



## THE HEALTH PROJECT

### APPLICATION FOR THE 2020 C. EVERETT KOOP NATIONAL HEALTH AWARDS

Documenting Excellence in Health Promotion and Value on Investment

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Vendors:	Aetna, Active Health Management, Johns Hopkins Health Solutions, PWN Health, Omada Health, Optum, Quest Population Health Solutions, HDMS, Teladoc, GrandRounds, RxSavings
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## Section I. Executive Summary of Program and Evaluation Highlights

Quest Diagnostics empowers better health with diagnostic insights. As the world's largest provider of diagnostic services, our diagnostic insights reveal avenues to identify and treat disease, inspire healthy behaviors and improve healthcare management. We are committed to building a healthier world – a commitment that starts at home with our own colleagues and their families. Now in its 15th year, our award-winning health and well-being program, HealthyQuest, equips our nearly 47,000 employees and their families with best-in-class tools and resources to improve their health and save money under the banner of “Health in Your Hands.” Rising healthcare costs challenged us to fine-tune our population health strategy with the goal of long-term sustainability by implementing the Institute for Healthcare Improvement's “Triple Aim” strategy to (1) improve the experience of care, (2) improve the health of populations, and (3) reduce per capita costs of health care- a strategy that lead to measurable health outcomes and was celebrated with the *Empowering Better Health Award* for embodying the Quest vision of fostering a healthier world. The approach and outcomes have been published in peer reviewed publications and presented externally in high profile health forums by company leaders.

As part of this strategy, we further developed HealthyQuest based on baseline HERO scorecard assessment to enrich our culture of health, support making healthy the easy choice and foster the creation of an inspiring workplace. We also built-out our care pathways with targeted interventions for participants of our world-class Blueprint for Wellness health-screening program to provide complimentary physician sessions and health improvement program opportunities to deliver higher value; partnered with industry leaders to implement novel population-health solutions; and introduced a cutting-edge approach to proactive mental health in partnership with medical academic leader, Johns Hopkins. Focused health improvement components are all integrated into our overall organizational culture that promotes health and well-being.

Through our commitment to building a healthier world for our colleagues, we delivered value to the health plan by improving health and bending the cost trend. Cumulatively, we saved an estimated \$40M over 4 years in healthcare costs, achieved measurable improvements in health (reduced diabetes and cardiovascular risk), and maintained positive member experience (>80% satisfaction). As a result, were able to keep employee contributions to medical care flat between 2016-18, publish our results for the benefit of other self-insured employers, and develop innovative health solutions for broader populations. Attributable to the observed measurable health impact and demonstrated financial impact of our population health management strategy, senior leadership of Quest Diagnostics endorses HealthyQuest within and beyond our company and in turn enables support for further population health services.

## Section II. Narrative Description of Program

### A. Your Organization

Quest Diagnostics empowers people to take action to improve health outcomes. Derived from the world's largest database of clinical lab results, our diagnostic insights reveal new avenues to identify and treat disease, inspire healthy behaviors and improve health care management. Quest annually serves one in three adult Americans and half the physicians and hospitals in the United States, and our 47,000 employees understand that, in the right hands and with the right context, our diagnostic insights can inspire actions that transform lives.

Quest Diagnostics is driven to discover and deliver diagnostic insights and innovations that help to improve human health. We offer a wide range of products and services that benefit patients, healthcare providers, and pharmaceutical / medical device companies, life insurance companies and employers. Our products include:

- **Diagnostic Testing Services** to aid in the diagnosis or detection of diseases, measure the progress or recovery from a disease or confirm that an individual is free from disease ranging from routine blood tests — such as total cholesterol, Pap testing and white blood cell count — to complex, gene-based and molecular testing. We have specialized expertise in cancer, cardiovascular diseases, infectious diseases, and neurology.
- **Clinical Trials Testing** (Q2 Solutions), a leading global clinical trials laboratory services organization to help biopharmaceutical, medical device and diagnostics customers improve human health through innovation that transforms science and data into actionable medical insights.
- **Healthcare IT**, our Quanam™ suite of technology and analytics solutions connects to more than 470,000 physicians to order lab tests, receive timely test results, share clinical information quickly and securely, and prescribe drugs.
- **Wellness and Risk Management** to help employers and insurers improve the health of their workers and reduce illegal drug use in the workplace.

