



Health Enhancement Research Organization
Health, Performance, and Productivity Study Committee



***WEARABLES IN WELLNESS: EMPLOYER CASE STUDIES ON USE OF WEARABLE
TRACKING DEVICES IN WELLNESS PROGRAMS***

February 2017

Executive Summary

The Health Enhancement Research Organization (HERO) monitors emerging trends in the wellness field to identify best practice drivers of employee engagement, population health and well-being, and related financial and productivity outcomes. One of HERO's major areas of focus is how improvements in employee health and well-being correlate with higher levels of workplace performance and productivity. The use of wearable activity tracking devices (wearables) is one of many technology-driven approaches currently being used to promote employee health and well-being. In the Fall of 2014 HERO launched *The HERO Wearable Tracking Device Survey* to better understand how employers are incorporating wearables into their health and well-being (wellness) programs, as well as to identify gaps in the current evidence base and opportunities for further research and application.

The full report is available on the HERO [website](#), but some of the key findings include:

- **Employer Sponsorship of Trackers** - Nearly one half (46%) of employers responding to the survey offer or sponsor some type of wearable as part of a wellness program.
- **Subsidizing Trackers** - A significant majority (83%) of employers subsidize wearables and most employers (91%) permit an employee to use a device they already own.
- **Duration of Use** - Of initial users, 54% of employers report that more than half of their employees continue use of the device after six months.
- **Program Evaluation** – When asked about their program reporting efforts, the most common metrics monitored included number of participants (84%), total and average steps (66%), and participant satisfaction (57%).
- **End-User Perceptions** – When asked about end-user engagement and feedback, 53% of employers report high initial and sustained interest in wearable-supported programs, and most employers state they intend to keep using wearable devices due to favorable employee response.
- **Data Privacy Concerns** - 82% of employers report end-users do not raise any concerns regarding data privacy.

In summary, the survey findings indicate that both employers and employees have a strong and growing interest in using wearables to enhance wellness programs. The majority of companies currently offering wearables intend to continue doing so, and many additional companies plan on beginning to offer the devices in the future. These key findings make critical the need to better understand how employers are using wearables as part of a broader health and well-being program and what results are emerging as a result of their use.

Lacking research to guide employers on best practice approaches to incorporating wearables into their health and well-being initiatives, pioneering employers provide some of the best early evidence on the value of using wearables. A HERO case study workgroup formed to develop employer case studies following the development of the survey report.

To aid in the selection of case study companies, the workgroup first identified the aspects of employer use of wearables they wished to feature in the case studies. The three goals of the effort were to (1) showcase how employers are incorporating wearables into a broad, population-based health and well-being program; (2) identify strategies for long-term engagement of employees in health and well-being programs that incorporate wearables; and (3) demonstrate the value employers gain by using wearables. Based on these goals, the workgroup contacted a total of 37 companies that had responded to the HERO survey expressing interest in sharing their story, to share the process that would be used to develop the case studies. Based on the goals and process, eight companies agreed to participate in telephone interviews with workgroup members. Prior to the interviews, workgroup members developed an interview guide with discussion questions that could be used to ensure a consistent approach was used for the interviews. Each interview relied on a two-person team consisting of an interviewer and a note taker. After the interviews, workgroup members reviewed the notes and identified the employers that most strongly met the goals identified for the case studies. Notes from each of the 60-minute interviews were translated into a draft case study that was shared with the interview employers. An iterative process was used to incorporate employer feedback on the draft into subsequent versions until all parties were satisfied with the final version.

These case studies offer a handful of examples of how employers are using wearables as part of a broader health and well-being program. Moreover, they provide meaningful information on promising practices associated with sustained participation and use while the world waits for more research on the influence of wearable technology on long-term health outcomes. These promising practices could fuel future research on how to most effectively incorporate wearables into wellness programs.

