderale	12 Months	1,423	Usual Care	157.1 (NR)	139.2 (NR)	-18 [-19.4, -16.5]	reference	NR
Ochsner	Milani 2017	0	ND	Low	3 Months	156	DHT	147 (19)	133 (12)	-14***	-10	NR
Medicine				LOW	5 WORUS	400	Usual Care	147 (5)	143 (14)	-4***	reference	NR

Company	Study Articles	Study Design	Analysis Population	Risk of Bias	Timepoint	n	Study Arm	BASELINE SBP, Mean (SD)	FOLLOW-UP SBP, Mean (SD)	Within Group Change from Baseline, Mean [95% Cl]	Between Group Difference in Change from Baseline, Mean	Between Group Difference at Follow-up, Mean
Medication	Management Appro	ach (cor	ntinued)									
					6 Montho	3,370	DHT	144.4 (17.1)	135.7 (17.4)	-8.7 [NR]	-8.2***	-4.2
N1/A	Blood 2022	0		Low	0 MONUNS	301	Usual Care	140.4 (16.7)	139.9 (18.6)	-0.5 [NR]	reference	reference
N/A	BIOOQ 2023	0	INK	LOW	12 Months	3,370	DHT	144.4 (17.1)	134.7 (17.6)	-9.7 [NR]	-9.9***	-5.9
					12 Months	301	Usual Care	140.4 (16.7)	140.6 (27.5)	0.2 [NR]	reference	reference
N/A	Clark 2021	0	6	Low	6 Montho	118	DHT	141.6 (14.1)	127.8 (11.9)	-14.1*** [-16.8, -11.4]	-13.2	-13.7
N/A		0	C	LOW	6 Months	NR	Usual Care	142.4 (11.8)	141.5 (15.6)	-0.9 [-3.2, 1.4]	reference	NR
					6 Months	149	DHT	141.62°	137.20ª	-4.42	-1.41	-1.41
N1/A	Magiciowski 2014	ВСТ		Low	0 Monuis	147	Usual Care	141.62ª	138.62ª	-3.00	reference	reference
N/A	Maciejewski 2014	RCI	NR	LOW	10 Martha	149	DHT	141.62ª	135.18°	-6.44	-1.41	-1.4
					12 Months	147	Usual Care	141.62ª	136.59°	-5.03	reference	reference
Behavior Ch	nange Approach											
	75- 2020	DOT		Llink	2 Manth	12	DHT	145.77 (5.10)	140.55 (5.46)	-5.22	-2.17	-2.07
N/A	2118 2020	RUI	INK	High	3 IVIONTINS	13	Usual Care	145.67 (3.68)	142.62 (5.69)	-3.05	reference	reference

Company	Study Articles	Study Design	Analysis Population	Risk of Bias	Timepoint	n	Study Arm	BASELINE SBP, Mean (SD)	FOLLOW-UP SBP, Mean (SD)	Within Group Change from Baseline, Mean [95% Cl]	Between Group Difference in Change from Baseline, Mean	Between Group Difference at Follow-up, Mean
Behavior C	hange Approach (co	ontinued										
		DOT		Link	C. Martha	12	DHT	145.77 (5.10)	137.38 (4.86)	-8.39**	-3.6	-3.5
N/A	Zha 2020	RCI	NR	High	6 Months	13	Usual Care	145.67 (3.68)	140.88 (5.01)	-4.79	reference	reference
						83	DHT	153.92 (NR)	131.42	-22.5*** [NR]	1.62	NR
N/A	Buis 2024	RCT	С	High	12 Months	79	Usual Care	153.96 (NR)	129.84	-24.12*** [NR]	reference	NR
		DOT				1,051	DHT	157 (11)	146.2	-10.8 [NR]	-0.19	NR
N/A	Pletcher 2022	RCT	NR	Low	6 Months	1,050	Usual Care	158 (12)	147.4	-10.6 [NR]	reference	NR
						148	DHT	141.62ª	138.0°	-3.59	-0.59	-0.57
		DOT			6 Months	147	Usual Care	141.62ª	138.62ª	-3.00	reference	reference
N/A	Maciejewski 2014	RCI	NR	Low		148	DHT	141.62ª	136.26ª	-5.36	-0.33	-0.34
					12 Months	147	Usual Care	141.62ª	136.59ª	-5.03	reference	reference
51/4	King 0044	DOT		1 Back	0 Martha	184	DHT	141 (17)	132 (15)	-9.1 [NR]	-7.1	-6.0***
N/A	KIM 2014	RCI	C	High	6 Months	185	Usual Care	140 (21)	138 (21)	-2	reference	reference

											Between Group	Between
										Within Group	Difference in	Group
								BASELINE	FOLLOW-UP	Change from	Change from	Difference at
		Study	Analysis	Risk of			Study	SBP,	SBP,	Baseline, Mean	Baseline,	Follow-up,
Company	Study Articles	Design	Population	Bias	Timepoint	n	Arm	Mean (SD)	Mean (SD)	[95% CI]	Mean	Mean

Behavi	ehavior Change Approach (continued)												
	Kim 2014	DOT	6	High	12 Months	184	DHT	141 (17)	131 (15)	-10	-7	-6.1**	
N/A Ki	KIII 2014	RCI	C	High		185	Usual Care	140 (21)	137 (22)	-3	reference	reference	
N/A A	Abol 2023	I 2023 RCT	ND	Modorato	Q Months	45	DHT	140 (NR)ª	124 (NR)ª	-16	-2	-1	
				woderate	9 WORLIS	45	Usual Care	139 (NR)ª	125 (NR)ª	-14	reference	reference	

Notes. C = completers. CI = confidence interval. DHT = digital health technology. ITT = intent to treat. MCID = minimally important clinical differences. N/A = not applicable. NR = not reported. O = observational. RCT = randomized control trial. SBP = systolic blood pressure. SD = standard deviation. Italic values are calculated values from other data provided in article (and do not have Standard Deviations or Confidence Intervals). aValues were extracted from a figure. *p<0.05. **p<0.01. ***p<0.001

Company	Study Articles	Study Design	Analysis Population	Risk of Bias	Timepoint	n	Study Arm	BASELINE BPC, %	FOLLOW-UP BPC, %	Within Group Change from Baseline, %	Between Group Difference in Change from Baseline, %	Between Group Difference at Follow-up, %
Blood Press	ure Monitoring	Approach	ì		-	-	-			-		
					3 Months	288	DHT	35.4%	72.2%	36.8%	25%	21.2%
					5 Monuis	1,152	Usual Care	39.2%	51%	11.8%	reference	reference
					6 Months	288	DHT	35.4%	72.9%	37.5%	20.1%	16.3%
	Petito 2023a	0	NR	Low		1,152	Usual Care	39.2%	56.6%	17.4%	reference	reference
VitalSight	sight on hcare)	Ŭ		LOW	9 Months	288	DHT	35.4%	70.1%	34.7%	15.4%	11.6%
(Omron Healthcare)						1,152	Usual Care	39.2%	58.5%	19.3%	reference	reference
					12 Months	288	DHT	35.4%	71.5%	36.1%	17.2%	13.4%
					12 Months	1,152	Usual Care	39.2%	58.1%	18.9%	reference	reference
	Petito 2023b	0	NR	Low	6 Months	207	DHT	0%	31.4%	31.4%	8.6%	8.6%**
	1 6110 20200	0		LOW	0 Montais	828	Usual Care	0%	22.8%	22.8%	reference	reference
					3 Months	600	DHT	NR	18.8%	NR	NR	2.2%
VitalSight	Persell 2023	0	C	LOW		1,617	Usual Care	NR	16.6%	NR	NR	reference
Healthcare)				LOW	6 Months	600	DHT	NR	30.7%	NR	NR	3.6%
					6 Months 1	1,617	Usual Care	NR	27.1%	NR	NR	reference

Appendix E – Key Comparator Studies with BPC Outcomes

Company	Study Articles	Study Design	Analysis Population	Risk of Bias	Timepoint	n	Study Arm	BASELINE BPC, %	FOLLOW-UP BPC, %	Within Group Change from Baseline, %	Between Group Difference in Change from Baseline, %	Between Group Difference at Follow-up, %	
Blood Press	ure Monitoring	Approach	n (continued)										ſ
NI/A	Ciemins 2018	0	NR	Low	9 Months	131	DHT	42%	67%	25%	17%	0%	
				LOW	9 Monuis	353	Usual Care	59%	67%	8%	reference	reference	
NI/A	Makutonin	0	177	High	3 Months	13	DHT	NR	46.2%	NR	NR	14.8%	
	2023	0		riigii	5 Montins	299	Usual Care	NR	31.4%	NR	NR	reference	
Medication M	Management Ap	proach											
AMC Health	Asche 2016	RCT	C	Moderate	6 Months	177	DHT	NR	79%	NR	NR	NR	
Aivio Ficalui			0	Moderate	0 Months	174	Usual Care	NR	50%	NR	NR	NR	
Ochsner Digital	Milani 2017	0	NR	Low	3 Months	156	DHT	NR	71%	NR	NR	40%***	
Medicine				Low		400	Usual Care	NR	31%	NR	NR	reference	
					6 Months	149	DHT	31.1%ª	44.5%ª	13.4	7.2%	7.1%	
NI/A	Maciejewski	RCT	NR	Low		147	Usual Care	31.1%ª	37.2%ª	6.1	reference	reference	
	2014	Rot		LOW	12 Months	149	DHT	31.1%ª	51.0%ª	19.9	8.9%	8.8%	
					12 Months	147	Usual Care	31.1%ª	42.1%ª	11.0	reference	reference	
Behavior Ch	ange Approach	1											
N/A	Pletcher 2022	RCT	NR	Low	6 Months	1,051	DHT	NR	32%	NR	NR	3%**	
				LOW		1,050	Usual Care	NR	29%	NR	NR	reference	

Company	Study Articles	Study Design	Analysis Population	Risk of Bias	Timepoint	n	Study Arm	BASELINE BPC, %	FOLLOW-UP BPC, %	Within Group Change from Baseline, %	Between Group Difference in Change from Baseline, %	Between Group Difference at Follow-up, %
Behavior Ch	ange Approacl	h (continu	ed)									
					6 Months	148	DHT	31.1%ª	41.1%ª	10.0	3.8%	3.8%
NI/A	Maciejewski 2014 RCT NR	ND	Low	6 Months	147	Usual Care	31.1%ª	46.1%ª	6.1	reference	reference	
N/A Maciejewski 2014	2014	RCT	INIX	LOW	12 Months	148	DHT	31.1%ª	42.1%ª	15.0	4.0%	4.0%
						147	Usual Care	31.1%ª	42.1%ª	11.0	reference	reference
					6 Monthe	184	DHT	49.5%	58.5%	9%	9.8%	16.1%**
NI/A	Kim 2014	POT	6	High	6 Months	185	Usual Care	43.2%	42.4%	-0.8%	reference	reference
N/A Ki	Killi 2014	RCT		riigii	12 Months	184	DHT	49.5%	67.9%	18.4%	9.1%	15.4%**
					12 Months	185	Usual Care	43.2%	52.5%	9.3%	reference	reference

Notes. BPC = blood pressure control. C = completers. DHT = digital health technology. ITT = intent to treat. N/A = not applicable. NR = not reported. O = observational. RCT = randomized control trial. Italic values are calculated values from other data provided in article. ^aValues were extracted from a figure. *p<0.05. **p<0.01. ***p<0.001.