Quest Diagnostics is headquartered in Secaucus, NJ (across the river from New York City), yet the company has multiple work sites throughout the United States, including 23 sites with between 400 to 2000 employees. Most unique to Quest Diagnostics are the variety of job functions across the organization which serve our patients, including ~14,000 phlebotomists who staff our ~2,250 patient service centers in 49 states, ~3,700 courier vehicles and 23 aircraft staffed by our logistics team and collectively making tens of thousands of stops daily to collect patient specimens and deliver them to our dozens of clinical laboratories staffed by lab technicians and specimen processors who work round the clock to ensure patients and doctors have their laboratory results next day.

## B. Health Management Strategy/Programs

Quest Diagnostics is committed to building a healthier world, starting at home with our own colleagues and their families. Now in its 15th year, our award-winning health and well-being program, HealthyQuest, equips our nearly 47,000 employees and their dependents with best-in-class tools and resources to improve their health and save money under the banner of “Health in Your Hands.” Our approach applies the Institute for Healthcare Improvement’s “Triple Aim Strategy”<sup>1</sup> focused on: (1) improving the experience of care; (2) improving health outcomes; (3) reducing per capita costs of health care.

As a “one-size-fits-all” does not cater to the unique health needs of all individuals, we built more personalized and targeted care pathways following participation in our world-class Blueprint for Wellness health-screening program; partnered with industry leaders to implement novel population-health solutions; and introduced workplace health initiatives to create an inspiring workplace - leading to measurable improvements in health, engagement and cost.

### *Organizational support, programs, communications*

Our health values are communicated in our company’s vision of ‘Empowering better health with diagnostic insights,’ and goals of building a healthier world and creating an inspiring workplace. Senior leaders both guide the health strategy as a steering committee and consistently articulate the value of health both internally and externally as influencers in the healthcare industry and members of the CEO Gold Standard and American Heart Association CEO Roundtable.

As employees in direct patient-serving roles comprise the majority of beneficiaries of the health program, voice of the employee input is actively solicited via focus groups, interviews, engagement surveys, health surveys, testimonials, email boxes, and town halls. In addition, our national wellness champion network, 45 members strong, supports and promotes health and well-being programs through trainings, meetings, rewards, recognitions, resources, project competitions and support, tool kits, and worksite certifications. While our Quest Community Action Network of 60 leaders serves healthy initiatives in our communities.

### *Programs*

Health of the individual and population is assessed using a variety of methods including: a 60-item health risk assessment, emotional well-being screening, biometric screenings, comprehensive lab testing, colorectal and prostate cancer screenings, employee surveys, claims data (medical, pharmacy, behavioral health, disability), monitoring devices (cellular scales and glucometers). Biometric screenings are provided onsite in 93 events across 45 locations and near-site at our 2,250 patient service centers.

A physician network is available to all screening participants via teleconference technologies to discuss screening results and guide referral and follow-up. Health / disease management and behavior change programs are made accessible through a variety of modalities including phone, email, web, in-person, group classes, and social connections and are offered through the both

the health plan (Aetna Advocate team) and health program through Quest Diagnostic services (including free lab work, chronic kidney disease identification, and colorectal cancer screening and referral).

