

Employers' Role in Cancer Prevention and Treatment—Developing Success Metrics for Use by the CEO Roundtable on Cancer

Rachel Henke, PhD,¹ Ron Z. Goetzel, PhD,^{2,3} Janice McHugh,⁴ Deborah Gorhan,⁵ Malinda Reynolds,¹ Jaclyn Davenport,¹ Kate Rasmussen,¹ and Fikry Isaac, MD⁶

Abstract

As evidence accumulates on the risk factors for cancer, it is becoming clearer that employers can play a significant role in the fight against the disease by creating a workplace conducive to lowering health risks. The CEO Roundtable on Cancer's *CEO Cancer Gold Standard* Program defines what companies can do to prevent cancer, detect it early, and ensure access to the best available treatments for those who are afflicted with the disease. This article describes how Johnson & Johnson incorporated the Cancer Gold Standard Program into its existing health promotion initiatives. Then, a framework is proposed that employers can use to monitor progress in cancer prevention and treatment enhancement efforts. Finally, health care eligibility, claims, and health risk assessment data are analyzed to quantify Johnson & Johnson's progress since implementation of the Cancer Gold Standard Program. Companies interested in initiating or furthering their health promotion efforts should consider joining groups such as the *CEO Cancer Gold Standard*. Collectively, companies have the ability to influence policy makers, payers, and the industry at large in changing behaviors and creating a culture of health and wellness in the fight against cancer. (*Population Health Management* 2013;16:xxx-xxx)

Introduction

JOHNSON & JOHNSON FIRST OFFERED its Live for Life worksite health promotion program in 1979 with the aim of making "Johnson & Johnson employees the healthiest in the world."¹ Since Live for Life was implemented, the company has become a leader in health promotion, sharing its experiences through publications¹⁻⁷ and encouraging other organizations to adopt similar programs.

In 2006, Johnson & Johnson began focusing on a specific condition important to their workers—cancer. Cancer is the second leading cause of death in the United States. The burden of cancer is experienced by individuals afflicted by the illness, their families, and society as a whole. The overall annual cost of cancer was estimated at over \$225 billion in 2007 with approximately \$100 billion spent on direct medical costs.⁸ During the same time frame, the cost of lost productivity related to premature death calculated as the present value of lifetime earnings totaled over \$125 billion.⁹

This article describes how Johnson & Johnson implemented initiatives within their existing comprehensive health promotion model to address cancer prevention and treatment. The monitoring framework created to quantify progress also is introduced. Finally, Johnson & Johnson's company data are presented using this framework.

A Worksite Program to Reduce the Burden of Cancer

Johnson & Johnson's efforts to target cancer are closely tied to the company's participation in the CEO Roundtable on Cancer's *CEO Cancer Gold Standard* Program.¹⁰ The *CEO Cancer Gold Standard* Program offers specific guidance on what companies can do to prevent cancer, detect it early, and ensure access to the best available treatments for patients. Companies participating in this program pledge to adopt the "5 Pillars" of best practices related to (1) Tobacco Use; (2) Nutrition; (3) Physical Activity; (4) Prevention, Screening, and Early Detection; and (5) Access to Quality Treatment

Truven Health Analytics, ¹Cambridge, Massachusetts and ²Washington, District of Columbia.

³Institute for Health and Productivity Studies, Rollins School of Public Health, Emory University, Atlanta, Georgia.

⁴Integrated Health Services, Johnson & Johnson, Southwest Ranches, Florida.

⁵Wellness & Health Promotion, Johnson & Johnson, Mansfield, Massachusetts.

⁶Global Health Services, and Wellness & Prevention Inc, Johnson & Johnson New Brunswick, New Jersey.