Appendix F – All Studies with SBP Outcomes

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% Cl), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
Comparative -	RCT									
AMC Health	Margolis 2015	DHT + RPM	6 Months	206	Some	148.3 (12.6)	126.7	-21.6 (NR)	-11.3, <0.001	NR
AMC Health	Margolis 2015	Usual Care	6 Months	197	Some	146.8 (12.3)	136.5	-10.3 (NR)	reference	NR
AMC Health	Margolis 2018	DHT + RPM	6 Months	228	Some	148.2 (12.9)	126.7 (NR)	-21.5 (-23.9, -19.1), NR	-10.7, <0.001	NR
AMC Health	Margolis 2018	DHT + RPM	12 Months	228	Some	148.2 (12.9)	125.7 (NR)	-22.5 (-25.1, -19.9), NR	-9.7, <0.001	NR
AMC Health	Margolis 2018	DHT + RPM	18 Months	228	Some	148.2 (12.9)	126.9 (NR)	-21.3 (-24.2, -18.4), NR	-6.6, 0.004	NR
AMC Health	Margolis 2018	DHT + RPM	54 Months	228	Some	148.2 (12.9)	130.6 (NR)	-17.6 (-20.3, -15.0), NR	-2.5, 0.18	NR
AMC Health	Margolis 2018	Usual Care	6 Months	222	Some	147.7 (13.2)	136.9 (NR)	-10.8 (-13.3, -8.3), NR	reference	NR
AMC Health	Margolis 2018	Usual Care	12 Months	222	Some	147.7 (13.2)	134.8 (NR)	-12.9 (-15.5, -10.2), NR	reference	NR
AMC Health	Margolis 2018	Usual Care	18 Months	222	Some	147.7 (13.2)	133.0 (NR)	-14.7 (-17.6, -11.8), NR	reference	NR
AMC Health	Margolis 2018	Usual Care	54 Months	222	Some	147.7 (13.2)	132.6 (NR)	-15.1 (-17.7, -12.5), NR	reference	NR
AMC Health	Asche 2016	DHT + RPM	6 Months	177	Some	149.7 (11.6)	NR	NR	NR	NR
AMC Health	Asche 2016	Usual Care	6 Months	174	Some	148.0 (11.9)	NR	NR	NR	NR
AMC Health	Beran 2018	DHT + RPM	12 Months	224	Some	143.2 (NR)	122.4 (NR)	-20.8	N/A	N/A
AMC Health	Margolis 2022	DHT + RPM	12 Months	1648	Some	157.5 (NR)	138.8 (NR)	-18.7 (-20.2, -17.2), NR	-0.76, 0.45	NR
AMC Health	Margolis 2022	Usual Care	12 Months	1423	Some	157.1 (NR)	139.2 (NR)	-18.0 (-19.4, -16.5), NR	reference	NR

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% CI), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
Lark	Persell 2020	DHT + RPM	6 Months	144	Some	140.6 (12.2)	132.3 (15.0)	-8.3 (NR)	-1.5	-2.0, 0.16
Lark	Persell 2020	DHT only	6 Months	152	Some	141.8 (13.4)	135.0 (13.9)	-6.8 (NR)	reference	reference
Lark	Persell 2020	DHT + RPM	6 Months	53	Some	142.5 (10.2)	134.4 (13.3)	-8.1	-3.1	-3.6, NR
Lark	Persell 2020	DHT only	6 Months	62	Some	143.5 (11.9)	138.5 (12.7)	-5	reference	reference
Lark	Persell 2020	DHT + RPM	6 Months	91	Some	139.5 (13.1)	131.1 (15.8)	-8.4	-0.3	-0.8, NR
Lark	Persell 2020	DHT only	6 Months	90	Some	140.6 (14.2)	132.5 (14.3)	-8.1	reference	reference
Lark	Persell 2020	DHT + RPM	6 Months	56	Some	140.6 (13.5)	134.0 (14.6)	-6.6	2.2	1.2, NR
Lark	Persell 2020	DHT only	6 Months	46	Some	142.8 (15.2)	134.0 (14.1)	-8.8	reference	reference
Columbia University Irving Medical Center	Naqvi 2022	DHT + RPM	12 Weeks	25	High	139.7 (18.9)	124.1	-15.6 (NR), <0.01	NR	-18.4, 0.01
Columbia University Irving Medical Center	Naqvi 2022	Usual Care	12 Weeks	25	High	142.0 (18.9)	144.8	2.8, NR	NR	reference
HealthComp	Kim 2016	DHT + RPM	6 Months	52	Some	136.1 (15.2)	133.4 (12.9)	-2.7, 0.28	3	-6.8
HealthComp	Kim 2016	DHT only	6 Months	43	Some	145.9 (19.5)	140.2 (18.4)	<mark>-5.7</mark> , 0.06	reference	reference
iHealth	Zha 2020	DHT + RPM	3 Months	12	High	145.77 (5.10)	140.55 (5.46)	-5.22	-2.17	-2.07
iHealth	Zha 2020	DHT + RPM	6 Months	12	High	145.77 (5.10)	137.38 (4.86)	- <mark>8.39</mark> , 0.01	-3.6	-3.5
iHealth	Zha 2020	Usual Care	3 Months	13	High	145.67 (3.68)	142.62 (5.69)	-3.05	reference	reference
iHealth	Zha 2020	Usual Care	6 Months	13	High	145.67 (3.68)	140.88 (5.01)	-4 .79, 0.17	reference	reference

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% Cl), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
VitalSight (Omron Healthcare)	Buis 2024	DHT only	1 Year	83	High	153.92 (NR)	131.42	-22.50 (NR), <0.001	1.62 , 0.99	NR
VitalSight (Omron Healthcare)	Buis 2024	Usual Care	1 Year	79	High	153.96 (NR)	129.84	-24.12 (NR), <0.001	reference	NR
VitalSight (Omron Healthcare)	Pletcher 2022	DHT only	6 Months	1051	Low	157 (11)	146.2	-10.8 (NR), NR	-0.19, 0.81	NR
VitalSight (Omron Healthcare)	Pletcher 2022	Usual Care	6 Months	1050	Low	158 (12)	147.4	-10.6 (NR), NR	reference	NR
Qardio	Gupta 2023	DHT + RPM	12 Weeks	17	Low	143.9 (20.7)	130 (NR)	- <mark>13.9</mark> , 0.008	0.1	-7
Qardio	Gupta 2023	DHT only	12 Weeks	14	Low	141.0 (19.6)	137 (NR)	- <mark>4</mark> , 0.448	reference	reference
N/A	Maciejewski 2014	Usual Care	6 Months	147	Low	141.62ª	138.62ª	-3.00	reference	reference, NR
N/A	Maciejewski 2014	Usual Care	12 Months	147	Low	141.62ª	136.59ª	-5.03	reference	reference, NR
N/A	Maciejewski 2014	Usual Care	18 Months	147	Low	141.62ª	135.79ª	-5.83	reference	reference, NR
N/A	Maciejewski 2014	Usual Care	24 Months	147	Low	141.62ª	135.97ª	-5.65	reference	reference, NR
N/A	Maciejewski 2014	Usual Care	30 Months	147	Low	141.62ª	137.20ª	-4.42	reference	reference, NR
N/A	Maciejewski 2014	Usual Care	36 Months	147	Low	141.62ª	139.38ª	-2.24	reference	reference, NR
N/A	Maciejewski 2014	DHT + RPM (Combined arms)	6 Months	147	Low	141.62ª	136.59ª	-5.03	-2.03	-2.02, NR
N/A	Maciejewski 2014	DHT + RPM (Combined arms)	12 Months	147	Low	141.62ª	134.04ª	-7.57	-2.54	-2.57, NR
N/A	Maciejewski 2014	DHT + RPM (Combined arms)	18 Months	147	Low	141.62ª	134.12ª	-7.50	-1.67	-1.65, NR

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% Cl), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
N/A	Maciejewski 2014	DHT + RPM (Combined arms)	24 Months	147	Low	141.62ª	134.98ª	-6.64	-0.98	-0.98, NR
N/A	Maciejewski 2014	DHT + RPM (Combined arms)	30 Months	147	Low	141.62ª	134.93ª	-6.69	-2.27	-2.27, NR
N/A	Maciejewski 2014	DHT + RPM (Combined arms)	36 Months	147	Low	141.62ª	133.87ª	-7.75	-5.51	-5.51, NR
N/A	Maciejewski 2014	DHT + RPM (Behavioral mngmt)	6 Months	148	Low	141.62ª	138.03ª	-3.59	-0.59	-0.57, NR
N/A	Maciejewski 2014	DHT + RPM (Behavioral mngmt)	12 Months	148	Low	141.62ª	136.26ª	-5.36	-0.33	-0.34, NR
N/A	Maciejewski 2014	DHT + RPM (Behavioral mngmt)	18 Months	148	Low	141.62ª	136.50ª	-5.12	0.71	0.70, NR
N/A	Maciejewski 2014	DHT + RPM (Behavioral mngmt)	24 Months	148	Low	141.62ª	137.00ª	-4.61	1.04	1.03, NR
N/A	Maciejewski 2014	DHT + RPM (Behavioral mngmt)	30 Months	148	Low	141.62ª	136.31ª	-5.31	-0.89	-0.86, NR
N/A	Maciejewski 2014	DHT + RPM (Behavioral mngmt)	36 Months	148	Low	141.62ª	134.40ª	-7.22	-4.98	-4.97, NR
N/A	Maciejewski 2014	DHT + RPM (Medication mngmt)	6 Months	149	Low	141.62ª	137.20ª	-4.42	-1.41	-1.41, NR
N/A	Maciejewski 2014	DHT + RPM (Medication mngmt)	12 Months	149	Low	141.62ª	135.18ª	-6.44	-1.41	-1.40, NR
N/A	Maciejewski 2014	DHT + RPM (Medication mngmt)	18 Months	149	Low	141.62ª	135.75ª	-5.87	-0.04	0.02, NR
N/A	Maciejewski 2014	DHT + RPM (Medication mngmt)	24 Months	149	Low	141.62ª	137.00ª	-4.62	1.04	1.03, NR

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% Cl), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
N/A	Maciejewski 2014	DHT + RPM (Medication mngmt)	30 Months	149	Low	141.62ª	137.38ª	-4.24	0.18	-0.19, NR
N/A	Maciejewski 2014	DHT + RPM (Medication mngmt)	36 Months	149	Low	141.62ª	135.78ª	-5.84	-3.60	-3.64, NR
N/A	Maciejewski 2014	Usual Care (Adequate BPC at baseline)	18 Months	NR⁰	Low	NR	NR	NR	NR	NR
N/A	Maciejewski 2014	DHT + RPM (Combined arms, adequate BPC at baseline)	18 Months	NR⁰	Low	NR	NR	NR	NR	NR
N/A	Maciejewski 2014	DHT + RPM (Adequate BPC at baseline, medication mngmt)	18 Months	NR⁰	Low	NR	NR	NR	NR	NR
N/A	Maciejewski 2014	DHT + RPM (Adequate BPC at baseline, behavioral mngmt)	18 Months	NR°	Low	NR	NR	NR	NR	NR
N/A	Maciejewski 2014	Usual Care (Poor BPC at baseline)	6 Months	NR⁴	Low	145.81ª	142.95ª	-2.86	reference	reference
N/A	Maciejewski 2014	Usual Care (Poor BPC at baseline)	12 Months	NR⁴	Low	145.81ª	141.18ª	-4.63	reference	reference
N/A	Maciejewski 2014	Usual Care (Poor BPC at baseline)	18 Months	NR₫	Low	145.81ª	140.53ª	-5.28	reference	reference
N/A	Maciejewski 2014	Usual Care (Poor BPC at baseline)	24 Months	NR⁴	Low	145.81ª	140.60ª	-5.21	reference	reference
N/A	Maciejewski 2014	Usual Care (Poor BPC at baseline)	30 Months	NR₫	Low	145.81ª	140.95ª	-4.86	reference	reference
N/A	Maciejewski 2014	Usual Care (Poor BPC at baseline)	36 Months	NR⁴	Low	145.81ª	141.66ª	-4.15	reference	reference

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% Cl), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
N/A	Maciejewski 2014	DHT + RPM (Combined arms, poor BPC at baseline)	6 Months	NR₫	Low	145.81ª	139.11ª	-6.70	-3.84	-3.81, NR
N/A	Maciejewski 2014	DHT + RPM (Combined arms, poor BPC at baseline)	12 Months	NR₫	Low	145.81ª	135.57ª	-10.24	-5.61	-5.57, NR
N/A	Maciejewski 2014	DHT + RPM (Combined arms, poor BPC at baseline)	18 Months	NR₫	Low	145.81ª	135.24ª	-10.57	-5.29	-5.29, <0.05
N/A	Maciejewski 2014	DHT + RPM (Combined arms, poor BPC at baseline)	24 Months	NR₫	Low	145.81ª	135.79ª	-10.02	-4.81	-4.95, <0.05
N/A	Maciejewski 2014	DHT + RPM (Combined arms, poor BPC at baseline)	30 Months	NR₫	Low	145.81ª	134.74ª	-11.07	-6.21	-6.52, <0.05
N/A	Maciejewski 2014	DHT + RPM (Combined arms, poor BPC at baseline)	36 Months	NRd	Low	145.81ª	132.12ª	-13.69	-9.54	-10.02, <0.05
N/A	Maciejewski 2014	DHT + RPM (Poor BPC at baseline, behavioral mngmt)	6 Months	NR₫	Low	145.81ª	140.75ª	-5.06	-2.20	-2.14, NR
N/A	Maciejewski 2014	DHT + RPM (Poor BPC at baseline, behavioral mngmt)	12 Months	NR⁴	Low	145.81ª	138.37ª	-7.44	-2.81	-2.74, NR
N/A	Maciejewski 2014	DHT + RPM (Poor BPC at baseline, behavioral mngmt)	18 Months	NR₫	Low	145.81ª	138.68ª	-7.13	-1.85	-1.81, NR
N/A	Maciejewski 2014	DHT + RPM (Poor BPC at baseline, behavioral mngmt)	24 Months	NR₫	Low	145.81ª	139.48ª	-6.33	-1.12	-1.26, NR