Based on early insights revealing the need to engage employees with greater health opportunities (higher health risk / lower health engagement), we strategically identified promising vendors to supplement our care pathways. Currently, we partner with a variety of vendors to offer a health program that consists of more than 15 components to meet the targeted and specific needs of each individual member. Programs support the physical, emotional, and social needs of the individual. Programs range from diabetes prevention and weight management offered through Omada Health, mental health screening, support and connections to care offered in partnership with Johns Hopkins, onsite health coaching offered through Active Health, financial well-being offered through Fidelity. In addition, we have produced interactive educational modules to help employees acquire the knowledge they need to achieve and maintain positive health behaviors. Leading indicators of health program components are evaluated monthly to enable timely and efficient improvements.

Recognizing the large role that environmental elements play in health, the physical design of our workspaces also supports well-being. Our new company headquarters was designed according to health standards in an open floor design with adjustable standing desks at each workstation and open stairwells to promote physical activity. Healthy hydration is encouraged with Bevi (flavored, carbonated water) stations on every floor. Many large locations offer fitness centers, onsite exercise classes, and coordinated walking groups. Cafeterias and micro-markets are encouraged to offer and label healthy choices. Our laboratory in Marlborough, MA has been recognized as the “lab of the future” with its open plan and health inspiring design. With a WELL-building certified team member on staff, other labs are following suit in renovations or new construction according to Lead and Well-building standards for health buildings (air, mind, movement, nourishment, lighting, acoustics criteria) starting with our state of the art Clifton, NJ laboratory set to open in 2021 as the first clinical laboratory to meet WELL-building standards.

As engagement is fundamental to achieving health improvements, our employee health annual communications plan is comprehensive, multimodal and carefully prioritized with the objective of creating a healthy movement. Communications articulate key themes of “Health in Your Hands” and are disseminated at least monthly to employees and spouses or domestic partners. With protection of private health information and consent, communications are tailored to specific subgroups (based on demographics or risk status) with unique messages from partnering vendors. To maintain familiarity and build on trust, communications are co-branded with the HealthyQuest word mark and tagline that is readily recognized by employees. Throughout the year, the HealthyQuest team is invited to functional team meetings and webcasts to promote health and well-being programs and reinforce management support. Personal stories and testimonials of how the health program substantially improved or even

saved a life ([supplemental document 1](#)) are frequently featured in *OurQuest* magazine, digital workplace, and annual global inclusion reports.

We offer generous financial rewards of up to \$1,040 per employee (\$1,560 with spouse or domestic partner) per year in medical plan premium contributions for participating in annual health screening and assessment and achieving tobacco free (by cotinine testing) or metabolic syndrome-free criteria (or participating in a reasonable alternative program to help the person work towards living tobacco-free or with lower health risks through programs, social support, and coaching).

### C. Design Changes

Between 2015 and 2019, the company implemented plan design strategies intended to drive better value without creating barriers to accessing care, as described in Goldberg et al., 2019 <sup>2</sup>:

- Incentives to:
    - use in-network care and controls on out-of-network reimbursement
    - use centers of excellence
    - select a narrow network or exclusive provider organization
    - close gaps and care and steer to appropriate care
    - receive specialty medications in lowest cost settings of care when multiple settings are clinically equivalent
  - Formulary changes that encourage use of generics and narrowed lists of brand drugs
  - Spousal surcharge if a spouse on the plan had access to other employer-sponsored health coverage
  - Second opinion requirements for preference-sensitive procedures (e.g. back surgery)
- Employee contributions remained flat in 2016 to 2018 with marginal (1-3% increases) across plan types in 2019.

#### D. Addressing Health Disparities

Our priority in achieving health equity focuses on engaging our frontline, lower-wage colleagues in health. HealthyQuest@Work was launched in our Tampa, FL and Lenexa, KS laboratory and client services locations, based on the observed health disparities in pre-diabetes, metabolic syndrome, social determinants of health and restrictive job demands in these locations compared to our corporate, IT and R&D locations. Using Kotter's model of change strategy to bring change to the organization, we secured local leadership support and implemented steps to make "healthy the easy choice" at work. Steps included building a sense of urgency and building a coalition to drive change. Tactics included building novel onsite coaching models with Active Health (including pharmacists, social workers, registered nurses, dietitians, and lifestyle coaches), working with dining vendors to improve healthy selections, subsidizing a salad bar, implementing a new branding and messaging focused on CHILL, EAT, MOVE, CONNECT (figure 3), bringing health information to colleagues where they are at (presenting a job specific huddles in the laboratories and creating "drive time cds" for those working in logistics). In addition, to accommodate 3<sup>rd</sup> shift employees we host night shift screening events and onsite coaching events and hours.

