

CASE STUDY - MEDICAL DEVICE EMPLOYER

How one employer in the medical device industry lowered employee heart risk



Background

One of the largest global employers in the medical device industry sought to address employees' most prevalent chronic conditions in order to improve member health and reduce high healthcare costs. They analyzed claims for their approximately 50,000 U.S. employees and found that heart disease and high blood pressure were their top conditions. This assessment aligns with U.S. trends:

47% of adults have hypertension¹

79% of individuals with hypertension do not have the condition under control²

Beyond the negative health effects, the employer recognized that high blood pressure also had a high financial cost. A recent analysis by Validation Institute confirmed this conclusion, finding that the average total medical spending for individuals with hypertension is \$9,842.³

Solution

To address these issues, the employer selected Hello Heart. Hello Heart is the only digital therapeutics company to focus exclusively on heart health. Built by a team of clinicians, data scientists, and consumer software experts, Hello Heart's coaching app provides wellness tips that have been clinically shown in a peer-reviewed study published in a top-tier medical journal to lower blood pressure.⁴ Each participant receives a wireless blood pressure monitor and real-time, personalized digital coaching. Hello Heart's artificial intelligence and algorithms drive an individualized, unique experience for each person based on gender, comorbidities, age, geography, and user persona.

For their program with Hello Heart, the employer identified a target population of approximately 21,000 at-risk employees with blood pressure readings above 130/80 and/or a prescription for blood pressure medication.

Key Results During the Pandemic Based on Hello Heart Data⁶

84%

average engagement rate throughout the program⁵

82%

of participants starting in stage 2 hypertension reduced their heart risk using the app^{5,6,7,8}

20 mmHg

drop in systolic BP for participants starting in stage 2 hypertension using the app^{5,6,7}

126

members had an elevated blood pressure reading in the hypertensive crisis range and returned to a lower level⁵

Approach

The enrollment process was simple and effective, including personalized postcards with instructions on how to access the monitor and app, as well as other communications throughout the year. 19% of the employer's target population enrolled during the first year.⁵

Hello Heart's personalized and digital approach to coaching kept users engaged long term. 58% of the employer's members engaged with the app's daily insights and educational emails.⁵ Additionally, the employer's benefits team and Hello Heart collaborated to develop an incentive, providing wellness points to employees who actively engaged with the app. The points could be used to offset future health insurance premiums.

These efforts drove a high engagement rate, with an average of 84% of enrollees engaging with the app (i.e., tracking their blood pressure) each quarter.⁵

Results

Using the personalized coaching app's wellness tips focused on exercise, nutrition, and other lifestyle factors, 82% of participants starting in stage 2 hypertension reduced their blood pressure and lowered their heart risk after one year.^{5,6,7} On average, they dropped their systolic blood pressure by 20 mmHg.^{5,6} Additionally, 126 members had a blood pressure reading of 180/120 or greater (hypertensive crisis level) but then their blood pressure fell to a lower range.⁵



Risk Reduction: One study found that even a 10 mmHg reduction in systolic blood pressure reduced the risk of major cardiovascular disease events by **20%**, coronary heart disease by **17%**, stroke by **27%**, heart failure by **28%**, and all-cause mortality by **13%**.⁹

Furthermore, by selecting Hello Heart as their heart health solution, the employer potentially avoided significant medical costs. Validation Institute recently found that the Hello Heart program delivered a \$1,865 per participant reduction in year 1 total medical claims.¹⁰



ValidationInstitute

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¹ Facts About Hypertension. CDC Web site. <https://www.cdc.gov/bloodpressure/facts.htm>. Published September 27, 2021. Accessed May 17, 2022.

² Estimated Hypertension Prevalence, Treatment, and Control Among U.S. Adults. Million Hearts Web site. <https://millionhearts.hhs.gov/data-reports/hypertension-prevalence.html>. Published March 22, 2021. Accessed May 17, 2022.

³ Figure calculated as part of Validation Institute's analysis of Hello Heart cost savings. Source: Validation Institute. 2021 Validation Report (Valid Through October 2022). https://validationinstitute.com/wp-content/uploads/2021/10/Hello_Heart-Savings-2021-Final.pdf. Published October 2021. Accessed May 17, 2022. (This analysis was commissioned by Hello Heart, which provided a summary report of self-funded employer client medical claims data for 203 Hello Heart users and 200 non-users from 2017-2020. Findings have not been subjected to peer review.)

⁴ Gazit T, Gutman M, Beatty AL. Assessment of Hypertension Control Among Adults Participating in a Mobile Technology Blood Pressure Self-management Program. *JAMA Netw Open*. 2021;4(10):e2127008. <https://doi.org/10.1001/jamanetworkopen.2021.27008>. Accessed May 17, 2022. (Some study authors are employed by Hello Heart. Because of the observational nature of the study, causal conclusions cannot be made. See additional important study limitations in the publication.)

⁵ Based on data on file at Hello Heart. Results may vary from employer to employer.

⁶ Based on a comparison of users' average blood pressure level in their first week in the program compared to their most recent week. There were 168 participants with baseline blood pressure over 140/90 who had been enrolled in the program for one year and recorded blood pressure readings between weeks 48 and 55 of their time in the program.

⁷ Stage 2 hypertension is defined as blood pressure equal to or above 140/90.

⁸ Reduced heart risk is defined as a reduction in blood pressure.

⁹ Ettehad D, Emdin CA, Kiran A, Anderson SG, Callender T, Emberson J, et al. Blood pressure lowering for prevention of cardiovascular disease and death: a systematic review and meta-analysis. *Lancet*. 2016;387(10022):957-967. [https://doi.org/10.1016/S0140-6736\(15\)01225-8](https://doi.org/10.1016/S0140-6736(15)01225-8). Accessed May 17, 2022.

¹⁰ Validation Institute. 2021 Validation Report (Valid Through October 2022). https://validationinstitute.com/wp-content/uploads/2021/10/Hello_Heart-Savings-2021-Final.pdf. Published October 2021. Accessed May 17, 2022. (This analysis was commissioned by Hello Heart, which provided a summary report of self-funded employer client medical claims data for 203 Hello Heart users and 200 non-users from 2017-2020. Findings have not been subjected to peer review.)