These promising practices include:

- Extend wearables to spouses and domestic partners to increase employee participation rates and provide social support outside of the workplace.
- Pilot wearable-supported programs first to identify ways to improve program communications and design prior to launching across an entire enterprise.
- Incorporate culturally relevant incentives and tie them to wearable use and deeper levels of engagement. Consider different levels of incentives for varying levels of steps or activity.
- Incorporate wearables into a broader program that goes beyond a single challenge focused on physical activity. Leverage interest in wearables to engage individuals in other health and well-being programs.
- Provide ongoing enhancements to program design and engagement strategies, never allowing the program to feel stale. Keep programs relevant and fresh by responding to program evaluation data and employee feedback to continuously improve your approach.
- Develop goals and objectives for your program and leverage available wearables data to evaluate achievement of those goals.

The full case studies are provided in the remainder of this report.

Case Studies of Organizations Incorporating Wearables into Wellness Programs

The organizations below represent employers with comprehensive population-based health and well-being programs. While wearables play a featured role in physical activity-based programs, these organizations address many different aspects of employee health and well-being through a diverse menu of programs, environmental supports, policies, and resources. As such, the successes demonstrated by these case studies cannot be attributed to the use of wearables alone, but rather viewed as a demonstration of what can be achieved when they are incorporated into a comprehensive approach to supporting employee health and well-being.

BP

Company Overview

Employing about 14,000 people in the U.S., BP is one of America's largest producers of oil and natural gas as well as one of the top refiners in the country. The *BP Wellness Program* relies on a comprehensive approach, featuring many opportunities for individuals at any level of health to get involved through its broad array of health and financial well-being classes, biometric health screenings, coaching programs, and its onsite integrated health and medical center.

Health and Well-being Program Overview

The *BP Wellness Program* is a part of BP's medical plan, and represents a comprehensive approach that aims to support the health and well-being of the plan participants – both active and non-Medicare retirees – as well as their adult dependents. It was initially launched to more than 34,000 participants and non-Medicare retirees in 2010, then expanded in the following year to include covered spouses, increasing the total number of eligible individuals to 57,000. The program encourages participation through a points system, with a goal of accruing 1000 points per year. Program points can be earned by participating in activities such as getting an annual physical, completing web-based wellness classes, participating in financial wellness classes, and telephone and print-based health coaching programs, among others.

Embedding Wearables into a Broader Program

BP first incorporated wearables in 2013 with the launch of the *Million Step Challenge*. This voluntary program invited participants to receive a free Fitbit device and allow their steps to be tracked by a third-party wellness program provider's wellness dashboard. Once participants logged 1 million steps, they received 500 points towards the 1,000 needed to be eligible for a benefits-integrated incentive. Recognizing this goal might be too great a challenge for sedentary individuals, partial progress towards that goal was recognized. The program expanded the points awards in the second year so participants earned an additional 250 points for each additional million steps accrued, up to 1,000 points for logging three million steps. All individual information regarding the wearable devices remains with a third-party wellness provider and is not reported back to BP, except in aggregate form.

Engaging Participants to Use Wearables

BP uses a variety of strategies to engage participants in its wellness program throughout each calendar year including use of wellness champions, comprehensive communications, team challenges, and incentives.

The incentive strategy serves as one driver of sustained use of wearables. Achievement of 1,000 points is linked to BP's benefits-integrated incentive program and serves as a successful way to boost participation in specific programs or activities including wearable use. When BP first offered the *Million Step Challenge*, their wellness vendor observed that some individuals stopped logging steps once they reached their goal. To drive sustained behavior change, BP started to offer bonus challenges such as awarding extra bonus points when participants logged 15,000 steps in a single weekend.

Wellness program communications also emphasize the importance of paying attention to one's health and well-being all year long. Whether individuals are participating in the *Million Step Challenge*, a financial well-being course, a lifestyle management program, or retirement readiness coaching, communications encourage individuals to keep setting new goals to further optimize their health and well-being.