In addition, with ~14,000 phlebotomists staffing our 2,250 patient service centers and 3,375 courier vehicles transporting patient specimens to our laboratories for analysis, providing access to remote workers and virtual teams remains a high priority. Using the interactive MyQuest portal, employees and program participants have direct access to their year over year comprehensive health screening results to track changes, identify risk, and engage with the right next health step for each specific individual at that time. Our Quest Digital Workplace features a HealthyQuest portal page that is up-to-date as a one-stop-shop providing accessing the breadth of program components within the HealthyQuest program. In addition, we have partnered with our employee business networks for health topics and health events to support health engagement for diverse employees. As a result of our HealthyQuest@Work initiative to address observed health disparities and make healthy the easy choice at work, we successfully increased engagement in health programs, reduced the prevalence of metabolic syndrome, improved health (supplemental document 3), and were recognized with the *Empowering Better Health Award*.

## Section III: Evaluation Methodology & Business Case Results

### Evaluation Methodology

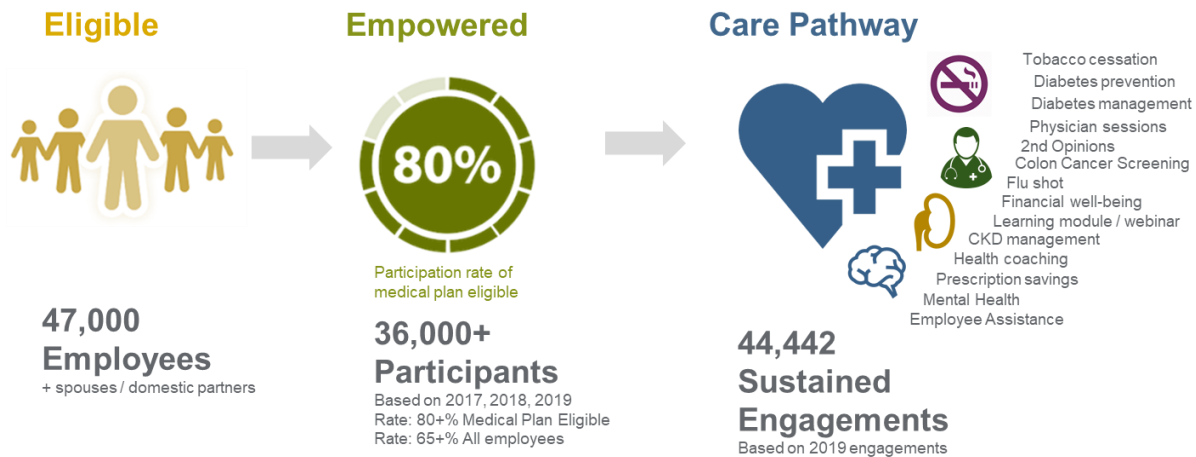
#### A. Program Participation & Engagement

Each year ~ 80% of eligible employees enrolled on a Quest medical plan (n=23,879 of 29,863 in 2019) participate in our health program. Including spouses / domestic partners and non-medical plan members, each fall more that 36k individuals are empowered with new and comprehensive insights into their personal and current health status based on their comprehensive laboratory, biometric assessment (body weight, body mass index, blood pressure, waist circumference), and health risk assessment. Such insights frequently identify laboratory evidence of previously unrecognized diseases such as diabetes or chronic kidney disease <sup>3</sup> and steer individuals into the right care pathway for the right person at the right time.