TABLE 1. THE 5 PILLARS OF THE CEO ROUNDTABLE ON CANCER'S *CEO CANCER GOLD STANDARD* PROGRAM

Pillar 1- Tobacco use	<ul style="list-style-type: none"> • Establish and enforce tobacco-free worksite policies • Ensure that health benefit plans include coverage at no cost
Pillar 2 - Diet and nutrition	<ul style="list-style-type: none"> • Establish workplace-based tobacco cessation initiatives
Pillar 3 - Physical activity	<ul style="list-style-type: none"> • Sustain a culture that supports healthy food choices • Provide access to nutrition/weight control programs
Pillar 4 - Prevention, screening, and early detection	<ul style="list-style-type: none"> • Sustain a culture that promotes physical activity • Demonstrate commitment to eliminating barriers to active lifestyles • Sustain a culture that promotes appropriate cancer screening behaviors • Ensure that health benefit plans include cancer-screening provisions that adhere to the American Cancer Society guidelines • Offer health benefit plans that eliminate cost as a barrier to accessing preventive/screening tests
Pillar 5 - Quality care	<ul style="list-style-type: none"> • Provide education about and promotion of cancer clinical trials • Offer health benefit plans that eliminate cost as a barrier to accessing cancer clinical trials • Ensure that health benefit plans provide access to cancer care at Commission on Cancer-approved and/or National Cancer Institute-approved cancer centers

These Pillars define best practices in promoting effective cancer prevention and treatment in the workplace.

and Clinical Trials. Table 1 provides the program requirements for each of the 5 Pillars.

Johnson & Johnson was among the first companies to receive accreditation from the CEO Roundtable's *Gold Standard* Program. Currently, 134 employers have been accredited by the *CEO Cancer Gold Standard* Program, covering more than 3 million lives.

Johnson & Johnson applied the *CEO Cancer Gold Standard* Program 5 Pillars to its current health and wellness program. Staff members found that adding the focus on cancer was straightforward because the health risks that are targeted for cancer prevention are the same as those that cause other costly conditions. These health risks include obesity, physical inactivity, poor nutrition/eating habits, and tobacco use. In the next section, Johnson & Johnson's overall approach to health promotion is described, followed by the key programs offered by Johnson & Johnson in each of the 5 Pillars.

Overall approach

Johnson & Johnson is a decentralized company that has centrally adopted policies supporting employees' efforts to reach their health goals. Each company within Johnson & Johnson implements programs locally and fosters the practice of adopting healthy habits through leadership support and a philosophy of leading by example. Global Health Services (GHS), the department within Johnson & Johnson that designs and implements the programs, builds and sustains relationships with executive leadership, safety, workplace design, operations, global learning, and human resources to ensure the integration of health practices within a culture of health.

Johnson & Johnson's focus on cancer includes the provision of programs, tools, and resources to encourage early detection, quality cancer treatment, and adoption of healthy lifestyle habits through healthy diet, physical activity, and personal energy management.

Pillar 1—Tobacco use

In 2007, Johnson & Johnson introduced a worldwide tobacco-free workplace policy. Although plans were already under way, the *CEO Cancer Gold Standard* Program require-

ments were a strong catalyst to drive the policy into action. Tobacco is now prohibited at all Johnson & Johnson owned or leased properties.

The tobacco-free workplace policy provided motivation for employees to quit tobacco. Resources were made available to employees ready to make the change. Employees and covered dependents were given access to free prescription medications supporting smoking cessation and over-the-counter nicotine replacement therapy; coverage for physician counseling; telephonic tobacco cessation coaching; access to employee assistance program counselors and online health coaching. The high percentage of nonsmoking employees has helped to establish a company norm of tobacco-free living.

Pillar 2—Nutrition

Influencing what, when, and how people eat can impact health and help prevent cancer. Johnson & Johnson offers a variety of healthy eating and weight management resources such as subsidized group weight management meetings, free digital health coaching with programs aimed at the physical and emotional dimensions of eating habits, and one-on-one consultation with wellness professionals, occupational health nurses, and employee assistance program professionals.

To further employees' efforts to make lasting changes, the company has created an environment where healthy eating is the norm. As a first step, healthy meals were labeled so employees could easily identify healthier options. Next, in the early 2000s, Johnson & Johnson embarked on changing cafeteria offerings to create an environment conducive to healthy eating that reinforces its culture of health. GHS partnered with the food service providers to increase the availability, visibility, and appeal of nutritionally dense whole foods so that making nutritious choices would be easier for all employees, not just those with an intention to improve their health. As a large multisite organization, it was difficult to suggest food changes and monitor progress. To achieve this, GHS collaborated with each of the café vendor providers and café contract leads. Today, the healthy food initiative, known as *eatcomplete*, is a part of all Johnson & Johnson cafeterias in the United States. Nutritionally-dense whole food, preparation,

placement, and promotion are built into all café vendor contracts as are key performance indicators.