Over time, BP's comprehensive approach has shifted perspectives from a compliance orientation, focused on reaching the minimal goal of 1000 points to earn an incentive, to a

deeper intrinsic motivation to optimize one's health and well-being. At a wellness fair, BP asked individuals to share testimonials about how the wellness program had a positive influence on their life. Over 200 people voluntarily contributed their story. One employee reported being half way through his long morning commute and turned back towards his home to retrieve his wearable device when he realized it wasn't on his wrist. The program has also promoted more socializing about wellness during the day, with employees being more open about noting the need to get their annual physical scheduled before the end of the year, or a willingness to share healthy recipes with one another.

Evaluating Impact of Using Wearables

An average of 75% of incentive-eligible participants enroll in the *Million Step Challenge* each year and 79% complete the target goal. The *Million Step Challenge* boasts exceptional participant satisfaction rates, with 92% reporting being "satisfied" or "very satisfied" with the program. Based on extremely high participation rates and positive employee feedback, the *Million Step Challenge* has been offered every year since the initial launch in 2013, with ongoing enhancements to the program to sustain participant excitement and engagement.

A summary of BP's successes includes:

- 90% participation in the health questionnaire and achievement of 1,000 points among incentive-eligible employees, spouses, and non-Medicare retirees all six years the program has been offered.
- More than 28,000 benefit-eligible individuals completed an annual physical in 2015, and this level of participation has been sustained since 2013.
- More than 27,000 individuals enrolled in the *Million Step Challenge* (62% of eligible) in 2015 with over 21,000 achieving 1 million steps, 13,000 achieving 2 million steps, and 6,000 achieving 3 million steps.
- Individuals participating in the *Million Step Challenge* are more engaged than any other program participant group, earning more points across more days of the year. Participation remains steady all year around with expected peaks in participation at the start and end of the program year.

- Individuals who completed *Million Step Challenge* have lower levels of physical activity risk and demonstrate greater health improvements compared to non-participants.
- Since program inception in 2013, the overall health risk status of those who participated in the *Million Step Challenge* improved over 6%, and physical activity risk improved 17%.

Lessons Learned

BP's wellness program has garnered national recognition in the form of the platinum level National Business Group on Health Healthiest Employers Award in 2013 and 2016, and the coveted C. Everett Koop Award in 2014. And yet, BP continues to be attentive to feedback from employees through focus groups, piloting programs before launching across the enterprise, and incorporating feedback surveys into every major program. In fact, BP tested the concept of the wearables by initially introducing the *Million Step Challenge* to a limited pilot group of participants. The pilot program helped them refine the registration process, and communications, and other aspects of the program before its enterprise-wide launch. Each year they strive to improve their program to reduce barriers and ensure the program is easy, fun, and rewarding to participants.

Emory

Company Overview

Located in Atlanta, Georgia, Emory is the second-largest employer in the metro Atlanta area with more than 29,000 employees across Emory University (approximately 12,000 faculty and staff) and Emory Healthcare (17,000 employees). Emory University, a top-ranked private institution is recognized internationally for its outstanding liberal arts colleges, graduate and professional schools, and one of the world's leading health care systems.

Health and Well-being Program Overview

The *Healthy Emory* initiative began in 2013 with a vision to leverage Emory's expertise in research, health care, and higher education to create and sustain a culture of well-being that engages, inspires, and supports each individual to live healthy and flourish. Key stakeholders from Emory University and Emory Healthcare engaged in an eight-month strategic planning process informed by aggregate employee health assessment data, biometric screening data, healthcare claims and other relevant data sets. At the conclusion of this strategic planning process, three primary priority areas were identified: physical activity, nutrition, and stress management. A sampling of *Healthy Emory* programmatic offerings that are focused on the three primary health areas include walking groups, physical activity sessions, a six-week web-based nutrition challenge called *Colorful Choices*, and a 30-day *Refresh from Stress* program. Cultural and environmental supports include walking paths; nature trails; enhancements to the main campus tunnel system and signage to encourage walking; policies and practices that support employee health and well-being; and connecting employees with other resources available within Emory and within the community.