Among our subsequent care pathways, 44,442 subsequent engagements were tracked in 2019 (figure 1), indicating strong sustained engagement in health pathways throughout the year. While care paths differed by the individual, observed component engagement included: 1,436 (71%) of 2,031 eligible engaged in chronic kidney disease program (Albumin: Creatinine Ratio screening); 7,502 of 25,792 (29%) eligible engaged in InSure colorectal cancer program, and 761 (20%) of 3,891 eligible onsite employees engaged in more than 2,600 1:1 coaching sessions through Active Health. Additionally, more than 9,706 of ~47,000 eligible (21%) have engaged in the non-incentivized Balance program, our new proactive emotional well-being program since September 2019. In addition, 2,100 (40%) individuals of 5,313 applicants have sustained engagement and succeeded in the diabetes prevention program (surpassing benchmarks in lesson completion (Quest: 83% vs. Benchmark 79%) and food tracking activities (8.1 vs. 5.3). Additional individualized engagements include: 326 tobacco cessation through Quit for Life, ~800 physician alert value sessions, 722 general physician sessions, >2,000 EMPower lesson completions, 2,300 flu shots, 390 monitoring diabetes with On.Demand, 10,494 saving on prescriptions through Rx Savings, 1,613 unique members engages in Resources for Living, 2,146 Teledoc visits, 908 Grand Rounds Office Visits, and 292 Grand Rounds 2<sup>nd</sup> opinions.



Figure 1. Program Participation.



### Member Experience

Each year more than 81% employees and their spouses report satisfaction with the employer-sponsored health benefits (of 15,735 survey respondents; 17% neutral; only 1.5% dissatisfied). In addition, most participants reported, “My employer or spouse/partner's employer that is sponsoring this program cares about my well-being.” As employee engagement is a key metric of program success, we continuously seek employee input via surveys, annual employee engagement survey with participation rates of up to 94%, and voice of the customer feedback collected through employee focus groups. Since 2015, our score has improved 4 points on “The Company provides employee benefits that meet my needs.”

### Health and Well-being Scorecards

The HERO Scorecard evaluates commonly recognized best drivers of successful health programs among industry thought-leaders and in published research out of a maximum of 200 points in the categories of strategic planning, organizational and cultural support, programs, program integration, participation strategies, measurement and evaluation. In 2016, we inventoried our health and well-being practices with the HERO scorecard to identify opportunities to enhance our initiatives. Evaluation of our program in 2016, revealed opportunities to improve in strategic planning and organizational and cultural support. Program improvements between 2016 and 2020 lead to a 50-point increase in HERO score. Our current total score of 182 of 200 (shown below) is on par with national high performers. Our strengths have consistently been in programs and participation strategies, with further opportunity for improvement in program integration and evaluation, in particular.

	Quest Diagnostics 2020	Quest Diagnostics 2016	High Performers (National Average)	Maximum Points
Strategic Planning	19	12	14	20
Organizational and Cultural Support	50	24	35	50
Programs	35	30	30	40
Program Integration	11	12	8	16
Participation Strategies	48	37	33	50
Measurement & Evaluation	18	14	15	24
<b>TOTAL POINTS</b>	<b>182</b>	<b>129</b>	<b>131</b>	<b>200</b>

Aetna’s Active Health team also provided an independent assessment of Quest Diagnostics’ culture of health based on eight criteria within the workplace culture to better identify supports for overall health improvement ([supplemental document 2](#)). Criteria was modeled off the CDC Worksite Wellness Scorecard and HERO Employee Health Management Scorecard. The assessment evaluated the current population health and productivity management program and helped identify gaps and opportunities to help foster a sustainable Culture of Health. The assessment focused on 4 key locations in Florida and Kansas. Earning a score of 99.5 out of 100, evaluators commented that the culture of health was “among the best” they had seen and encouraged Quest’s application for the prestigious C. Everett Koop Award.