Pillar 3—Physical activity

Being tobacco free and eating well in conjunction with physical activity can help prevent certain cancers and can serve as a coping strategy for those living with cancer. To encourage physical activity, Johnson & Johnson offers its employees pedometer programs, physical activity team challenges, fitness centers, exercise classes, personal training, exercise prescriptions, and access to wellness professionals.

The Million Step Challenge (MSC), an initiative wherein employees are challenged to walk 1 million steps in a year, has been a part of the Johnson & Johnson culture since 2005. MSC provides participants with tools to track their progress and set goals. Since it began, there has been a combined total participation of over 55,000 employees, with many employees returning each year. Almost 90% of respondents to a survey of MSC participants conducted by Johnson & Johnson reported that the pedometer was the primary program feature that helped them to complete their goal. Further, participants reported that MSC gave them more energy and helped them to lose weight, lower blood pressure and total cholesterol, feel less troubled by stress, and be more aware of sedentary days.

Johnson & Johnson's focus on physical activity goes beyond fitness and wellness programs. Some departments have adopted sit and stand work desks, walking workstations, and walk and talk meetings. GHS continues to develop and implement innovative ways to integrate movement into the culture within Johnson & Johnson, whether through education, marketing, or working with internal partners such as Workplace Solutions to ensure new or renovated buildings are designed with health in mind.

Pillar 4—Prevention, screening, and early detection

Detecting cancer early can lessen the long-term physical, mental, and emotional burden for employees and their families. Employees at Johnson & Johnson are reminded by their health plans to obtain age- and gender-appropriate cancer screenings. On-site GHS professionals reinforce these reminders through promotional campaigns. To reduce the barriers to screenings, Johnson & Johnson provides 100% coverage of preventive health screenings. American Cancer Society and US Preventive Services Task Force guidelines related to mammography, cervical cancer-pap test, and colorectal cancer-fecal occult blood test are encouraged and available without co-payment or coinsurance. Employees and covered spouses/partners ages 50 or older also can earn a monetary (\$250) incentive for completing a preventive colonoscopy.

In addition to offering a health plan benefit that encourages and facilitates appropriate cancer screenings, employees have direct access to cancer prevention information and services through GHS. GHS approaches early detection of cancer using a 3-tiered approach: increasing awareness (through educational materials and speakers), prescreening opportunities (administering on-site skin exams, self-exam instruction, and distributing fecal occult kits), and facilitated screenings (on-site mammograms, scheduling screening with community partners, and providing colonoscopy prep kits). The goal of this approach is to reduce employees' fear of screenings and scheduling barriers.

Pillar 5—Access to quality treatment and clinical trials

Employees and eligible dependents have access to cancer treatment at Commission on Cancer-accredited facilities¹¹ and/or National Cancer Institute-designated cancer centers with 100% coverage for participating in qualifying cancer clinical trials. Additionally, Johnson & Johnson educates employees on ways to access information about and participate in cancer clinical trials.

A Framework to Monitor Progress and Preliminary Outcomes

Johnson & Johnson recognizes that it is not enough to just implement a program and assume it works. For health promotion efforts to be most effective, outcomes must be monitored over time and results should drive improvements in the program. Johnson & Johnson developed a framework to monitor progress in cancer prevention, early detection, and quality of care that consists of a series of individual metrics that are measured over time.

The framework was developed as follows. First, process and outcome measures associated with each of the 5 Pillars were identified. Measures were limited to those that can be measured using readily available claims and health risk appraisal (HRA) data. Second, standardized specifications and definitions for each measure were determined to facilitate uniform replication. When possible, measure specifications were based on those already developed, tested, and endorsed by national organizations such as the National Quality Forum.¹² The resulting metrics that form this framework are listed with detailed specifications in Table 2.

To obtain a preliminary view of how Johnson & Johnson's efforts in cancer-focused health promotion have affected employee health and behaviors, the company's data were used to measure performance on each of the metrics for the period of 2004 to 2010. For measures drawing from medical claims and eligibility files, the study sample was restricted to active employees and their spouses enrolled in self-insured salaried and union plans in the United States (excluding Puerto Rico). For measures requiring HRA data, the sample excluded spouses and dependents because only employees were eligible to take the HRA prior to 2009.