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% Cl), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
N/A	Maciejewski 2014	DHT + RPM (Poor BPC at baseline, behavioral mngmt)	30 Months	NR₫	Low	145.81ª	138.26ª	-7.55	-2.69	-3.00, NR
N/A	Maciejewski 2014	DHT + RPM (Poor BPC at baseline, behavioral mngmt)	36 Months	NR₫	Low	145.81ª	135.17ª	-10.64	-6.49	-7.03, NR
N/A	Maciejewski 2014	DHT + RPM (Poor BPC at baseline, medication mngmt)	6 Months	NR₫	Low	145.81ª	141.75ª	-4.06	-1.20	-1.15, NR
N/A	Maciejewski 2014	DHT + RPM (Poor BPC at baseline, medication mngmt)	12 Months	NR₫	Low	145.81ª	139.50ª	-6.31	-1.68	-1.64, NR
N/A	Maciejewski 2014	DHT + RPM (Poor BPC at baseline, medication mngmt)	18 Months	NR₫	Low	145.81ª	139.05ª	-6.76	-1.48	-1.47, NR
N/A	Maciejewski 2014	DHT + RPM (Poor BPC at baseline, medication mngmt)	24 Months	NR₫	Low	145.81ª	139.48ª	-6.33	-1.12	-1.17, NR
N/A	Maciejewski 2014	DHT + RPM (Poor BPC at baseline, medication mngmt)	30 Months	NR₫	Low	145.81ª	139.75ª	-6.06	-1.20	-1.29, NR
N/A	Maciejewski 2014	DHT + RPM (Poor BPC at baseline, medication mngmt)	36 Months	NR₫	Low	145.81ª	139.94ª	-5.87	-1.72	-1.81, NR
N/A	Tani 2017	DHT + RPM	3 Months	62	High	141.2 (12.3)	134.4 (12.1)	-6.8	<mark>1.6</mark> , 0.56	NR, 0.17
N/A	Tani 2017	DHT + RPM	3 Months	63	High	139.7 (15.8)	131.3 (13.2)	-8.4	NR, reference	NR, reference
N/A	Kim 2014	DHT + RPM	6 Months	184	High	141 (17)	132 (15)	-9.1 (NR), NR	-7.1	-6.0, 0.001
N/A	Kim 2014	DHT + RPM	12 Months	184	High	141 (17)	131 (15)	-10	-7	-6.1, 0.002

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% CI), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
N/A	Kim 2014	DHT + RPM	18 Months	184	High	141 (17)	133 (16)	-8	-4	-2.9, 0.123
N/A	Kim 2014	Usual Care	6 Months	185	High	140 (21)	138 (21)	-2	reference	reference
N/A	Kim 2014	Usual Care	12 Months	185	High	140 (21)	137 (22)	-3	reference	reference
N/A	Kim 2014	Usual Care	18 Months	185	High	140 (21)	136 (19)	-4	reference	reference
N/A	Abel 2022, Abel 2023	DHT + RPM	9 Months	45	Some	140 (NR)ª	124 (NR)ª	-16	<mark>-2</mark> , 0.17	-1
N/A	Abel 2022, Abel 2023	Usual Care	9 Months	45	Some	139 (NR)ª	125 (NR)ª	-14	reference	reference
N/A	Chandler 2019	DHT only	1 Months	26	Low	152.3 (NR)	125.3 (NR)	-27	-16.9	-15.3, <0.001
N/A	Chandler 2019	DHT only	3 Months	26	Low	152.3 (NR)	120.4 (NR)	-31.9	-18.7	-17.1, <0.001
N/A	Chandler 2019	DHT only	6 Months	26	Low	152.3 (NR)	121.2 (NR)	-31.1	-19.3	-17.7, <0.001
N/A	Chandler 2019	DHT only	9 Months	26	Low	152.3 (NR)	121.8 (NR)	-30.5	-25.5	<mark>-23.9</mark> , <0.001
N/A	Chandler 2019	Usual Care	1 Months	28	Low	150.7 (NR)	140.6 (NR)	-10.1	reference	reference
N/A	Chandler 2019	Usual Care	3 Months	28	Low	150.7 (NR)	137.5 (NR)	-13.2	reference	reference
N/A	Chandler 2019	Usual Care	6 Months	28	Low	150.7 (NR)	138.9 (NR)	-11.8	reference	reference
N/A	Chandler 2019	Usual Care	9 Months	28	Low	150.7 (NR)	145.7 (NR)	-5	reference	reference
Comparative - 0	Observational									
Ochsner Digital Medicine	Milani 2017	DHT + RPM	90 Days	156	Good	147 (19)	133 (12)	<mark>-14</mark> , <0.001	-10, NR	NR
Ochsner Digital Medicine	Milani 2017	Usual Care	90 Days	400	Good	147 (5)	143 (14)	- 4 , <0.001	reference	NR

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% CI), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
VitalSight (Omron Healthcare)	Petito 2023a	DHT + RPM	3 Months	288	Good	142.7 (19.5)	140.8 (19.1)	-1.9	-0.7	1.2, 0.33
VitalSight (Omron Healthcare)	Petito 2023a	DHT + RPM	6 Months	288	Good	142.7 (19.5)	137.7 (17.7)	-5	-1.3	0.6, 0.62
VitalSight (Omron Healthcare)	Petito 2023a	DHT + RPM	9 Months	288	Good	142.7 (19.5)	137.2 (18.0)	-5.5	-0.6	1.4, 0.25
VitalSight (Omron Healthcare)	Petito 2023a	DHT + RPM	12 Months	288	Good	142.7 (19.5)	135.9 (18.5)	-6.8	-2.1	-0.1, 0.91
VitalSight (Omron Healthcare)	Petito 2023a	Usual Care	3 Months	1152	Good	141.2 (18.7)	140.0 (18.9)	-1.2	reference	reference
VitalSight (Omron Healthcare)	Petito 2023a	Usual Care	6 Months	1152	Good	141.2 (18.7)	137.5 (17.7)	-3.7	reference	reference
VitalSight (Omron Healthcare)	Petito 2023a	Usual Care	9 Months	1152	Good	141.2 (18.7)	136.3 (18.0)	-4.9	reference	reference
VitalSight (Omron Healthcare)	Petito 2023a	Usual Care	12 Months	1152	Good	141.2 (18.7)	136.5 (18.4)	-4.7	reference	reference
VitalSight (Omron Healthcare)	Petito 2023a	DHT + RPM	3 Months	288	Good	142.7 (19.5)	134.2 (17.9)	-8.5	-7.3	-5.4, <0.001
VitalSight (Omron Healthcare)	Petito 2023a	DHT + RPM	6 Months	288	Good	142.7 (19.5)	132.6 (18.0)	-10.1	-6.4	-4.4, <0.001
VitalSight (Omron Healthcare)	Petito 2023a	DHT + RPM	9 Months	288	Good	142.7 (19.5)	133.2 (18.5)	-9.5	-4.6	-2.6, 0.04
VitalSight (Omron Healthcare)	Petito 2023a	DHT + RPM	12 Months	288	Good	142.7 (19.5)	132.3 (17.9)	-10.4	-5.7	-3.8, 0.003

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% CI), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
VitalSight (Omron Healthcare)	Petito 2023a	Usual Care	3 Months	1152	Good	141.2 (18.7)	140.0 (18.9)	-1.2	reference	reference
VitalSight (Omron Healthcare)	Petito 2023a	Usual Care	6 Months	1152	Good	141.2 (18.7)	137.5 (18.6)	-3.7	reference	reference
VitalSight (Omron Healthcare)	Petito 2023a	Usual Care	9 Months	1152	Good	141.2 (18.7)	136.3 (18.0)	-4.9	reference	reference
VitalSight (Omron Healthcare)	Petito 2023a	Usual Care	12 Months	1152	Good	141.2 (18.7)	136.5 (18.4)	-4.7	reference	reference
VitalSight (Omron Healthcare)	Persell 2022a	DHT + RPM	3 Months	288	Good	142.7 (19.5)	134.2 (17.9)	-8.5	-7.2 , 0.61	- 5 .7, <0.001
VitalSight (Omron Healthcare)	Persell 2022a	DHT + RPM	6 Months	288	Good	142.7 (19.5)	132.6 (18.0)	-10.1	<mark>-6.4</mark> , 0.61	<mark>-4.9</mark> , <0.001
VitalSight (Omron Healthcare)	Persell 2022a	DHT + RPM	9 Months	288	Good	142.7 (19.5)	133.1 (18.5)	-9.6	-4.7, 0.61	-3.2, 0.004
VitalSight (Omron Healthcare)	Persell 2022a	Usual Care	3 Months	1152	Good	141.2 (18.7)	139.9 (18.8)	-1.3	reference	reference
VitalSight (Omron Healthcare)	Persell 2022a	Usual Care	6 Months	1152	Good	141.2 (18.7)	137.5 (18.6)	-3.7	reference	reference
VitalSight (Omron Healthcare)	Persell 2022a	Usual Care	9 Months	1152	Good	141.2 (18.7)	136.3 (17.9)	-4.9	reference	reference
VitalSight (Omron Healthcare)	Persell 2024	DHT + RPM	18 Months	288	Good	142.7 (19.5)	131.6 (18.5)	-11.1	-5.9	-3.9, 0.004
VitalSight (Omron Healthcare)	Persell 2024	Usual Care	18 Months	1152	Good	141.2 (18.7)	136.0 (19.0)	-5.2	reference	reference

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% CI), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
VitalSight (Omron Healthcare)	Persell 2024	DHT + RPM	18 Months	288	Good	142.7 (19.5)	133.6 (18.5)	-9.1	-4	-1.9, 0.15
VitalSight (Omron Healthcare)	Persell 2024	Usual Care	18 Months	1152	Good	141.2 (18.7)	136.1 (19.1)	-5.1	reference	reference
VitalSight (Omron Healthcare)	Petito 2023b	DHT + RPM	1 Year	207	Good	148.5 (NR)	145.3 (16.6)	-3.2	- 1.9 , 0.003	<mark>-1.8</mark> , 0.1818
VitalSight (Omron Healthcare)	Petito 2023b	Usual Care	1 Year	828	Good	148.4 (NR)	147.1 (15.6)	-1.3	reference	reference
VitalSight (Omron Healthcare)	Petito 2023b	DHT + RPM	1 Year	2356	Good	131.3 (NR)	131.6 (15.5)	0.3	-1.0, 0.011	-1.2 , <0.008
VitalSight (Omron Healthcare)	Petito 2023b	Usual Care	1 Year	4712	Good	131.5 (NR)	132.8 (15.9)	1.3	reference	reference
VitalSight (Omron Healthcare)	Persell 2021	DHT + RPM	6 Months	207	Good	151.7 (10.1)	146.0 (16.5)	-5.7	-1.2	<mark>-0.9</mark> , 0.514
VitalSight (Omron Healthcare)	Persell 2021	Usual Care	6 Months	828	Good	151.4 (10.6)	146.9 (17.1)	-4.5	reference	reference
VitalSight (Omron Healthcare)	Persell 2021	DHT + RPM	6 Months	2356	Good	131.3 (14.7)	132.8 (16.2)	1.5	-0.7	<mark>-0.7</mark> , 0.094
VitalSight (Omron Healthcare)	Persell 2021	Usual Care	6 Months	4712	Good	131.3 (14.7)	133.5 (16.6)	2.2	reference	reference
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	3 Months	234	Good	154.3 (12.7)	149.7 (NR)	-4.6	-2	0.2
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	6 Months	234	Good	154.3 (12.7)	147.3 (NR)	-7	-1.5	0.7