#### B. Health outcomes

Health outcomes were determined using a variety of methodologies. Key data sources included laboratory and biometric data of 47 tests and biometrics obtained in annual health screening, health risk assessments, program specific data included engagement and weight loss, Active Health indices, and medical and pharmacy claims. Data sources were combined in our data warehouse following privacy protective and HIPPA compliant methodologies for analysis of limited datasets. Analyses were conducted on the large population, program participants, and specific cohorts.

#### Overall

The Active Health Index was used to evaluate initial health status change of the health plan enrolled population.<sup>2</sup> Using this metric which identifies the impactable health index and health improvement opportunity, favorable changes were reported in Impactable Health Index by 0.5% in the overall population impactable health index and 4.2% reductions in opportunity for health improvement.<sup>2</sup> Declining opportunity is indicative of an improvement in the population

health and/or the care activities that have taken place to close gaps in care. The improved population health status was attributed to improved compliance with national health plan care gap communications to both members and their physicians in the following areas: biometrics (high cholesterol, blood pressure, triglycerides, and overweight status), condition/drug monitoring, adding/intensifying medical therapy, and preventive care screening for breast, cervical, and colorectal cancers. Subsequent analysis revealed a 5% improvement in clinical compliance among 42,114 health plan members in 2019, with 24% improvements in n= 844 and n= 986 members in Tampa and Lenexa locations, specifically ([supplemental document 2](#)).

The overall chronic disease related health value of our employee health program was determined using assessment of laboratory evidence of prediabetes, diabetes, chronic kidney disease, or positive colorectal screening in 35,254 employees and spouses who participated in annual health screenings in 2017. Expected 5-year incidence of cardiovascular disease, diabetes, colorectal cancer, chronic kidney disease progression and microvascular complications (retinopathy, neuropathy, and nephropathy) were determined as published <sup>3</sup> ([supplemental document 3](#)). Results showed that our program consisting of early identification and appropriate medical care in our program participants, may delay 34 cases of end-stage kidney disease and prevent diabetes-related complications, 210 cases of diabetes, and 3 cases of late-stage colorectal cancer over 5 years per 1,000 cases identified <sup>3</sup> ([supplemental document 3](#)). Costs associated with each condition were ~\$10k per year for diabetes, ~\$30k per year for diabetes with complications, and \$122k per year for end stage renal disease, respectively, <sup>3</sup> contributing to the cost savings described in the business outcomes section.

### Physical Activity

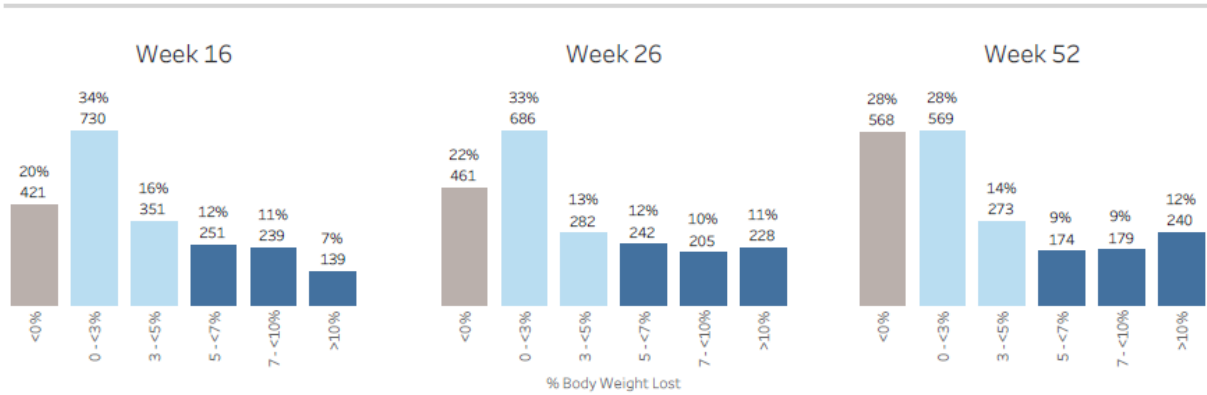
Using a cohort analysis of participants of the annual health screening program in 2015 and 2019, participation in physical activity (both aerobic and strength training) exercise improved. In 2015, there were 4,802 participants that reported no aerobic exercise sessions per week. Of these same participants, 37% reported they now exercise one or more times per week. In 2015, 6,601 participants that reported no strength training exercise sessions per week. Of these same participants, 31% reported they now do strength training one or more times per week. Such improvements may result in improvements in biomarkers associated with health and chronic disease, as we have previously shown associations between strength and aerobic exercise participation and laboratory test results suggestive of health status.<sup>4</sup>