When estimating measures that examine changes in behavior, the sample was limited to employees who completed the HRA during 2 sequential offerings and the result was attributed to the first year examined. Johnson & Johnson offered the HRA biennially to its employees between the years of 2004 and 2008, and annually thereafter. Thus, by design, behavior change measures could not be calculated for the last year of data collection.

Johnson & Johnson's performance on each of the measures from 2004 to 2010 is shown in Table 3. These trends provide a starting point for identifying program strengths and weaknesses. When available, Healthy People 2020 goals are provided as benchmarks for the company's performance.¹³

Johnson & Johnson experienced favorable trends in reducing tobacco use. Only 3% of employees were smokers in 2010 compared to 5% in 2004. However, the smoking cessation success rate declined over time. Johnson & Johnson also experienced a trend of improving diet and nutrition and

TABLE 2. DETAILED MEASURE SPECIFICATIONS FOR QUANTIFYING SUCCESS OF THE CEO ROUNDTABLE ON CANCER'S CEO CANCER GOLD STANDARD PROGRAM AT JOHNSON & JOHNSON

<i>Measure name</i>	<i>Numerator</i>	<i>Denominator</i>	<i>Data source</i>
<i>Pillar 1: Tobacco</i>			
<i>Smoking risk prevalence</i>	Number of HRA respondents identifying themselves as cigarette smokers	Number of HRA respondents	HRA
<i>Smoking cessation</i>	Number of HRA respondents who identified themselves as smokers who identified themselves as nonsmokers at the next HRA offering	Number of HRA respondents who identified themselves as smokers who completed the HRA at the next offering	HRA
<i>"Other" tobacco risk prevalence</i>	Number of HRA respondents identifying themselves as using other tobacco products	Number of HRA respondents	HRA
<i>"Other" tobacco cessation</i>	Number of HRA respondents who identified themselves as users of other tobacco products in Year 1 who subsequently identified themselves as nonusers of other tobacco products at the next HRA offering	The number of HRA respondents who identified themselves as other tobacco users who completed the HRA at the next offering	HRA
<i>Pillar 2: Diet and nutrition</i>			
<i>Obesity risk prevalence</i>	Number of HRA respondents with a BMI greater than or equal to 30	Total number of HRA respondents	HRA
<i>Success rate for becoming nonobese</i>	Number of HRA respondents with a BMI of greater than or equal to 30 in Year 1 who subsequently identified themselves as having a BMI less than 30 at the next HRA offering	The number of HRA Year 1 obese respondents who completed the HRA at the next offering	HRA
<i>Risk prevalence for fruit and vegetable consumption</i>	Number of HRA respondents identifying themselves as having consumed fewer than 5 fruits or vegetables daily	Total number of HRA respondents	HRA
<i>Success rate for increasing fruit and vegetable consumption</i>	Number of HRA respondents who identified themselves as having consumed fewer than 5 fruits or vegetables daily in Year 1 who subsequently identified themselves as having consumed 5 or more fruits or vegetables at the next HRA offering	The number of HRA Year 1 respondents identifying themselves as having consumed fewer than 5 fruits or vegetables daily who completed the HRA at the next offering	HRA
<i>Risk prevalence for fatty food consumption</i>	Number of HRA respondents who identified themselves as having consumed 3 or more weekly servings of fatty food	Total number of HRA respondents	HRA
<i>Success rate for decreasing fatty food consumption</i>	Number of HRA respondents who identified themselves as having consumed more than 3 weekly servings of fatty food in Year 1 who subsequently identified themselves as having consumed fewer than 3 weekly servings of fatty food at the next HRA offering	The number of HRA Year 1 respondents who identified themselves as having consumed more than 3 weekly servings of fatty food who completed the HRA at the next offering	HRA
<i>Pillar 3: Physical activity</i>			
<i>Sedentary risk prevalence—Lack of moderate activity</i>	Number of HRA respondents reporting 1 day per week or less of moderate physical activity	Total number of HRA respondents	HRA

(continued)

TABLE 2. (CONTINUED)