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% Cl), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	3 Months	600	Good	153.0 (11.2)	148.4 (NR)	-4.6	-1	-1.1
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	6 Months	600	Good	153.0 (11.2)	144.9 (NR)	-8.1	-2.6	-1.7
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	Usual Care	3 Months	1617	Good	152.1 (11.9)	149.5 (NR)	-2.6	reference	reference
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	Usual Care	6 Months	1617	Good	152.1 (11.9)	146.6 (NR)	-5.5	reference	reference
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	3 Months	1511	Good	137.5 (16.1)	135.8 (NR)	-1.7	-2	<mark>0.6</mark> , 0.30
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	6 Months	1511	Good	137.5 (16.1)	134.7 (NR)	-2.8	-1.9	0.7, 0.28
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	3 Months	3807	Good	135.6 (16.1)	135.2 (NR)	-0.4	-0.7	<mark>0,</mark> 0.91
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	6 Months	3807	Good	135.6 (16.1)	134.0 (NR)	-1.6	-0.7	<mark>0</mark> , 0.98
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	Usual Care	3 Months	11972	Good	134.9 (15.5)	135.2 (NR)	0.3	reference	reference
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	Usual Care	6 Months	11972	Good	134.9 (15.5)	134.0 (NR)	-0.9	reference	reference
N/A	Blood 2023	DHT only	6 Months	3370	Good	144.4 (17.1)	135.7 (17.4)	-8.7, NR	<mark>-8.2</mark> , <0.001	-4.2
N/A	Blood 2023	DHT only	6 Months	301	Good	140.4 (16.7)	139.9 (18.6)	-0.5, NR	reference	reference
N/A	Blood 2023	DHT only	1 Year	3370	Good	144.4 (17.1)	134.7 (17.6)	-9.7, NR	- <mark>9.9</mark> , <0.001	-5.9

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% CI), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
N/A	Blood 2023	DHT only	1 Year	301	Good	140.4 (16.7)	140.6 (27.5)	0.2, NR	reference	reference
N/A	Ciemins 2018	DHT + RPM	NR	131	Good	138.4 (16.8)	NR	NR	NR	NR
N/A	Ciemins 2018	Usual Care	NR	353	Good	137.6 (21.8)	NR	NR	NR	NR
N/A	Clark 2021	DHT + RPM	6 Months	118	Good	141.6 (14.1)	127.8 (11.9)	-14.1 (-16.8, -11.4), <0.001	-13.2	-13.7
N/A	Clark 2021	Usual Care	6 Months	871	Good	152.7 (15.4)	145.4	-7.3 (-8.7, -6.0), <0.001	-6.4	NR
N/A	Clark 2021	Usual Care	6 Months	NR	Good	142.4 (11.8)	141.5 (15.6)	-0.9 (-3.2, 1.4), 0.37	reference	NR
N/A	Makutonin 2023	DHT + RPM	90 Days	13	Poor	NR	NR	-13.5 (-28.2, 1.1), 0.174	-9.8	NR
N/A	Makutonin 2023	Usual Care	90 Days	299	Poor	NR	NR	-3.7 (-6.3, -1.0), NR	reference	NR
Non-comparativ	ve - Control Tria	ıl								
N/A	Taber 2018	DHT + RPM	6 Months	60	Good	NR	NR	-0.63, 0.075	NR	NR
N/A	Taber 2018	DHT + RPM	6 Months	19	Good	NR	NR	-0.13, 0.865	reference	NR
N/A	Taber 2018	DHT + RPM	6 Months	41	Good	NR	NR	-0.86, 0.026	-0.73	NR
Non-comparativ	ve - Observatior	nal								
Cadence	Feldman 2023	DHT + RPM	136 Days	4006	N/A	144 (NR)	135	-9 (NR), <0.001	N/A	N/A
Hello Heart	Gazit 2021	DHT only	12 weeks	3291	Poor	NR	NR	-10.3	N/A	N/A
Hello Heart	Gazit 2021	DHT only	1 Year	3291	Poor	NR	NR	-10.2	N/A	N/A
Hello Heart	Gazit 2021	DHT only	2 Years	3291	Poor	NR	NR	-10.4	N/A	N/A

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% CI), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
Hello Heart	Gazit 2021	DHT only	3 Years	3291	Poor	NR	NR	-12.2	N/A	N/A
Hello Heart	Gazit 2021	DHT only	12 weeks	3757	Poor	NR	NR	-17.5	N/A	N/A
Hello Heart	Gazit 2021	DHT only	1 Year	3757	Poor	NR	NR	-19.2	N/A	N/A
Hello Heart	Gazit 2021	DHT only	2 Years	3757	Poor	NR	NR	-19.4	N/A	N/A
Hello Heart	Gazit 2021	DHT only	3 Years	3757	Poor	NR	NR	-20.9	N/A	N/A
Hello Heart	Paz 2024	DHT only	12 weeks	11610	Poor	NR	NR	-9.56	N/A	N/A
Hello Heart	Paz 2024	DHT only	1 Year	11610	Poor	NR	NR	-10.0	N/A	N/A
Hello Heart	Paz 2024	DHT only	2 Years	11610	Poor	NR	NR	-10.1	N/A	N/A
Hello Heart	Paz 2024	DHT only	12 weeks	14055	Poor	NR	NR	-15.6	N/A	N/A
Hello Heart	Paz 2024	DHT only	1 Year	14055	Poor	NR	NR	-17.1	N/A	N/A
Hello Heart	Paz 2024	DHT only	2 Years	14055	Poor	NR	NR	-18.6	N/A	N/A
Hello Heart	Roberts 2022	DHT only	6 Months	4058	N/A	134.62 (NR)	124.75	-9.87	N/A	N/A
Hello Heart	Roberts 2022	DHT only	6 Months	3971	N/A	150.27 (NR)	133.62	-16.65	N/A	N/A
Lark	Branch 2022	DHT only	3 Months	287	Good	134.3 (0.17)	129.1	-5.2 (-6.8, -3.7), <0.001	N/A	N/A
Lark	Branch 2022	DHT only	6 Months	287	Good	134.3 (0.17)	127	-7.3 (-9.8, -4.8), <0.001	N/A	N/A
Lark	Branch 2022	DHT only	3 Months	226	Good	149.5 (0.60)	137.1	-12.4 (-14.9, -10.0), <0.001	N/A	N/A

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% CI), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
Lark	Branch 2022	DHT only	6 Months	226	Good	149.5 (0.60)	136.5	-13.0 (-16.2, -9.8), <0.001	N/A	N/A
Teladoc (Livongo)	Dzubur 2023	DHT + RPM	12 Months	4257	Fair	NR	NR	-5	N/A	N/A
Teladoc (Livongo)	Shah 2022	DHT + RPM	NR	33440	Poor	133.8 (NR)	127.5 (NR)	-6.3	N/A	N/A, reference
Teladoc (Livongo)	Shah 2022	DHT + RPM	NR	39266	Poor	135.5 (NR)	131.6 (NR)	-3.9	N/A	N/A, <0.001
Ochsner Digital Medicine	Milani 2022	DHT + RPM (Overall)	NR	3305	Poor	144.9 (11.8)	NR	NR	N/A	N/A
Ochsner Digital Medicine	Milani 2022	DHT + RPM (0 barriers ^b)	NR	2117	Poor	144.6 (11.5)	NR	NR	N/A	N/A
Ochsner Digital Medicine	Milani 2022	DHT + RPM (1 barrier ^b)	NR	841	Poor	144.6 (12.0)	NR	NR	N/A	N/A
Ochsner Digital Medicine	Milani 2022	DHT + RPM (2-3 barriers ^b)	NR	347	Poor	147.2 (13.3)	NR	NR	N/A	N/A
Ochsner Digital Medicine	Milani 2020	DHT + RPM	24 Months	803	Poor	137 (12)	129 (11)	<mark>-8</mark> (NR), <0.001	N/A	N/A
Omada Health	Wilson- Anumudu 2022	DHT + RPM	3 Months	148	Poor	138.5 (13.1)	130.7 (NR)	-7.0 (-9.3, -4.7), <0.001	N/A	N/A
Omada Health	Wilson- Anumudu 2022	DHT + RPM	3 Months	19	Poor	130.0 (NR)	126.0 (NR)	-3.6 (-7.8, -0.6), 0.09	N/A	N/A
Omada Health	Wilson- Anumudu 2022	DHT + RPM	3 Months	76	Poor	145.0 (NR)	135.0 (NR)	-10.3, (-13.4, -7.1), <0.001	N/A	N/A
Omada Health	Wu 2023	DHT + RPM	12 Months	788	Poor	142.6 (NR)	134.6 (NR)	-8.0 (-9.0, -7.1), <0.001	N/A	N/A
Omada Health	Wu 2023	DHT + RPM	12 Months	323	Poor	132 (NR)	130.5 (NR)	-1.5 (NR), NR	N/A	N/A
Omada Health	Wu 2023	DHT + RPM	12 Months	465	Poor	146.3 (NR)	136 (NR)	-10.3 (NR), NR	N/A	N/A

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% CI), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
Vida	Mao 2017	DHT + RPM	4 Months	151	Good	131.27 (1.52)	125.31 (1.18)	-5.96 (NR), 0.002	N/A	N/A
HealthSnap	Smith 2023	DHT + RPM	NR	479	N/A	NR	NR	-8.0, (NR), <0.001	N/A	N/A
HealthSnap	Smith 2023	DHT + RPM	NR	1345	N/A	NR	NR	-11.4, (NR), <0.001	N/A	N/A
HealthSnap	Smith 2023	DHT + RPM	NR	NR	N/A	NR	NR	-15.9 (NR), <0.001	N/A	N/A
HealthSnap	Smith 2023	DHT + RPM	NR	NR	N/A	NR	NR	-20.81 (NR), <0.001	N/A	N/A
iHealth Labs	Angellotti 2019	DHT + RPM	7 Weeks	9	Poor	147 (NR)	143 (NR)	-4	N/A	N/A
iHealth Unified Care	Wang 2022	DHT + RPM	1.5 Years	3364	N/A	138	132.7	-5.3 (NR), <0.001	N/A	N/A
iHealth Unified Care	Wang 2022	DHT + RPM	1.5 Years	1552	N/A	NR	NR	-11.9 (NR), <0.001	N/A	N/A
LucidAct Health	Laffin 2021	DHT + RPM	3 Months	267	N/A	143 (NR)	138 (NR)	-5	N/A	N/A
LucidAct Health	Laffin 2021	DHT + RPM	6 Months	267	N/A	143 (NR)	136 (NR)	-7	N/A	N/A
LucidAct Health	Laffin 2021	DHT + RPM	9 Months	267	N/A	143 (NR)	134 (NR)	-9	N/A	N/A
LucidAct Health	Laffin 2021	DHT + RPM	12 Months	267	N/A	143 (NR)	136 (NR)	-7	N/A	N/A
Mass General Brigham	Lee 2023	DHT + RPM	6 Months	512	Poor	141.8 (14.0)	131.9 (15.7)	-9.9 (NR), <0.001	N/A	N/A
Mass General Brigham	Lee 2023	DHT + RPM	6 Months	475	Poor	144.7 (14.7)	134.6 (15.3)	-10.1 (NR), <0.001	N/A	N/A
mI SMART	Mallow 2018	DHT + RPM	12 Weeks	29	Poor	134.24 (15.57)	118.93 (12.56)	-15.31 (NR), 0.001	N/A	N/A
MITRE Corporation	Kim 2023	DHT + RPM	3 Months	20	Poor	147.75 (24.51)	132.94 (18.04)	-14.81 (NR), NR	N/A	N/A