Embedding Wearables into a Broader Program

Since physical inactivity levels are high and employees have a high level of readiness to change that behavior, one of the initial *Healthy Emory* pilot programs incorporated wearables. In the fall of 2014, Emory offered wearables to 3,000 employees across five locations including two sites at Emory University and three sites at Emory Healthcare. Over 1,400 employees chose to participate in the pilot program called the *Move More*

Challenge. This program was an eight-week physical activity challenge, followed by six additional months of “watchful waiting” to evaluate longer term outcomes (e.g., average number of steps). Based on pilot data from an employee survey and wearables dashboard data showing significant increases in average daily activity, extremely positive employee feedback about the perceived value of the program and intent to continue using wearables after the pilot program ended, stakeholders were able to build a business case to expand the program to an enterprise level offering.

Wearables were introduced as part of an enterprise-wide *Move More Challenge* in the fall of 2015. The challenge was designed to incorporate a “fun factor” to reinvigorate employees’ interest and participation in *Healthy Emory* health promotion efforts. Similar to the initial pilot program, the evaluation period for the 2015 *Move More Challenge* was extended to six months following the end of the formal eight-week challenge.

Engaging Employees to Use Wearables

Healthy Emory relies on multiple strategies to maximize employee participation in the enterprise-wide physical activity challenge including comprehensive communications, wellness champions, leadership support, and modest incentives.

Communication Messages and Positioning – A strong communication plan was developed with positioning and messages created at the enterprise and unit levels. Communications conveyed a positive, inclusive message that the program was designed with the intent that anyone can participate and everyone can succeed. The challenge was structured primarily as a team-based program to encourage social support and to leverage positive peer-to-peer influence. Once individuals were registered for the program, weekly email messages were sent with reminders, encouragement, and connections to Emory’s health and wellness resources.

Wellness Champion Support – Wellness champions were involved at multiple levels in planning, implementation, and evaluation. They helped to facilitate and promote communications and active engagement in the *Move More Challenge*. Emory’s extensive wellness champion network was a vital part of the success of the program.

Leadership Support – Leaders were engaged through formal and informal networks across all levels of the organization to orient them to the program and encourage their active participation and support. Fostering leadership support continues to be an ongoing activity because leaders sometimes take on new roles across the organization, yielding new opportunities to invite them and encourage them to participate. Targeted email messages were sent to Emory leaders thanking them for their support and reminding them to actively encourage and support their colleagues to “move more.” Support and visible role modelling by leaders across Emory was another key success factor.

Incentives – Healthy Emory subsidized the cost of one wearable device for each employee and entered participants into a raffle for prizes after the fourth and the eighth week of the challenge. Prize eligibility was associated with the average number of steps (5,000 or 10,000) a participant achieved. For example, individuals with an average of 10,000 steps per day at the end of four weeks were placed in a raffle for an iPad mini and at the end of eight weeks they were eligible for a raffle for an Apple watch. Using the known importance of immediacy when it comes to rewarding behavior, the raffles were held within a few days of each program milestone period. There were enough incentives to raffle prizes to reach more than 10% of the participant group, so almost every building or unit had a couple of prize winners. Promotional messages highlighted prize winners to foster trust in the organization’s commitment to the program and to increase program visibility.

Evaluating Impact of Using Wearables

The 2015 *Move More Challenge* was offered to 29,388 eligible employees, and nearly met its goal of a 30% registration rate (with actual registration reaching 28%). Of those registered, 6,300 employees participated in the challenge, and 82% (5,200) of these remained active all eight weeks of the challenge. According to a post-program survey, 67% said this program was the first time they had used a wearable device, and 82% wore their device every day of the challenge.