<i>Measure name</i>	<i>Numerator</i>	<i>Denominator</i>	<i>Data source</i>
<i>Success rate for becoming nonsedentary — Increase in moderate activity</i>	Number of HRA respondents reporting 1 day per week or less of moderate physical activity in Year 1 who subsequently identified themselves as having increased their moderate physical activity to more than 1 day per week at the next HRA offering	The number of HRA Year 1 sedentary respondents who completed the HRA at the next offering	HRA
<i>Sedentary risk prevalence—Lack of vigorous activity</i>	Number of HRA respondents reporting no vigorous physical activity	Total number of HRA respondents	HRA
<i>Success rate for becoming nonsedentary— Increase in vigorous activity</i>	Number of HRA respondents reporting no vigorous physical activity in Year 1 who subsequently identified themselves as having increased their vigorous physical activity to at least 1 day per week at the next HRA offering	The number of HRA Year 1 sedentary respondents who completed the HRA at the next offering	HRA
<i>Less than optimal physical activity risk prevalence—Moderate activity</i>	Number of HRA respondents reporting 3 days per week or less of moderate physical activity	Total number of HRA respondents	HRA
<i>Success rate for uptake in optimal physical activity—Moderate activity</i>	Number of HRA respondents reporting 3 days per week or less of moderate physical activity in Year 1 who subsequently identified themselves as having increased their moderate physical activity to more than 3 days per week at the next HRA offering	The number of HRA Year 1 participants with less than optimal physical activity who completed the HRA at the next offering	HRA
<i>Less than optimal physical activity risk prevalence—Vigorous activity</i>	Number of HRA respondents reporting 2 days per week or less of vigorous physical activity	Total number of HRA respondents	HRA
<i>Success rate for uptake in optimal physical activity—Vigorous activity</i>	Number of HRA respondents reporting 2 days per week or less of vigorous physical activity in Year 1 who subsequently identified themselves as having increased their vigorous physical activity to more than 2 days per week at the next HRA offering	The number of HRA Year 1 participants with less than optimal physical activity who completed the HRA at the next offering	HRA
<i>Pillar 4: Screening rates and early detection</i>			
<i>Breast cancer screening rate</i>	The number of female health plan members, aged 42 to 69 years at the end of the measurement year, who had a mammogram done during the measurement year or the year prior [Sources: NQF 2007 (endorser); NCQA (owner)]	The number of female health plan members, aged 42 to 69 years at the end of the measurement year Excludes women who had a bilateral mastectomy or 2 unilateral mastectomies on different service dates any time prior to or during the measurement year based on claims	Health plan eligibility and claims files

(continued)

TABLE 2. (CONTINUED)

<i>Measure name</i>	<i>Numerator</i>	<i>Denominator</i>	<i>Data source</i>
<i>Colorectal cancer screening rate</i>	The number of health plan members who had an appropriate screening for colorectal cancer (a fecal occult blood test during the measurement year, a flexible sigmoidoscopy in the measurement year or the previous 4 years, a double contrast barium enema in the measurement year or the previous 4 years, or a colonoscopy in the measurement year or the previous 9 years—limited to claims included in the database) [Sources: NQF 2007 (endorser); NCQA (owner)]	The number of health plan members aged 51 to 80 years at the end of the measurement year Excludes people who had a total colectomy or a diagnosis of colorectal cancer any time prior to or during the measurement year based on claims	Health plan eligibility and claims files
<i>Cervical cancer screening rate</i>	The number of female health plan members, aged 24 to 64 years at the end of the measurement year, who had a pap test done in the measurement year or the previous 2 years [Sources: NQF 2007 (endorser); NCQA (owner)]	The number of female members, aged 24 to 64 years at the end of the measurement year Excludes women who had a hysterectomy with no residual cervix any time prior to or during the measurement year based on claims	Health plan eligibility and claims files
<i>Rate of early detection for breast cancer</i>	Number of members diagnosed with early stage breast cancer during the given year Early stage was defined as: Members with primary or secondary diagnosis code of 174.0-174.9 or 233.0 during year who did <i>not</i> have a primary or secondary diagnosis code of 196.0-196.2, 196.4-196.9, 197.0-197.8, or 198.0-198.89 during year Cancer patients were considered newly diagnosed in a calendar year if they had a cancer diagnosis in the given calendar year and were continuously enrolled in a self-insured plan for the entire prior calendar year without a diagnosis for the specified cancer	Number of members diagnosed with breast cancer at any stage during the given year Identification of cancer patients: Members with primary or secondary diagnosis code of 174.0-174.9 or 233.0 during year	Health plan eligibility and claims files
<i>Rate of early detection for cervical cancer</i>	Number of members diagnosed with early stage cervical cancer during the given year Early stage was defined as: Members with a primary or secondary diagnosis code of 180.0-180.9 or 233.1 or 622.12 during year who did <i>not</i> have a primary or secondary diagnosis code of 196.0-196.9, 197.0-197.8, 198.0-198.89 during year Cancer patients were considered newly diagnosed in a calendar year if they had a cancer diagnosis in the given calendar year and were continuously enrolled in a self-insured plan for the entire prior calendar year without a diagnosis for the specified cancer	Number of members diagnosed with cervical cancer at any stage during the given year Identification of cancer patients: Members with a primary or secondary diagnosis code of 180.0-180.9 or 233.1 or 622.12 during year	Health plan eligibility and claims files