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% Cl), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
MITRE Corporation	Kim 2023	DHT + RPM	6 Months	15	Poor	147.75 (24.51)	130.58 (15.96)	-13.55 (NR), NR	N/A	N/A
MITRE Corporation	Kim 2023	DHT + RPM	141.76 Days	32	Poor	NR	NR	-10.65 (NR), NR	N/A	N/A
VitalSight (Omron Healthcare)	Ishak 2024	DHT + RPM	15 Months	29	Poor	155.2 (15.8)	132.1 (10.9)	-23.1 (NR), NR	N/A	N/A
VitalSight (Omron Healthcare)	Shane- McWhorter 2014	DHT + RPM	7 Months	105	Poor	130.7 (NR)	122.9 (NR)	-7.8 (-11.69, -3.92), <0.001	N/A	N/A
One Drop	Sears 2021	DHT only	30+ Days	94	N/A	144.6 (11.3)	128.1	-16.5 (NR), <0.01	N/A	N/A
One Drop	Sears 2021	DHT only	30+ Days	27	N/A	NR	NR	-21.4 (NR), <0.01	N/A	N/A
Palo Alto Medical Foundation	Lv 2017	DHT + RPM	6 Months	147	Poor	138.4 (10.6)	126.7 (9.8)	-11.7 (NR), <0.001	N/A	N/A
Withings	Poblete 2022	DHT + RPM	16 Days	177	N/A	136.45 (20.5)	NR	NR	N/A	N/A
N/A	Buis 2020	DHT + RPM	12 Weeks	15	Good	137.3 (11.1)	131.0 (9.9)	<mark>-6.3</mark> , 0.02	NR	NR
N/A	Fisher 2019	DHT + RPM	6 Months	105	Poor	155 (18)	124 (8)	<mark>-31</mark> (NR), <0.001	N/A	N/A
N/A	Fisher 2019	DHT + RPM	6 Months	57	Poor	157 (NR)	124 (NR)	-33	N/A	N/A
N/A	Fisher 2019	DHT + RPM	6 Months	73	Poor	157 (NR)	123 (NR)	-34	N/A	N/A
N/A	Fisher 2019	DHT + RPM	6 Months	79	Poor	158 (NR)	124 (NR)	-34	N/A	N/A
N/A	Fisher 2019	DHT + RPM	6 Months	30	Poor	154 (NR)	122 (NR)	-32	N/A	N/A
N/A	Fisher 2019	DHT + RPM	6 Months	16	Poor	159 (NR)	124 (NR)	-35	N/A	N/A

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BASELINE, Mean (SD)	FOLLOW-UP, Mean (SD)	Within Group Change from Baseline (95% CI), Mean, p-value	Between Group Difference from Baseline, Mean, p-value	Between Group Difference at Follow-up, Mean, p-value
N/A	Fisher 2019	DHT + RPM	6 Months	5	Poor	145 (NR)	125 (NR)	-20	N/A	N/A
N/A	Fisher 2019	DHT + RPM	6 Months	25	Poor	155 (NR)	126 (NR)	-29	N/A	N/A
N/A	Liyanage-Don 2022	DHT + RPM	NR	248	N/A	140 (18)	NR	NR	N/A	N/A
N/A	Liyanage-Don 2023a	DHT + RPM	6 Months	433	N/A	140 (18)	131 (15)	-9	N/A	N/A
N/A	Paiva 2023	DHT + RPM	6 Months	95	N/A	NR	NR	-20.6 (NR), <0.05	N/A	N/A
N/A	Park 2021	DHT + RPM	150 Days	475	Poor	133.7 (NR)	131.4 (NR)	-2.2 (NR), <0.001	N/A	N/A
N/A	Park 2021	DHT + RPM	150 Days	306	Poor	137.9 (NR)	136.3 (NR)	-1.6 (NR), 0.02	N/A	N/A
N/A	Reddy 2022	DHT + RPM	8 Weeks	36	N/A	142.19 (NR)	131.69	-10.5 (NR), <0.003	N/A	N/A
N/A	Singer 2023	DHT + RPM	12 Weeks	200	N/A	142 (NR)	134 (NR)	-8	N/A	N/A
N/A	Singer 2023	DHT + RPM	24 Weeks	200	N/A	142 (NR)	135 (NR)	-7	N/A	N/A

Notes. BPC = blood pressure control. CI = confidence interval. DHT = digital health technology. ITT = intent to treat. N/A = not applicable. NR = not reported. RCT = randomized control trial. RPM = remote patient monitoring. SBP = systolic blood pressure. SD = standard deviation. Red values are calculated values from other data provided in article (and do not have Standard Deviations or Confidence Intervals). Bold values indicate statistically significant values. ^aValues were extracted from a figure. ^bBarriers to healthcare are defined as financial strain, health literacy, and/or patient activation. ^cNot reported by arms; n=348 for all patients with adequate BP control at baseline. ^dNot reported by arm; n=243 for all patients with poor BP control at baseline.

Appendix G – All Studies with BPC Outcomes

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BPC at Baseline, %	BPC at Follow-Up, %	Within Group Change from Baseline, %, p-value	Between Group Difference in Change from Baseline, %, p-value	Between Group Difference at Follow-up, %, p-value
Comparative - RCT										
AMC Health	Asche 2016	DHT + RPM	6 Months	177	Some	NR	79	NR	NR	NR

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BPC at Baseline, %	BPC at Follow-Up, %	Within Group Change from Baseline, %, p-value	Between Group Difference in Change from Baseline, %, p-value	Between Group Difference at Follow-up, %, p-value
AMC Health	Asche 2016	Usual Care	6 Months	174	Some	NR	50	NR	NR	NR
AMC Health	Asche 2016	DHT + RPM	6 Months	151	Some	NR	79	NR	NR	NR
AMC Health	Asche 2016	Usual Care	6 Months	144	Some	NR	48	NR	NR	NR
AMC Health	Asche 2016	DHT + RPM	6 Months	77	Some	NR	75	NR	NR	NR
AMC Health	Asche 2016	Usual Care	6 Months	78	Some	NR	53	NR	NR	NR
AMC Health	Asche 2016	DHT + RPM	6 Months	100	Some	NR	82	NR	NR	NR
AMC Health	Asche 2016	Usual Care	6 Months	96	Some	NR	49	NR	NR	NR
AMC Health	Beran 2018	DHT + RPM	12 Months	224	Some	NR	47.8	NR	N/A	N/A
Lark	Persell 2020	DHT + RPM	6 Months	144	Some	25.0	50.0	25.0	0.9, 0.66	-1.3
Lark	Persell 2020	DHT Only	6 Months	152	Some	27.0	51.3	24.3	reference	reference
Columbia University Irving Medical Center	Naqvi 2022	DHT + RPM	12 Weeks	25	High	NR	76	NR	NR	<mark>51, <0.01</mark>
Columbia University Irving Medical Center	Naqvi 2022	Usual Care	12 Weeks	25	High	NR	25	NR	NR	reference
Columbia University Irving Medical Center	Naqvi 2022	DHT + RPM	3 Months	5	High	40	100	60	45	71
Columbia University Irving Medical Center	Naqvi 2022	Usual Care	3 Months	7	High	14	29	15	reference	reference
Columbia University Irving Medical Center	Naqvi 2022	DHT + RPM	3 Months	13	High	23	62	39	55	45
Columbia University Irving Medical Center	Naqvi 2022	Usual Care	3 Months	6	High	33	17	-16	reference	reference
		- 1						1		

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BPC at Baseline, %	BPC at Follow-Up, %	Within Group Change from Baseline, %, p-value	Between Group Difference in Change from Baseline, %, p-value	Between Group Difference at Follow-up, %, p-value
HealthComp	Kim 2016	DHT + RPM	6 Months	52	Some	56	65	<mark>9,</mark> 0.23	-9	14
HealthComp	Kim 2016	DHT only	6 Months	43	Some	33	51	<mark>18</mark> , 0.001	reference	reference
VitalSight (Omron Healthcare)	Pletcher 2022	DHT only	6 Months	1051	Low	NR	32	NR	NR	<mark>3</mark> , 0.03
VitalSight (Omron Healthcare)	Pletcher 2022	Usual Care	6 Months	1050	Low	NR	29	NR	NR	reference
VitalSight (Omron Healthcare)	Pletcher 2022	DHT only	6 Months	1051	Low	NR	13	NR	NR	1, 0.74
VitalSight (Omron Healthcare)	Pletcher 2022	Usual Care	6 Months	1050	Low	NR	12	NR	NR	reference
N/A	Maciejewski 2014	DHT + RPM (Combined arms)	6 Months	147	Low	31.1ª	42.5ª	11.4	5.3	5.3, NR
N/A	Maciejewski 2014	DHT + RPM (Combined arms)	12 Months	147	Low	31.1ª	49.5ª	18.4	7.4	7.4, NR
N/A	Maciejewski 2014	DHT + RPM (Combined arms)	18 Months	147	Low	31.1ª	49.7ª	18.6	5.8	5.8, NR
N/A	Maciejewski 2014	DHT + RPM (Combined arms)	24 Months	147	Low	31.1ª	51.5ª	20.4	5.8	5.8, NR
N/A	Maciejewski 2014	DHT + RPM (Combined arms)	30 Months	147	Low	31.1ª	51.6ª	20.5	10.2	10.1, <0.05
N/A	Maciejewski 2014	DHT + RPM (Combined arms)	36 Months	147	Low	31.1ª	54.6ª	23.5	20.4	20.4, <0.05
N/A	Maciejewski 2014	DHT + RPM (Behavioral mngmt)	6 Months	148	Low	31.1ª	41.1ª	10.0	3.8	3.8, NR
N/A	Maciejewski 2014	DHT + RPM (Behavioral mngmt)	12 Months	148	Low	31.1ª	46.1ª	15.0	4.0	4.0, NR
N/A	Maciejewski 2014	DHT + RPM (Behavioral mngmt)	18 Months	148	Low	31.1ª	44.0ª	12.9	0.1	0.1, NR
N/A	Maciejewski 2014	DHT + RPM (Behavioral mngmt)	24 Months	148	Low	31.1ª	44.0ª	12.9	-1.7	-1.8, NR

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BPC at Baseline, %	BPC at Follow-Up, %	Within Group Change from Baseline, %, p-value	Between Group Difference in Change from Baseline, %, p-value	Between Group Difference at Follow-up, %, p-value
N/A	Maciejewski 2014	DHT + RPM (Behavioral mngmt)	30 Months	148	Low	31.1ª	45.3ª	14.2	3.9	3.9, NR
N/A	Maciejewski 2014	DHT + RPM (Behavioral mngmt)	36 Months	148	Low	31.1ª	51.1ª	20.0	16.9	17.1, <0.05
N/A	Maciejewski 2014	DHT + RPM (Medication mngmt)	6 Months	149	Low	31.1ª	44.5ª	13.4	7.2	7.1, NR
N/A	Maciejewski 2014	DHT + RPM (Medication mngmt)	12 Months	149	Low	31.1ª	51.0ª	19.9	8.9	8.8, NR
N/A	Maciejewski 2014	DHT + RPM (Medication mngmt)	18 Months	149	Low	31.1ª	48.1ª	17.0	4.2	4.4, NR
N/A	Maciejewski 2014	DHT + RPM (Medication mngmt)	24 Months	149	Low	31.1ª	46.8ª	15.7	1.1	5.1, NR
N/A	Maciejewski 2014	DHT + RPM (Medication mngmt)	30 Months	149	Low	31.1ª	48.0ª	16.9	6.6	6.6, <0.05
N/A	Maciejewski 2014	DHT + RPM (Medication mngmt)	36 Months	149	Low	31.1ª	54.4ª	23.3	20.2	20.2, <0.05
N/A	Maciejewski 2014	Usual Care	6 Months	147	Low	31.1ª	37.2ª	6.1	reference	reference
N/A	Maciejewski 2014	Usual Care	12 Months	147	Low	31.1ª	42.1ª	11.0	reference	reference
N/A	Maciejewski 2014	Usual Care	18 Months	147	Low	31.1ª	43.9ª	12.8	reference	reference
N/A	Maciejewski 2014	Usual Care	24 Months	147	Low	31.1ª	45.7ª	14.6	reference	reference
N/A	Maciejewski 2014	Usual Care	30 Months	147	Low	31.1ª	41.4ª	10.3	reference	reference
N/A	Maciejewski 2014	Usual Care	36 Months	147	Low	31.1ª	34.2ª	3.1	reference	reference
N/A	Tani 2017	DHT + RPM	5 Months	62	High	NR	45.2	NR	NR	2.3, 0.80
N/A	Tani 2017	DHT + RPM	5 Months	63	High	NR	42.9	NR	NR	reference