### Weight Management

Overall, 2,131 (65%) of the 3,271 individuals enrolled in Omada Health completed 16-weeks of the program and lost 25,802 collective pounds (Average 3.3% BW loss per participant) with 30% achieving sustained weight loss of >5% after one year (vs. 26% benchmark) ([figure 2](#)). Participants were successful in losing 3.5% of their body weight at 26-weeks with 32% of participants losing > 5% of their body weight. Sustained weight reduction of >3% of body weight corresponds to an expected diabetes risk reduction over 3-years of >38%. Weight loss

results have translated into measurable reductions in risk for diabetes and cardiovascular disease.

Figure 2. Diabetes prevention program sustained weight loss outcomes



In the metrics below, the # of Participants represents the number of participants who have completed the referenced number of weeks in the program. The % of Participants Achieving 5% Weight Loss is an important clinical threshold for risk reduction. The Benchmark\* is a comparison measure based on Omada's book of business.

# of Participants (w16)	2,131	# of Participants (w26)	2,104	# of Participants (w52)	2,003
Average Weight Loss (w16)	3.3%	Average Weight Loss (w26)	3.5%	Average Weight Loss (w52)	3.2%
% Achieving 5% Weight Loss (w16)	30%	% Achieving 5% Weight Loss (w26)	32%	% Achieving 5% Weight Loss (w52)	30%
Benchmark* (w16)	26%	Benchmark* (w26)	26%	Benchmark* (w52)	26%

### Diabetes and Cardiovascular Disease

Reduced 8-year risk of developing diabetes and 10-year risk of developing atherosclerotic cardiovascular disease were determined by comparing change in diabetes risk for diabetes prevention program participants in the year prior to the intervention to the year following the intervention (participants served as their own controls to limit confounding, account for the influence of motivation, and to accommodate the analysis of a program intervention without restricting access) using paired t-tests, as presented at the American Diabetes Association<sup>5</sup> and American Heart Association.<sup>6</sup> After participation, fasting glucose, HbA1c, Triglycerides, and HDL ( $p < 0.01$ ) all shifted in a favorable direction; the 8-year risk of developing diabetes was reduced ( $p = 0.013$ ).<sup>5</sup> In addition, in the year after participation, mean 10-year ASCVD (atherosclerotic cardiovascular disease) risk decreased from 4.4% to 3.6%, and the fraction of participants with 10-year ASCVD risk  $\geq 5\%$  decreased from 30% to 22% ( $p = 0.04$ ). Metabolic syndrome was substantially reduced ( $p < 0.0001$ ), and CVD risk factors were shifted in a favorable direction.<sup>6</sup>

## Metabolic Syndrome

Cohort analysis of employees in job locations showing disparate baseline health measures for metabolic syndrome demonstrated measurable improvements through the targeted worksite initiative to make healthy the easy choice at work. Focus on these locations, increased engagement by 1-9% in largest and historically most difficult to engage job locations and job families and reduced expected prevalence of metabolic syndrome by 27% (figure 3).