(continued)

TABLE 2. (CONTINUED)

<i>Measure name</i>	<i>Numerator</i>	<i>Denominator</i>	<i>Data source</i>
<i>Rate of early detection for colon cancer</i>	Number of members diagnosed with early stage colon cancer during the given year Early stage was defined as: Members with a primary or secondary diagnosis code of 153.0-153.9 or 230.3 during year who did <i>not</i> have a primary or secondary diagnosis code of 196.0-196.1, 196.3-196.9, 197.0-197.8, 198.0-198.89 during year Cancer patients were considered newly diagnosed in a calendar year if they had a cancer diagnosis in the given calendar year and were continuously enrolled in a self-insured plan for the entire prior calendar year without a diagnosis for the specified cancer	Number of members diagnosed with colon cancer at any stage during the given year Identification of cancer patients: Members with a primary or secondary diagnosis code of 153.0-153.9 or 230.3 during year	Health plan eligibility and claims files
<i>Pillar 5: Quality of care</i>			
<i>Clinical trial participation</i>	Number of cancer clinical trial participants	Number of all cancer patients	Health plan eligibility and claims files linked with data on clinical trial participation from health plans
<i>Rate of high-quality cancer center utilization, breast cancer</i>	Number of breast cancer patients utilizing at least 1 high-quality cancer center during the given year Cancer centers were identified as high quality if they were National Cancer Institute designated cancer centers or accredited by the Commission on Cancer	Total number of breast cancer patients during that year	Health plan eligibility and claims files
<i>Rate of high-quality cancer center utilization, cervical cancer</i>	Number of cervical cancer patients utilizing at least 1 high-quality cancer center during the given year Cancer centers were identified as high quality if they were National Cancer Institute designated cancer centers or accredited by the Commission on Cancer	Total number of cervical cancer patients during that year	Health plan eligibility and claims files
<i>Rate of high-quality cancer center utilization, colon cancer</i>	Number of colon cancer patients utilizing at least 1 high-quality cancer center during the given year Cancer centers were identified as high quality if they were National Cancer Institute designated cancer centers or accredited by the Commission on Cancer	Total number of colon cancer patients during that year	Health plan eligibility and claims files

BMI, body mass index; HRA, health risk assessment; NCQA, National Committee for Quality Assurance; NQF, National Quality Forum.

maintained an obesity rate well below the Healthy People 2020 goal of 31% throughout the time frame examined. There was also a favorable colorectal cancer screening trend with the rate of appropriate screenings increasing 15 percentage points from 2006 to 2010.

Despite strong efforts to encourage physical activity, only minimal progress in areas related to physical activity was observed. The percentage of employees with age- and gen-

der-appropriate breast and cervical cancer screenings also remained constant over time.

Johnson & Johnson uses information from the monitoring framework to identify ways to enhance current programs and services, integrating the 5 Pillars into new program designs. Lack of movement on key metrics can be linked to some of the challenges experienced when implementing programs and pursuing a culture of health.