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BPC at Baseline, %	BPC at Follow-Up, %	Within Group Change from Baseline, %, p-value	Between Group Difference in Change from Baseline, %, p-value	Between Group Difference at Follow-up, %, p-value
N/A	Kim 2014	DHT + RPM	6 Months	184	High	49.5	58.5	9	<mark>9.8</mark> , 0.231	16.1, 0.002
N/A	Kim 2014	DHT + RPM	12 Months	184	High	49.5	67.9	18.4	<mark>9.1</mark> , 0.231	15.4 , 0.003
N/A	Kim 2014	DHT + RPM	18 Months	184	High	49.5	54.3	4.8	<mark>-5</mark> , 0.231	<mark>1.3</mark> , 0.835
N/A	Kim 2014	Usual Care	6 Months	185	High	43.2	42.4	-0.8	reference	NR, reference
N/A	Kim 2014	Usual Care	12 Months	185	High	43.2	52.5	9.3	reference	NR, reference
N/A	Kim 2014	Usual Care	18 Months	185	High	43.2	53.0	9.8	reference	NR, reference
N/A	Chandler 2019	DHT only	1 Months	26	Low	0	80.0	80	37.7	37.7, 0.005
N/A	Chandler 2019	DHT only	3 Months	26	Low	0	92.0	92	29.5	29.5 , 0.013
N/A	Chandler 2019	DHT only	6 Months	26	Low	0	94.4	94.4	36.5	36.5 , 0.009
N/A	Chandler 2019	DHT only	9 Months	26	Low	0	92.3	92.3	64.5	64.5 , 0.001
N/A	Chandler 2019	Usual Care	1 Months	28	Low	0	42.3	42.3	reference	reference
N/A	Chandler 2019	Usual Care	3 Months	28	Low	0	62.5	62.5	reference	reference
N/A	Chandler 2019	Usual Care	6 Months	28	Low	0	57.9	57.9	reference	reference
N/A	Chandler 2019	Usual Care	9 Months	28	Low	0	27.8	27.8	reference	reference
Comparative - Obser	vational									
Ochsner Digital Medicine	Milani 2017	DHT + RPM	90 Days	156	Good	NR	71	NR	NR	<mark>40</mark> , <0.001

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BPC at Baseline, %	BPC at Follow-Up, %	Within Group Change from Baseline, %, p-value	Between Group Difference in Change from Baseline, %, p-value	Between Group Difference at Follow-up, %, p-value
Ochsner Digital Medicine	Milani 2017	Usual Care	90 Days	400	Good	NR	31	NR	NR	reference
VitalSight (Omron Healthcare)	Petito 2023a	DHT + RPM	12 Months	288	Good	35.4	71.5	36.1	17.2	13.4
VitalSight (Omron Healthcare)	Petito 2023a	Usual Care	12 Months	1152	Good	39.2	58.1	18.9	reference	reference
VitalSight (Omron Healthcare)	Petito 2023a	DHT + RPM	3 Months	288	Good	35.4	72.2	36.8	25	21.2
VitalSight (Omron Healthcare)	Petito 2023a	Usual Care	3 Months	1152	Good	39.2	51.0	11.8	reference	reference
VitalSight (Omron Healthcare)	Petito 2023a	DHT + RPM	6 Months	288	Good	35.4	72.9	37.5	20.1	16.3
VitalSight (Omron Healthcare)	Petito 2023a	Usual Care	6 Months	1152	Good	39.2	56.6	17.4	reference	reference
VitalSight (Omron Healthcare)	Petito 2023a	DHT + RPM	9 Months	288	Good	35.4	70.1	34.7	15.4	11.6
VitalSight (Omron Healthcare)	Petito 2023a	Usual Care	9 Months	1152	Good	39.2	58.5	19.3	reference	reference
VitalSight (Omron Healthcare)	Petito 2023a	DHT + RPM	12 Months	288	Good	35.4	71.5	36.1	17.2	13.4
VitalSight (Omron Healthcare)	Petito 2023a	Usual Care	12 Months	1152	Good	39.2	58.1	18.9	reference	reference
VitalSight (Omron Healthcare)	Petito 2023a	DHT + RPM	3 Months	288	Good	35.4	50.0	14.6	2.8	-1
VitalSight (Omron Healthcare)	Petito 2023a	Usual Care	3 Months	1152	Good	39.2	51.0	11.8	reference	reference
VitalSight (Omron Healthcare)	Petito 2023a	DHT + RPM	6 Months	288	Good	35.4	59.0	23.6	6.2	2.4
VitalSight (Omron Healthcare)	Petito 2023a	Usual Care	6 Months	1152	Good	39.2	56.6	17.4	reference	reference
VitalSight (Omron Healthcare)	Petito 2023a	DHT + RPM	9 Months	288	Good	35.4	58.3	22.9	3.6	-0.2

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BPC at Baseline, %	BPC at Follow-Up, %	Within Group Change from Baseline, %, p-value	Between Group Difference in Change from Baseline, %, p-value	Between Group Difference at Follow-up, %, p-value
VitalSight (Omron Healthcare)	Petito 2023a	Usual Care	9 Months	1152	Good	39.2	58.5	19.3	reference	reference
VitalSight (Omron Healthcare)	Petito 2023a	DHT + RPM	12 Months	288	Good	35.4	60.8	25.4	6.5	2.7
VitalSight (Omron Healthcare)	Petito 2023a	Usual Care	12 Months	1152	Good	39.2	58.1	18.9	reference	reference
VitalSight (Omron Healthcare)	Persell 2022a	DHT + RPM	3 Months	288	Good	35.4	63.5	28.1	19.2	<mark>15.4</mark> , <0.001
VitalSight (Omron Healthcare)	Persell 2022a	DHT + RPM	6 Months	288	Good	35.4	68.1	32.7	18	<mark>14.2</mark> , <0.001
VitalSight (Omron Healthcare)	Persell 2022a	DHT + RPM	9 Months	288	Good	35.4	67.0	31.6	14.2	<mark>10.4</mark> , <0.002
VitalSight (Omron Healthcare)	Persell 2022a	Usual Care	3 Months	1152	Good	39.2	48.1	8.9	reference	reference
VitalSight (Omron Healthcare)	Persell 2022a	Usual Care	6 Months	1152	Good	39.2	53.9	14.7	reference	reference
VitalSight (Omron Healthcare)	Persell 2022a	Usual Care	9 Months	1152	Good	39.2	56.6	17.4	reference	reference
VitalSight (Omron Healthcare)	Persell 2024	DHT + RPM	18 Months	288	Good	35.4	71.5	36.1	23.4	<mark>19.6</mark> , <0.001
VitalSight (Omron Healthcare)	Persell 2024	Usual Care	18 Months	1152	Good	39.2	51.9	12.7	reference	reference
VitalSight (Omron Healthcare)	Persell 2024	DHT + RPM	18 Months	288	Good	35.4	62.2	26.8	14.1	<mark>10.3</mark> , 0.004
VitalSight (Omron Healthcare)	Persell 2024	Usual Care	18 Months	1152	Good	39.2	51.9	12.7	reference	reference
VitalSight (Omron Healthcare)	Petito 2023b	DHT + RPM	6 Months	118	Good	54.2	69.5	15.3	N/A	NR
VitalSight (Omron Healthcare)	Petito 2023b	DHT + RPM	6 Months	207	Good	0	31.4	31.4	8.6	<mark>8.6</mark> , <0.007
VitalSight (Omron Healthcare)	Petito 2023b	Usual Care	6 Months	828	Good	0	22.8	22.8	reference	reference

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BPC at Baseline, %	BPC at Follow-Up, %	Within Group Change from Baseline, %, p-value	Between Group Difference in Change from Baseline, %, p-value	Between Group Difference at Follow-up, %, p-value
VitalSight (Omron Healthcare)	Petito 2023b	DHT + RPM	6 Months	2356	Good	71.1	64.0	-7.1	0.6	<mark>4.3</mark> , <0.001
VitalSight (Omron Healthcare)	Petito 2023b	Usual Care	6 Months	4712	Good	67.4	59.7	-7.7	reference	reference
VitalSight (Omron Healthcare)	Persell 2021	DHT + RPM	6 Months	207	Good	NR	34.3	NR	NR	7.4, 0.044
VitalSight (Omron Healthcare)	Persell 2021	Usual Care	6 Months	828	Good	NR	26.9	NR	NR	reference
VitalSight (Omron Healthcare)	Persell 2021	DHT + RPM	6 Months	2356	Good	NR	66.3	NR	NR	<mark>2.8</mark> , 0.020
VitalSight (Omron Healthcare)	Persell 2021	Usual Care	6 Months	4712	Good	NR	63.5	NR	NR	reference
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	3 Months	600	Good	NR	18.8	NR	NR	2.2
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	3 Months	234	Good	NR	21.8	NR	NR	5.2
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	Usual Care	3 Months	1617	Good	NR	16.6	NR	NR	reference
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	6 Months	600	Good	NR	30.7	NR	NR	3.6
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	6 Months	234	Good	NR	32.5	NR	NR	5.4
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	Usual Care	6 Months	1617	Good	NR	27.1	NR	NR	reference
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	3 Months	600	Good	NR	20.2	NR	NR	2.1, 0.37
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	3 Months	234	Good	NR	16.2	NR	NR	-1.9 , 0.92
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	Usual Care	3 Months	1617	Good	NR	18.1	NR	NR	reference
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	6 Months	600	Good	NR	30.5	NR	NR	3.4 , 0.07

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BPC at Baseline, %	BPC at Follow-Up, %	Within Group Change from Baseline, %, p-value	Between Group Difference in Change from Baseline, %, p-value	Between Group Difference at Follow-up, %, p-value
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	6 Months	234	Good	NR	28.6	NR	NR	1.5 , 0.13
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	Usual Care	6 Months	1617	Good	NR	27.1	NR	NR	reference
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	3 Months	3807	Good	NR	56.6	NR	NR	0.6
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	3 Months	1511	Good	NR	56.8	NR	NR	0.8
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	Usual Care	3 Months	11972	Good	NR	56.0	NR	NR	reference
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	6 Months	3807	Good	NR	56.9	NR	NR	-3.2
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	6 Months	1511	Good	NR	59.0	NR	NR	-1.1
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	Usual Care	6 Months	11972	Good	NR	60.1	NR	NR	reference
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	3 Months	3807	Good	NR	56.6	NR	NR	<mark>0.6</mark> , 0.26
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	3 Months	1511	Good	NR	55.7	NR	NR	-0.3, 0.67
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	Usual Care	3 Months	11972	Good	NR	56.0	NR	NR	reference
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	6 Months	3807	Good	NR	56.8	NR	NR	-3.3 , 0.41
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	DHT + RPM	6 Months	1511	Good	NR	58.1	NR	NR	-2 , 0.10
VitalSight (Omron Healthcare)	Persell 2023, Persell 2022b	Usual Care	6 Months	11972	Good	NR	60.1	NR	NR	reference
N/A	Ciemins 2018	DHT + RPM	9 Months	131	Good	42	67	25	17	0
N/A	Ciemins 2018	Usual Care	9 Months	353	Good	59	67	8	reference	reference