Based on the 2014 pilot program, step goals were set for the percent of participants averaging 5,000 steps at the end of the 2015 challenge as well as at the three- and six-month post-

program milestones. Nearly all benchmark goals from the pilot were exceeded, as noted in the table below.

Percent of Employees Averaging 5,000+ Steps/Day

	Goals Based on 2014 Pilot	Actual 2015 Goal Achieved
After Eight Week Challenge	85%	89%
Three Months Post Program	45%	53%
Six months Post Program	33%	30%

In addition to these outcomes, Emory received very positive feedback from employees through the post-program survey:

- 87% of participants said they intend to become more physically activity within the next six months;
- 89% set a personal daily step goal;
- 97% would participate in another *Move More Challenge*; and
- 98% would recommend the *Move More Challenge* to other employees

Lessons Learned

Based on feedback from leaders, wellness champions, and employees, the *Healthy Emory* team recognized the need to continue to be intentional and thoughtful in supporting employees' physical activity and movement on and off company time. Many employees cannot or do not want to participate on company time because they have a long commute and staying after a scheduled work shift is not feasible. Alternatively, their assigned work duties as direct patient caregivers in critical care settings or in a call center may make it difficult to step away for an extended period of time during the work day. The *Healthy Emory* project team turned this challenge into an opportunity to promote physical activity before, during, and after the work day. The team identified resources for nutrition, physical activity, and stress management in all of the metropolitan areas where the majority of their employees reside and provided resource identification by county.

They also gathered feedback from employees that informed 2016 program improvements such as:

- Streamline the initial registration process;
- Consider subsidizing a wearable device for spouses and same-sex domestic partners;
- Provide additional support and training for wellness champions;
- Provide more in-person help sessions for employees who need assistance syncing their device; and
- Increase leadership visibility, support, and participation.

The physical activity challenge using wearables was one step in generating employee excitement, interest, and a positive experience in the *Healthy Emory* initiative, which continues to expand to address multiple areas of health and well-being.



Ochsner Health System

Company Overview

Ochsner Health System (Ochsner) is a not-for-profit health care provider based in southeast Louisiana, providing clinical and hospital care to Louisiana residents since 1942. With more than 17,000 employees and over 2,700 affiliated physicians, Ochsner is driven by a commitment to serve, heal, lead, educate, and innovate. Ochsner has made a major commitment to the health of their employees, and established their wellness program, *Pathway to Wellness*, to encourage healthy behaviors at the workplace. They realize that their employees need to be healthy to care for patients in their facilities.

Health and Well-being Program Overview

Ochsner's *Pathway to Wellness* program has evolved year after year as a way to achieve their primary goal of employee participation. At its inception, the program was a manual process tracked in a printed booklet, with activities consisting of annual preventive exams, participation in the company walking program, and seatbelt use. As participants completed tasks, they could earn monetary rewards. Operating a wellness program manually had many drawbacks: participants could lose their paper booklets, staff was unable to validate that tasks were completed, and enrollment was limited to a common date each year.

Embedding Wearables into a Broader Program

With the acquisition of hospitals in the area, and the growth in physical locations, Ochsner needed to move away from a paper-based program to an online program. In 2008, after partnering with a different third party wellness provider, the wellness program was moved from a manual to a web-based format. The purpose of transitioning the wellness program online was to offer the program to a higher percentage of participants and obtain objective validated measurements in the form of steps. With the transition to an electronic platform, wearable technology was also introduced.

Participation in the program was redefined to include enrollment in the online program, activation of the wearable device, and uploading data from their device a minimum of once

every 10 days. To ensure employees are engaged in a broad array of healthy lifestyle habits, new requirements were added in subsequent years to include regular weight and blood pressure checks at an onsite kiosk, completion of a health assessment survey, and other biometric measurements.