TABLE 3. JOHNSON & JOHNSON TRENDS ON GOLD STANDARD FRAMEWORK MEASURES BETWEEN 2004–2010, AS COMPARED TO HEALTHY PEOPLE 2020 BENCHMARKS

Outcome-Related Metrics	Johnson & Johnson Results										Healthy People 2020	
	2004	2005	2006	2007	2008	2009	2010	Baseline	Goal			
Smoking Prevalence	5.2%	4.8%	3.9%	3.4%	3.4%	3.2%	3.2%	21.0%	12.0%			
Smoking Cessation Success Rate	37.0%	45.8%	35.8%	34.8%	19.6%	18.4%	NA	6.0%	8.0%			
“Other Tobacco” Use Prevalence	2.1%	2.0%	0.9%	1.0%	1.0%	0.9%	0.9%	2.2% cigar 2.3% snuff	0.2% cigar 0.3% snuff			
“Other Tobacco” Cessation Success Rate	91.1%	89.9%	60.0%	67.8%	59.3%	58.0%	NA	NA	NA			
Obesity Prevalence	17.3%	18.4%	18.4%	19.2%	20.9%	20.2%	20.8%	34.0%	31.0%			
Success Rate for Becoming Nonobese	15.1%	16.0%	13.0%	15.1%	13.5%	12.1%	NA	NA	NA			
Risk Prevalence for Fruit and Vegetable Consumption	71.8%	70.3%	65.3%	63.9%	63.0%	60.0%	57.1%	NA	NA			
Success Rate for Increasing Fruit and Vegetable Consumption	25.4%	27.6%	22.4%	23.5%	22.5%	22.3%	NA	NA	NA			
Risk Prevalence for Fatty Food Consumption	NA	NA	44.5%	42.3%	41.2%	39.1%	36.8%	NA	NA			
Success Rate for Decreasing Fatty Food Consumption	NA	NA	35.6%	37.7%	35.9%	36.5%	NA	NA	NA			
Sedentary Prevalence (Lack of Moderate Activity)	NA	NA	16.6%	17.7%	16.6%	14.3%	14.5%	36.0%	32.6%			
Success Rate for Becoming Non-Sedentary	NA	NA	65.4%	67.5%	61.1%	60.2%	NA	NA	NA			
Prevalence of Less than Optimal Physical Activity (Moderate Activity)	NA	NA	56.6%	58.1%	58.6%	57.4%	58.2%	NA	NA			
Success Rate for Achieving Optimal Physical Activity (Moderate Activity)	NA	NA	31.4%	29.5%	28.7%	26.4%	NA	NA	NA			
Cancer Screening Rate: Breast Cancer	NA	NA	71.9%	73.2%	74.4%	74.2%	72.5%	73.7%	81.1%			
Cancer Screening Rate: Cervical Cancer	NA	NA	82.2%	83.1%	82.9%	83.2%	83.0%	84.5%	93.0%			
Cancer Screening Rate: Colorectal Cancer	NA	NA	43.0%	49.2%	53.0%	57.0%	59.6%	54.2%	70.5%			
Early Detection: Breast Cancer	NA	NA	95.0%	97.0%	98.0%	89.0%	91.0%	NA	NA			
Early Detection: Cervical Cancer	NA	NA	100.0%	99.0%	98.0%	98.0%	98.0%	NA	NA			
Early Detection: Colon Cancer	NA	NA	80.0%	86.0%	91.0%	81.0%	86.0%	NA	NA			
Clinical Trial Participation	0.0%	0.0%	0.0%	0.1%	0.2%	0.2%	0.3%	NA	NA			
Use of High-Quality Cancer Centers: Breast Cancer	NA	NA	48.0%	48.0%	54.0%	48.0%	47.0%	NA	NA			
Use of High-Quality Cancer Centers: Cervical Cancer	NA	NA	38.0%	41.0%	39.0%	34.0%	41.0%	NA	NA			
Use of High-Quality Cancer Centers: Colon Cancer	NA	NA	22.0%	29.0%	28.0%	30.0%	33.0%	NA	NA			

Challenges and Opportunities

Johnson & Johnson has identified several barriers to successful health promotion. One challenge is how to communicate health information in an environment in which employees have many messages competing for their attention and their primary focus is their work. The company has found that creativity in how, when, and where communication takes place can bolster program participation. One approach Johnson & Johnson uses is to meet people where they are and take the message to them. For example, Johnson & Johnson schedules awareness tables during shift changes or during breaks in high-traffic areas such as cafeteria and site entrances. The company promotes events through sticker advertisements on fruit given away at the entrance of the buildings. Testimonials to motivate employee self-efficacy in behavior change are posted in the fitness centers and health clinics, and on intranet sites, newsletters, and bulletin boards. The company also distributes a monthly Global Health Newsletter—the most read location of the newsletter is in the bathroom, where a condensed 1-page version is posted in a Plexiglas frame in each stall. In addition, creating a culture of health, using existing communication channels, identifying health champions, and leveraging word of mouth also have enhanced participation.