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BPC at Baseline, %	BPC at Follow-Up, %	Within Group Change from Baseline, %, p-value	Between Group Difference in Change from Baseline, %, p-value	Between Group Difference at Follow-up, %, p-value
N/A	Makutonin 2023	DHT + RPM	90 Days	13	Poor	NR	46.2	NR	NR	14.8 , 0.333
N/A	Makutonin 2023	Usual Care	90 Days	299	Poor	NR	31.4	NR	NR	reference
Non-comparative - C	ontrol Trial									
N/A	Taber 2018	DHT + RPM	6 Months	60	Good	50ª	68ª	18	NR	NR
N/A	Taber 2018	DHT + RPM	6 Months	19	Good	63ª	74ª	11	<mark>8</mark> , NR	NR
N/A	Taber 2018	DHT + RPM	6 Months	41	Good	44ª	66ª	22	reference	NR
Non-comparative - O	bservational									
Hello Heart	Gazit 2021	DHT only	12 Weeks	4714	Poor	NR	51.2	NR	N/A	N/A
Hello Heart	Gazit 2021	DHT only	26 Weeks	4714	Poor	NR	53.6	NR	N/A	N/A
Hello Heart	Gazit 2021	DHT only	52 Weeks	4714	Poor	NR	51.4	NR	N/A	N/A
Hello Heart	Gazit 2021	DHT only	104 Weeks	4714	Poor	NR	57.0	NR	N/A	N/A
Hello Heart	Gazit 2021	DHT only	12 Weeks	4464	Poor	NR	58.7	NR	N/A	N/A
Hello Heart	Gazit 2021	DHT only	26 Weeks	4464	Poor	NR	64.4	NR	N/A	N/A
Hello Heart	Gazit 2021	DHT only	52 Weeks	4464	Poor	NR	63.6	NR	N/A	N/A
Hello Heart	Gazit 2021	DHT only	104 Weeks	4464	Poor	NR	69.8	NR	N/A	N/A
Hello Heart	Kaplan 2017	DHT only	4 Weeks	187	Poor	0	57	<mark>57</mark> , <0.001	N/A	N/A
Hello Heart	Kaplan 2017	DHT only	16 Weeks	187	Poor	0	65	<mark>65</mark> , <0.001	N/A	N/A
Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BPC at Baseline, %	BPC at Follow-Up, %	Within Group Change from Baseline, %, p-value	Between Group Difference in Change from Baseline, %, p-value	Between Group Difference at Follow-up, %, p-value
---	-------------------------	---	-----------	-------	-----------------	-----------------------	------------------------	--	--	--
Hello Heart	Kaplan 2017	DHT only	22 Weeks	187	Poor	0	69	<mark>69</mark> , <0.001	N/A	N/A
Hello Heart	Paz 2024	DHT only	12 Weeks	11610	Poor	NR	58.7	NR	N/A	N/A
Hello Heart	Paz 2024	DHT only	1 Year	11610	Poor	NR	59.9	NR	N/A	N/A
Hello Heart	Paz 2024	DHT only	2 Years	11610	Poor	NR	61.3	NR	N/A	N/A
Hello Heart	Paz 2024	DHT only	12 Weeks	14055	Poor	NR	76.5	NR	N/A	N/A
Hello Heart	Paz 2024	DHT only	1 Year	14055	Poor	NR	79.8	NR	N/A	N/A
Hello Heart	Paz 2024	DHT only	2 Years	14055	Poor	NR	81.4	NR	N/A	N/A
Omada Health	Wilson- Anumudu 2022	DHT + RPM	3 Months	121	Poor	21.5	21.5	0, 1.00	N/A	N/A
Omada Health	Wu 2023	DHT + RPM	12 Months	788	Poor	23	37.4	14.4, NR	N/A	N/A
Ochsner Digital Medicine	Milani 2022	DHT + RPM (Complete sample; 0 barriers ^b)	12 Months	2117	Poor	0°	73°	73°, NR	N/A	NR, reference
Ochsner Digital Medicine	Milani 2022	DHT + RPM (Complete sample;1 barrier ^ь)	12 Months	841	Poor	0°	60°	60°, NR	N/A	NR, <0.001
Ochsner Digital Medicine	Milani 2022	DHT + RPM (Complete sample; 2-3 barriers ^b)	12 Months	347	Poor	0°	55°	55°, NR	N/A	NR, <0.001
Ochsner Digital Medicine	Milani 2022	DHT + RPM (Black; 0 barriers ^b)	12 Months	599	Poor	0°	67°	67°, NR	N/A	NR, reference
Ochsner Digital Medicine	Milani 2022	DHT + RPM (Black; 1 barrier ^b)	12 Months	314	Poor	0°	54°	54°, NR	N/A	NR, 0.044
Ochsner Digital Medicine	Milani 2022	DHT + RPM (Black; 2-3 barriers ^b)	12 Months	168	Poor	0°	54°	54°, NR	N/A	NR, 0.203
the second se	A			-				a second and a second		

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BPC at Baseline, %	BPC at Follow-Up, %	Within Group Change from Baseline, %, p-value	Between Group Difference in Change from Baseline, %, p-value	Between Group Difference at Follow-up, %, p-value
Ochsner Digital Medicine	Milani 2022	DHT + RPM (White; 0 barriers ^b)	12 Months	1476	Poor	0°	75°	75°, NR	N/A	NR, reference
Ochsner Digital Medicine	Milani 2022	DHT + RPM (White; 1 barrier ^b)	12 Months	502	Poor	0°	64°	64°, NR	N/A	NR, 0.011
Ochsner Digital Medicine	Milani 2022	DHT + RPM (White; 2-3 barriers ^b)	12 Months	172	Poor	0°	55°	55°, NR	N/A	NR, 0.002
Cabin Creek Health Systems	Durr 2023	DHT only	NR	NR	Good	14.1	NR	44.0, NR	N/A	N/A
Cabin Creek Health Systems	Durr 2023	DHT only	NR	220	Good	14.5	NR	44.1, NR	N/A	N/A
Cabin Creek Health Systems	Durr 2023	DHT only	NR	8	Good	12.5	NR	37.5, NR	N/A	N/A
Cabin Creek Health Systems	Durr 2023	DHT only	NR	230	Good	14.3	NR	44.0, NR	N/A	N/A
Cabin Creek Health Systems	Durr 2023	DHT only	NR	108	Good	12.0	NR	40.8, NR	N/A	N/A
Cabin Creek Health Systems	Durr 2023	DHT only	NR	126	Good	15.9	NR	46.8, NR	N/A	N/A
iHealth Unified Care	Wang 2022	DHT + RPM	1.5 Years	3364	NR	21.8	36.0	<mark>14.2</mark> , <0.001	N/A	N/A
LucidAct Health	Laffin 2021	DHT + RPM	12 Months	267	N/A	0	NR	NR	N/A	N/A
Mass General Brigham	Lee 2023	DHT + RPM	6 Months	512	Poor	NR	39.3	NR	N/A	N/A
Mass General Brigham	Lee 2023	DHT + RPM	6 Months	477	Poor	NR	47.8	NR	N/A	N/A
VitalSight (Omron Healthcare)	Ishak 2024	DHT + RPM	15 Months	29	Poor	0	31	31	N/A	N/A
VitalSight (Omron Healthcare)	Shane- McWhorter 2014	DHT + RPM	7 Months	96	Poor	47.9	62.5	14.6	N/A	N/A

Company	Study Articles	Study Arm	Timepoint	n	Risk of Bias	BPC at Baseline, %	BPC at Follow-Up, %	Within Group Change from Baseline, %, p-value	Between Group Difference in Change from Baseline, %, p-value	Between Group Difference at Follow-up, %, p-value
VitalSight (Omron Healthcare)	Shane- McWhorter 2014	DHT + RPM	7 Months	43	Poor	55.8	60.5	4.7	N/A	N/A
VitalSight (Omron Healthcare)	Shane- McWhorter 2014	DHT + RPM	7 Months	53	Poor	41.5	64.2	22.7	N/A	N/A
Palo Alto Medical Foundation	EMPOWER-H Lv 2017	DHT + RPM	6 Months	147	Poor	25.2	71.4	46.2, <0.001	N/A	N/A
N/A	Fisher 2019	DHT + RPM	6 Months	116	Poor	NR	91	NR	N/A	N/A
N/A	Singer 2023	DHT + RPM	12 Weeks	200	NR	46.0	66.0	20	N/A	N/A
N/A	Singer 2023	DHT + RPM	24 Weeks	200	NR	46.0	88.0	42	N/A	N/A

Notes. BPC = blood pressure control. DHT = digital health technology. ITT = intent to treat. N/A = Not applicable. NR = Not reported. O = observational. RCT = randomized control trial. RPM = remote patient monitoring. Red values are calculated values from other data provided in article (and do not have Standard Deviations or Confidence Intervals). Bold values indicate statistically significant values. ^aValues were extracted from a figure. ^bBarriers to healthcare are defined as financial strain, health literacy, and/or patient activation. ^cValues were estimated probabilities of BPC.

References

- ¹ Higgins, Julian P.T., Jelena Savović, Matthew J. Page et al., "Chapter 8: Assessing Risk of Bias in a Randomized Trial," in *Cochrane Handbook for Systematic Reviews of Interventions*, version 6.4, updated August 2023, <u>https://training.cochrane.org/handbook/current/chapter-08</u>.
- ² Wells, G.A., B. Shea, D. O'Connell et al., "The Newcastle-Ottawa Scale (NOS) for Assessing the Quality of Nonrandomised Studies in Meta-Analyses," Ottawa Hospital Research Institute, n.d., <u>https://www.ohri.ca/programs/clinical_epidemiology/oxford.asp.</u>
- ³ CMS Physician Fee Schedule, accessed September 2024. <u>https://www.cms.gov/medicare/physician-fee-</u> schedule/search?Y=0&T=4&HT=1&CT=3&H1=99473&H2=99474&M=5
- ⁴ Goff Jr., David C., Donald M. Lloyd-Jones, Glen Bennett, et al., "2013 ACC/AHA Guideline on the Assessment of Cardiovascular Risk: A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines," *Circulation* 129, no. 25 Suppl. 2 (2014): S49–S73. https://doi.org/10.1161/01.cir.0000437741.48606.98
- ⁵ American College of Cardiology. ASCVD Risk Estimator Plus. Accessed April 2024, <u>https://tools.acc.org/ascvd-risk-estimator-plus/#!/calculate/estimate/</u>
- ⁶ Mann, Cinday, and Adam Striar, "How Differences in Medicaid, Medicare, and Commercial Health Insurance Payment Rates Impact Access, Health Equity, and Cost," *To the Point* (blog), Commonwealth Fund, August 17, 2022. <u>https://www.commonwealthfund.org/blog/2022/how-differences-medicaid-medicare-and-commercial-health-insurance-payment-rates-impact</u>
- ⁷ Congressional Budget Office, "The Prices That Commercial Health Insurers and Medicare Pay for Hospitals' and Physicians' Services," January 2022. https://www.cbo.gov/publication/57778
- ⁸ Whelton PK, Carey RM, Mancia G, et al., "Harmonization of the American College of Cardiology/American Heart Association and European Society of Cardiology/European Society of Hypertension Blood Pressure/Hypertension Guidelines: Comparisons, Reflections, and Recommendations. *Circulation* 146, no. 11 (2022) 868–877. <u>https://doi.org/10.1161/CIRCULATIONAHA.121.054602</u>
- ⁹ Stierman, Bryan, Joseph Afful, Margaret D. Carroll, et al., "National Health and Nutrition Examination Survey 2017–March 2020 Prepandemic Data Files Development of Files and Prevalence Estimates for Selected Health Outcomes," no. 158 (2021). <u>https://doi.org/10.15620/cdc:106273</u>
- ¹⁰ US Census Bureau. Age and Sex Composition in the United States: 2022. Accessed September 2023, <u>https://www.census.gov/data/tables/2022/demo/age-and-sex/2022-age-sex-composition.html</u>
- ¹¹ Stierman "National Health and Nutrition Examination Survey."
- ¹² Springer, Mellanie V., Preeti Malani, Erica Solway, et al., "Prevalence and Frequency of Self-Measured Blood Pressure Monitoring in US Adults Aged 50–80 years," JAMA Network Open 5, no. 9 (2022): e2231772. https://doi.org/10.1001/jamanetworkopen.2022.31772
- ¹³ Federal Reserve Bank of St. Louis, "Consumer Price Index for All Urban Consumers: Medical Care in U.S. City Average," accessed November 1, 2023. <u>https://fred.stlouisfed.org/series/CUUS0000SAM</u>
- ¹⁴ Congressional Budget Office. "The Prices That Commercial Health Insurers and Medicare Pay."
- ¹⁵ Mann, Cinday, and Adam Striar, "How Differences in Medicaid, Medicare, and Commercial Health Insurance Payment Rates Impact Access, Health Equity, and Cost," To the Point (blog), Commonwealth Fund, August 17, 2022. <u>https://www.commonwealthfund.org/blog/2022/how-differences-medicaid-medicare-andcommercial-health-insurance-payment-rates-impact</u>
- ¹⁶ Congressional Budget Office. "The Prices That Commercial Health Insurers and Medicare Pay."
- ¹⁷ Mann, "How Differences in Medicaid."
- ¹⁸ MicroMedex. RedBook. May 2024.
- ¹⁹ Data.CMS, "Medicare Physician & Other Practitioners."
- ²⁰ CMS Physician Fee Schedule, accessed May 2024. https://www.cms.gov/medicare/physician-fee
 - schedule/search?Y=1&T=4&HT=1&CT=3&H1=99453&H2=99454&H3=99457&H4=99458&M=5
- ²¹ Livongo by Teladoc Health. "Get Started Livongo Health." Accessed August 16, 2024. <u>https://hello.livongo.com/WPCV?regcode=DART&ccid=WPCV</u>
- ²² Goff, "2013 ACC/AHA Guideline," S49–S73.