Engaging Employees to Use Wearables

In addition to leveraging employee interest in technology to bolster participation in *Pathway to Wellness*, incentives are a key strategy for encouraging employees to use wearables. Each participant is given their first wearable for free and is required to reach a defined number of steps in order to earn an incentive. Ochsner attributes the success they have seen in program participation in large part to the addition of wearable technology to their wellness program because it provides a daily reminder to stay physically active and ultimately stay engaged in the broader wellness program. The wearable device helps drive participants to the website to upload their steps, which creates the opportunity for participants to review program details and resources on the wellness program website. From the website, participants engage in the program by uploading their steps, tracking eating habits, participating in wellness challenges, completing an annual physical, donating blood, and engaging in many other activities.

Evaluating Impact of Using Wearables

In 2015, 84% of Ochsner's 11,000 eligible participants participated in *Pathway to Wellness*. Of the employees who participated in the program, 46% completed all program requirements to earn the wellness incentive. In addition, 62% of engaged employees met or exceeded the recommended levels of physical activity for good health as defined by the CDC.

In addition to tracking program participation metrics, Ochsner utilized a third party to analyze outcomes related to medical and prescription claims from 2012 through 2014. The analysis compared claims between two groups of people: Group A (those who enrolled in *Pathway to Wellness* and uploaded their wearable data), and Group B (those who did not enroll in the *Pathway to Wellness* program or log steps). During the initial comparison year (2012), Group A's health care costs were 2% higher than Group B's. Time over time analyses demonstrated that Group A had more dollars attributed to wellness/preventative care visits than Group B. The analysis also showed that Group A had lower combined claims (medical and prescription)

in 2013 (2.89%) and 2014 (9.66%) than Group B. Additionally, the analysis quantified value for Ochsner's wellness program, estimating a return of \$3.20 for every dollar spent. The third party analysts noted, however, that the calculations were not discounted to account for selection bias or other care management programs that may have been in place at Ochsner that might have also influenced this outcome.

Lessons Learned

Ochsner's primary recommendation when incorporating wearable devices into a wellness program is to give the first device to each participant for free. A cost to the participant provides a barrier to entry and results in reduced participation. With that, a wearable device, by itself, does not create a wellness program. Rather a wearable device is best used to complement a broader wellness program and if properly implemented, can foster engagement in your wellness program.

Conclusion

The survey findings and case studies shared in this report represent an initial step towards demonstrating the value of incorporating wearables into a broader employee health and well-being program. Future research is needed to better understand the best practices associated with effective use of wearables including sustained use of wearables, ongoing engagement in programs that focus on health behaviors other than physical activity, and outcomes related to health, performance, and productivity.

Contributors to this Report

This report is a product of the HERO Health, Performance, and Productivity (HPP) Study Committee, which was created to inform HERO members on the state of the evidence about the influence of all aspects of workforce health on performance at work. The committee charter is to document what is known about the HPP connection, identify the gaps in the current evidence base, and identify new opportunities for innovation and research. Case study interviews, interpretation of key findings, and development of this report was led by HERO staff and members of the HPP Study Committee. Contributors to the report are listed alphabetically below.

- Jack Bastable, CBIZ
- Lidia Nelkovski, Interactive Health
- Philip Swayze, HUB International
- Trent Tangen, HealthCheck360

HERO and HERO HPP workgroup members appreciate the following individuals and organizations for sharing their time and expertise to develop these case studies:

- Chris Phalen, BP
- Michael Stauffer, Emory University
- Dorothy Cain, Martin Montgomery, & Susan Piglia, Ochsner Health System



The **Health Enhancement Research Organization** (HERO) is a national non-profit dedicated to identifying and sharing best practices in the field of workplace health and well-being that improves the health and well-being of workers, their spouses, dependents and retirees. HERO was established over 20 years ago and is a member driven organization where learning opportunities and research are led by committees. HERO's work focuses on sharing best practices, advocating for improvements in the field, and providing practical solutions for employers who share HERO's commitment to health and well-being for employees, families and communities.

Health Enhancement Research Organization

info@hero-health.org | hero-health.org