Another challenge experienced by Johnson & Johnson is how to ensure that the culture of health is embraced by middle managers. Support from middle managers is essential for program participation and good outcomes. Although top leadership has continually understood and embraced the philosophy that good health is good business, middle managers may be unaware of their influence within the organization and their impact on employees' behaviors and choices. To address this challenge, Johnson & Johnson continually reinforces the message that good health is good business at all levels of management. For example, internal publications such as the *J & J Healthy Future 2015 Sustainability Goals* describe health as an important component of a successful business strategy and an outcome that leadership is measured against. Also, the company's Credo survey includes questions that measure the employee's perception of organizational support for their personal well-being. At the very top of the organization, the CEO models healthy behaviors and speaks to personal health as a foundation for conducting business. This constant reinforcement of the importance of a healthy lifestyle encourages employees adopt healthy behaviors and model it for others.

A final notable challenge to health promotion identified by Johnson & Johnson is that competing priorities in business and personal lives can relegate personal health habits to the back seat. The company has found that, if leaders, individuals, and the written and unwritten environment of the organization commit to and embrace the value of healthy habits, this belief will transcend throughout the workplace. Shifting the beliefs, values, and norms of management and the individual employee toward a health mind-set can help healthy behaviors take a front seat. The principles of energy management, which espouse that taking care of one's physical, mental, emotional, and spiritual dimensions leads to improved personal and professional performance, are part of employee training at all levels of the organization. Johnson & Johnson also offers flexible work-from-home arrangements and time off for volunteer-

ing to help employees achieve balance with the people and causes that matter most to them.

Moving Forward

Johnson & Johnson will continue to implement programs to reduce the burden of cancer as well as other chronic conditions prevalent in the workforce. The company aims to create more ways to engage employees in taking care of their health, reduce barriers, collaborate with community resources, and weave health habits into the operating culture of the organization.

Other companies can use Johnson & Johnson's experience as an example of how to address cancer through their own programs. They also can adopt the monitoring framework to track their own progress and use Johnson & Johnson's results as a benchmark.

For health promotion efforts to be most efficient, companies should come together to agree to a standardized framework such as the one described in this paper to monitor collective progress. They could then identify an organization to host a shared measurement system for the group. This organization would be charged with aggregating data across companies to develop benchmarks and calculate trends. If companies contribute their data to this shared measurement system, all companies will benefit from a more robust measurement of progress in achieving outcomes and from industry-specific benchmarks. The framework could focus on specific conditions or include broader benchmarks of performance related to employee health risks—for example, cholesterol, blood pressure, stress, and depression. Benchmarks can help companies understand what degree of change to expect and to identify weaknesses in their own programs. Companies that have not yet adopted programs can learn from best practices and challenges. They also can use other companies' benchmarks to support initial investment proposals for their programs. Once a collection of benchmarks is available, the data and framework can more robustly identify company-specific versus temporal trends.

Companies interested in initiating or furthering their health promotion programs should consider joining groups such as the *CEO Cancer Gold Standard*, or starting their own groups. Collectively, companies have the ability to influence policy makers, payers, and the industry at large to create a widely adopted culture of health and wellness in the fight against cancer.

Acknowledgment

The opinions expressed are the authors' and do not necessarily represent the opinions of Truven Health Analytics, Emory University, or Johnson & Johnson.

Disclosure Statement

Drs. Henke, Goetzel, and Isaac, Ms. McHugh, Ms. Gorhan, Ms. Reynolds, Ms. Davenport, and Ms. Rasmussen declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article. The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Johnson & Johnson funded the preparation of this article.

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Address correspondence to:

Ron Z. Goetzel, PhD

Institute for Health and Productivity Studies

Rollins School of Public Health

Emory University

and

Truven Health Analytics

4301 Connecticut Ave., NW, Suite #330

Washington, DC 20008

E-mail: ron.goetzel@truvenhealth.com