²³ Avalere Health, "Analysis of Medicare Advantage Enrollee Demographics, Utilization, Spending, and Quality Compared to Fee-for-Service Medicare Among Enrollees with Chronic Conditions," June 2023. <u>https://avalere.com/wp-content/uploads/2023/06/MA-FFS-Report.pdf</u> ²⁴ Stierman "National Health and Nutrition Evamination Sum avaitable Sum avaita

²⁴ Stierman "National Health and Nutrition Examination Survey."

²⁵ Margolis, Karen L., Stephen E. Asche, Steven P. Dehmer, et al., "Long-Term Outcomes of the Effects of Home Blood Pressure Telemonitoring and Pharmacist Management on Blood Pressure Among Adults with Uncontrolled Hypertension: Follow-up of a Cluster Randomized Clinical Trial," *JAMA Network Open* 1, no. 5 (2018): e181617. <u>https://doi.org/10.1001/jamanetworkopen.2018.1617</u>

²⁶ Petito, Lucia C., Lauren Anthony, Yaw Peprah, et al., "Blood Pressure Outcomes at 12 Months in Primary Care Patients Prescribed Remote Physiological Monitoring for Hypertension: A Prospective Cohort Study," *Journal of Human Hypertension* 37, no. 12 (2023): 1091–1097. <u>https://doi.org/10.1038/s41371-023-00850-w</u>

- ²⁷ Blood, Alexander J., Christopher P. Cannon, William J. Gordon, et al., "Results of a Remotely Delivered Hypertension and Lipid Program in More Than 10,000 Patients Across a Diverse Health Care Network," JAMA Cardiology 8, no. 1 (2023): 12–21. https://doi.org/10.1001/jamacardio.2022.4018
- ²⁸ Maciejewski, Matthew L., Hayden B. Bosworth, Maren K. Olsen, et al., "Do the Benefits of Participation in a Hypertension Self-Management Trial Persist After Patients Resume Usual Care?" Circulation: Cardiovascular Quality and Outcomes 7, no. 2 (2014): 269–275. https://doi.org/10.1161/circoutcomes.113.000309
- ²⁹ Stierman, Bryan, Joseph Afful, Margaret D. Carroll, et al., "National Health and Nutrition Examination Survey 2017–March 2020 Prepandemic Data Files Development of Files and Prevalence Estimates for Selected Health Outcomes," no. 158 (2021). https://doi.org/10.15620/cdc:106273
- ³⁰ Petito, "Blood Pressure Outcomes," 1091–1097.

³¹ Goff, "2013 ACC/AHA Guideline," S49-S73.

- ³² Margolis, "Long-Term Outcomes," e181617.
- ³³ Petito, "Blood Pressure Outcomes," 1091–1097.
- ³⁴ Blood, "Results of a Remotely Delivered Hypertension," 12–21.
- ³⁵ Maciejewski, "Do The Benefits of Participation," 269–275.
- ³⁶ Avalere Health, Analysis of Medicare Advantage."
- ³⁷ Margolis, "Long-Term Outcomes," e181617.
- ³⁸ Petito, "Blood Pressure Outcomes," 1091–1097.
- ³⁹ Blood, "Results of a Remotely Delivered Hypertension," 12–21.
- ⁴⁰ Maciejewski, "Do The Benefits of Participation," 269–275.
- ⁴¹ Stierman, "National Health and Nutrition."
- 42 Stierman, "National Health and Nutrition."
- ⁴³ Makutonin, Michael, Justin Dare, Mary Heekin, et al., "Remote Patient Monitoring for Hypertension: Feasibility and Outcomes of a Clinic-Based Pilot in a Minority Population," Journal of Primary Care & Community Health 14 (2023): 21501319231204586. https://doi.org/10.1177/21501319231204586
- ⁴⁴ Petito, Lucia C., Lauren Anthony, Yaw Amofa Peprah, et al., "Remote Physiologic Monitoring for Hypertension in Primary Care: A Prospective Pragmatic Pilot Study in Electronic Health Records Using Propensity Score Matching," JAMIA Open 6, no. 1 (2023): ooac111. https://doi.org/10.1093/jamiaopen/ooac111
- ⁴⁵ Persell, Stephen D., Lucia C. Petito, Lauren Anthony, et al., "Prospective Cohort Study of Remote Patient Monitoring with and Without Care Coordination for Hypertension in Primary Care," Applied Clinical Informatics 14, no. 3 (2023): 428–438, https://doi.org/10.1055/a-2057-7277

⁴⁶ Petito, "Blood Pressure Outcomes," 1091–1097.

⁴⁷ Maciejewski, "Do The Benefits of Participation," 269–275.

⁴⁸ Margolis, "Long-Term Outcomes," e181617.

- ⁴⁹ Blood, "Results of a Remotely Delivered Hypertension," 12–21.
- ⁵⁰ Milani, Richard V., Carl J. Lavie, Robert M. Bober, et al., "Improving Hypertension Control and Patient Engagement Using Digital Tools," *The American Journal of Medicine* 130, no. 1 (2017): 14–20.
- ⁵¹ Clark III, Donald, Julia Woods, Yunxi Zhang, et al., "Home Blood Pressure Telemonitoring with Remote Hypertension Management in a Rural and Low-Income Population," *Hypertension* 78, no. 6 (2021): 1927–1929. <u>https://doi.org/10.1161/hypertensionaha.121.18153</u>

⁵² Margolis, Karen L., Anna R. Bergdall, A. Lauren Crain, et al., "Comparing Pharmacist-Led Telehealth Care and Clinic-Based Care for Uncontrolled High Blood Pressure: The Hyperlink 3 Pragmatic Cluster-Randomized Trial," Hypertension 79, no. 12 (2022): 2708–2720. https://doi.org/10.1161/hypertensionaha.122.19816

⁵³ Buis, Lorraine R., Junhan Kim, Ananda Sen, et al., "The Effect of an mHealth Self-Monitoring Intervention (MI-BP) on Blood Pressure Among Black Individuals with Uncontrolled Hypertension: Randomized Controlled Trial," *JMIR mHealth and uHealth* 53, no. 12 (2024): e57863. <u>https://doi.org/10.1161/strokeaha.122.041020</u>

⁵⁴ Zha, Peijia, Rubab Qureshi, Sallie Porter, et al., "Utilizing a Mobile Health Intervention to Manage Hypertension in an Underserved Community," Western Journal of Nursing Research 42, no. 3 (2020): 201–209. <u>https://doi.org/10.1177/0193945919847937</u>

⁵⁵ Kim, Kim B., Hae-Ra Han, Boyun Huh, et al., "The Effect of a Community-Based Self-Help Multimodal Behavioral Intervention in Korean American Seniors with High Blood Pressure," *American Journal of Hypertension* 27, no. 9 (2014): 1199–1208. https://doi.org/10.1093/ajh/hpu041

⁵⁶ Pletcher, Mark J., Valy Fontil, Madelaine Faulkner Modrow, et al., "Effectiveness of Standard vs Enhanced Self-Measurement of Blood Pressure Paired with a Connected Smartphone Application: A Randomized Clinical Trial," JAMA Internal Medicine 182, no. 10 (2022): 1025–1034.

⁵⁷ Maciejewski, "Do The Benefits of Participation," 269–275.

⁵⁸ Abel, Willie M., Jimmy T. Efird, Patricia B. Crane, et al., "Use of Coaching and Technology to Improve Blood Pressure Control in Black Women with Hypertension: Pilot Randomized Controlled Trial Study," *The Journal of Clinical Hypertension* 25, no. 1 (2023): 95–105. https://doi.org/10.1111/jch.14617

⁵⁹ De Vries, Tamar Irene, Jan Westerink, Michiel L. Bots, et al., "Relationship Between Classic Vascular Risk Factors and Cumulative Recurrent Cardiovascular Event Burden in Patients with Clinically Manifest Vascular Disease: Results from the UCC-SMART Prospective Cohort Study," BMJ Open 11, no. 3 (2021): e038881. https://doi.org/10.1136/bmjopen-2020-038881

⁶⁰ Domanski, Michael J., Colin O. Wu, Xin Tian, et al., "Association of Incident Cardiovascular Disease with Time Course and Cumulative Exposure to Multiple Risk Factors," *Journal of the American College of Cardiology* 81, no. 12 (2023): 1151–1161. <u>https://doi.org/10.1016/j.jacc.2023.01.024</u>

⁶¹ Jørstad, Harald T., Ersen B. Colkesen, S. Matthijs Boekholdt, et al., "Estimated 10-year Cardiovascular Mortality Seriously Underestimates Overall Cardiovascular Risk," *Heart* 102, no. 1 (2016): 63–68. <u>https://doi.org/10.1136/heartjnl-2015-307668</u>

⁶² Mann, "How Differences in Medicaid."

- ⁶³ Congressional Budget Office. "The Prices That Commercial Health Insurers and Medicare Pay."
- ⁶⁴ Fox, Kathleen M., Li Wang, Shravanthi R. Gandra, et al., "Clinical and Economic Burden Associated with Cardiovascular Events Among Patients with Hyperlipidemia: A Retrospective Cohort Study," BMC Cardiovascular Disorders 16 (2016): 1–15. https://doi.org/10.1186/s12872-016-0190-x

⁶⁵ Fox, "Clinical and Economic Burden," 1–15.

⁶⁶ Fox, "Clinical and Economic Burden," 1–15.

⁶⁷ Martin, Seth S., Aaron W. Aday, Zaid I. Almarzooq, et al., "2024 Heart Disease and Stroke Statistics: A Report of US and Global Data from the American Heart Association," Circulation 149, no. 8 (2024): e347–e913. https://doi.org/10.1161/CIR.00000000001209

⁶⁸ Chatterjee, Paula, and Karen E. Joynt Maddox, "US National Trends in Mortality from Acute Myocardial Infarction and Heart Failure: Policy Success or Failure?" JAMA Cardiology 3, no. 4 (2018): 336–340. https://doi.org/10.1001/jamacardio.2018.0218

⁶⁹ Ramphul, Kamleshun, Yogeshwaree Ramphul, Shaheen Sombans, et al., "Incidence and Mortality Rates of Acute Ischemic Stroke in Hospitalized Patients in the United States," Archives of Medical Science-Atherosclerotic Diseases 6, no. 1 (2021): 132–134. https://doi.org/10.5114/amsad.2021.107820

⁷⁰ Chatterjee, "US National Trends," 336–340.

⁷¹ Bhatt, Deepak L., Andrew H. Briggs, Shelby D. Reed, et al., "Cost-Effectiveness of Alirocumab in Patients with Acute Coronary Syndromes: The ODYSSEY OUTCOMES Trial," Journal of the American College of Cardiology 75, no. 18 (2020): 2297–2308. <u>https://doi.org/10.1016/j.jacc.2020.03.029</u>

⁷² Petito, "Blood Pressure Outcomes," 1091–1097.

⁷³ Findings from internal company analysis shared with PHTI. Cited with permission.

⁷⁴ CMS Physician Fee Schedule, accessed May 2024. <u>https://www.cms.gov/medicare/physician-fee-</u>

schedule/search?Y=1&T=4&HT=1&CT=3&H1=99453&H2=99454&H3=99457&H4=99458&M=5

⁷⁵ Derington, Catherine G., Jordan B. King, Jennifer S. Herrick, et al., "Trends in Antihypertensive Medication Monotherapy and Combination Use Among US Adults, National Health and Nutrition Examination Survey 2005–2016," Hypertension 75, no. 4 (2020): 973–981. https://doi.org/10.1161/HYPERTENSIONAHA.119.14360

⁷⁶ Samanic, Claudine M., Kamil E. Barbour, Yong Liu, et al., "Prevalence of Self-Reported Hypertension and Antihypertensive Medication Use Among Adults - United States, 2017," Morbidity and Mortality Weekly Report 69, no. 14 (2020): 393–398. http://dx.doi.org/10.15585/mmwr.mm6914a1

 ⁷⁷ MicroMedex. RedBook. May 2024.
⁷⁸ Derington, "Trends in Antihypertensive Medication," 973–981.
⁷⁹ Derington, "Trends in Antihypertensive Medication," 973–981.