Impact of a comprehensive population health management (PHM) program on health care costs
Analyzing the return on investment of comprehensive wellness programs

Employers offer population health management programs for a variety of reasons, but one of the main corporate goals continues to be financial impact, which is frequently measured by health care cost savings and a demonstrated return on investment (ROI) for the program.

The research team at StayWell partnered with Mangen Research Associates, British Petroleum (BP), and Mercer to rigorously examine the ROI from a comprehensive health management program in a recent study, titled “Impact of a comprehensive population health management program on health care costs.” The study was published in the June 2013 issue of the *Journal of Occupational & Environmental Medicine (JOEM)*.

This study is important because it demonstrates a significant health care cost impact after only two years of population health management program implementation. The research is also important because there are few well-designed studies that demonstrate an early ROI for health management programs. StayWell research has long examined the relationship between the use of population health management best practices and program results. Study findings herein lead to the conclusion that the BP Wellness program is a model for the level of commitment and the type of comprehensive, best practice programming needed to yield significant financial returns. This conclusion has been reinforced by industry organizations like the National Business Group on Health, which recognized the BP wellness program with a platinum level Best Employers for Healthy Lifestyles award in 2013.
Objectives & Methods

Objectives
This study was designed to compare health care cost trends of participants in behavior change programs with cost trends for a less engaged group who, at most, took a health assessment and/or completed a health advisor call (this group is referred to as “non-participants”).

Methods
The study examined data from StayWell client, British Petroleum (BP), one of the world’s largest energy companies with over 80,000 employees globally, including 23,000 in the United States. The population analyzed for this study included 29,642 U.S. employees, partners, and early retirees (individuals) who were eligible for the BP Wellness Program, the comprehensive population health management program offered by BP. Health care cost trends for participants were compared to cost trends of eligible non-participants. The analysis used statistical techniques to control for factors related to cost impact, such as age, gender, plan type, baseline health care claims, likelihood to use health services at baseline, and likelihood to participate in programs.

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29,642 PARTICIPANTS & COMPARING HEALTH CARE COST TRENDS OF PARTICIPANTS NON-PARTICIPANTS

The study relied on a “differences in differences” approach to estimate cost impact, which has been used extensively in the health promotion field as a rigorous alternative to randomized controlled trials. Separate analyses were conducted for the less intensive wellness programs and the more intensive condition management programs.
BP wellness program at a glance

BP’s Wellness Program is an excellent example of a comprehensive population health management program that adheres to best practices for wellness in the workplace. BP’s core program – supported by a strong culture of health – includes these elements:

**Population health management activities**
- Annual health assessment questionnaire
- Health information portal
- Personal health record
- “Health Advisor” calls (one-on-one calls with a StayWell health professional who reviews the individual’s HQ results and introduces them to other program opportunities)
- Onsite and interactive online wellness classes covering such topics as weight management, physical activity, nutrition, and stress

**Targeted programs**
- Physical activity campaigns
- Biometric health screenings
- Targeted lifestyle and disease management (both telephonic and in-person at the corporate campus)
- Case management
- 52-week intensive weight management program

**Physical environment**
- Local level programs
- Healthy options and nutrition information in cafeterias and vending machines
- Safe, assessable walking paths
- Subsidized fitness center membership
- Onsite fitness centers, classes, and walking programs
- Fitness/stretch breaks during meetings
- Bicycle racks and locker rooms on BP campuses
- Onsite health and wellness facilities that include primary and urgent care, pharmacy, physical therapy, dental and vision care

**Organizational support**
- Flexible work time policy to accommodate physical activity during the work day
- Benefits-integrated incentive design
- Cross-functional wellness council
- Strong leadership support
- Wellness champion network
- Onsite staff

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Key findings

Results from this study demonstrated that a comprehensive population health management program can produce a significant cost impact after only two years of program implementation. As noted in the published study, a key factor driving the positive cost savings included extremely high participation rates and significant and sustained health behavior change. Assessment of additional outcomes was not included in the financial impact study, but such outcomes were observed in other internal program evaluation studies. The need to augment financial impact evaluations with a more complete analysis of contributing variables has been noted in previous StayWell and Mercer research.¹

69 percent of eligible individuals participated in at least one BP Wellness Program component.

Of the evaluation participants, 58 percent participated in at least one behavior change program.

99 percent of participants completed a health assessment questionnaire.

70 percent of individuals eligible for condition management programs completed at least one condition management coaching call.

5.6 percent reduction in the average number of lifestyle-related health risks was demonstrated for all individuals who completed at least two health assessment surveys. This exceeded the best-performing program benchmark of 4.7 percent published in a previous StayWell study.

The combined impact of these participation and health improvement variables resulted in:

3.5 percent reduced overall health care spend for BP during the time frame observed for the financial impact study (cost trend was 3.5 percent below the projected trend of 10.5 percent).

$3 return in health care cost savings was estimated for each dollar invested in BP’s comprehensive population health management program.

¹ Grossmeier, Terry, Cipriotti, Burtaine. Best practices in evaluating worksite health promotion programs. American Journal of Health Promotion. 2010; 24(3):TAHP1-TAHP9

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What this means for employers

BP’s Wellness Program provides a model for the level and quality of programming required to produce savings within the first two years of program implementation. These study findings add to an accumulation of existing evidence on the potential for a truly comprehensive population health management program to produce a positive return on investment.

Although the findings are impressive, they represent only a portion of the potential value associated with such programs. Other studies\textsuperscript{2, 3, 4} have associated population health management programs with an impact on worker absence, worker’s compensation incidence and costs, and disability costs. Keep in mind, BP has a best-in-class health management program, and not all employers can expect to achieve this level of results. This study does, however, demonstrate what is possible if a comprehensive, best-practice approach is employed.

\textsuperscript{3} Grossmeier J, Terry PE, Cipriotti A, Burtaine JE. Best practices in evaluating worksite health promotion programs. American Journal of Health Promotion. 2010 Jan-Feb;24(3):TAHP 1-9, iii.
Thanks for reading.

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Data drives action and everything we do to affect our clients' bottom lines, and to deliver a healthier, more productive workforce.

To learn more about StayWell and to find more helpful resources, visit us at staywell.com.

To receive a copy of the full study, “Impact of a Comprehensive Population Health Management Program on Health Care Costs”, email information@staywell.com.