Figure 3. Focused efforts increased engagement and reduced cardiometabolic risk for locations and jobs with observed baseline health disparities

# HealthyQuest @ Work

Making healthy the “easier choice” in for colleagues in Tampa and Lenexa (n~3,000)

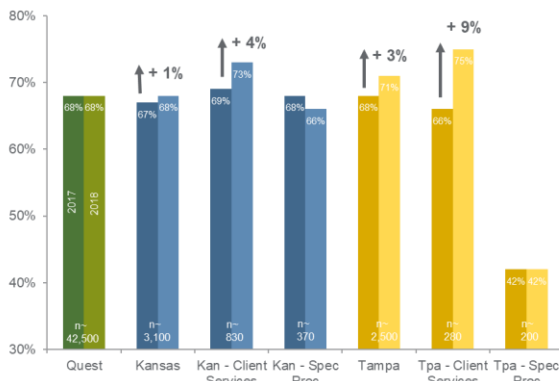


As a result we...

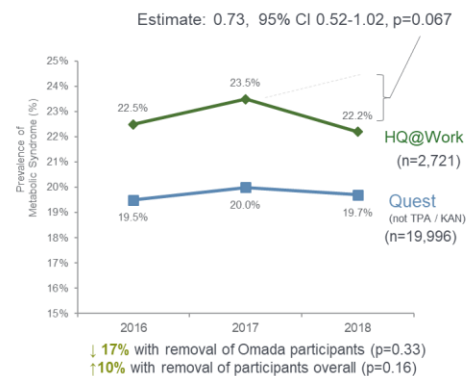
**1. Increased health engagement (1-9%)\* ; 2. Improved health (27%)\*\***

\* Based on 2018 Blueprint for Wellness participation; \*\* Based on rate observed vs. expected rate of Metabolic Syndrome in Tampa and Lenexa 2018

### Blueprint for Wellness participation ↑ in Tampa and Lenexa\* (\*especially in Client Services)



### Observed rate of Metabolic Syndrome was 27% lower than expected in Tampa and Lenexa 2018 \*



## Colorectal cancer screening

Evaluation of health plan claims data for employees with continuous medical coverage over 5-years (2013-2017), were used to determine adherence to current colorectal cancer screening guidelines (colonoscopy any year or FIT every year). Colonoscopy procedures were identified in professional services and outpatient event files using current procedural terminology (CPT) codes. Approximately a third (32.7%; 1,858/5,686) of eligible employees participated in the employer sponsored screening program consisting of at home kits for quantitative detection of human hemoglobin in fecal samples. Some 42.7% (794/1,858) of participants underwent colonoscopy over the 5-year study period. An additional 15.9% (296/1,858) were tested with InSureFIT all 5 years. In total 58.7% (1,090/1,858) of participants were adherent to guidelines (colonoscopy any year or annual FIT). In comparison, only 34.6% (1,323/3,828) of non-participants were adherent to guidelines. Thus, participants in the colorectal screening program had 24% higher adherence to guidelines for colorectal cancer screening compared to non-participants (figure 4).

Figure 4. Workplace program improved adherence to colorectal screening guidelines. a. poster presented at the American Association of Cancer Research, 2019, b-d. enlarged view of b. Selection and categorization of study population, c. Distribution of Positive and Negative Test Results Over the 5-year Study Period, d. Participation in InSure FIT Program Increased adherence to guidelines for colorectal cancer screening

a.

**Poster 3315**

**Workplace Program that Offers Annual Fecal Immunochemical Testing Improves Adherence to Colorectal Cancer Screening Guidelines**

Carmen H Tong, Anita Salish, Maren S Frigala, Lance A Bare, and Charles E Birse  
Quest Diagnostics, San Juan Capistrano, CA

American Association of Cancer Research  
Annual Meeting  
Atlanta, GA | March 29-April 3, 2019  
Correspondence: Charles Birse  
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**Introduction**

Although regular screening reduces the incidence and mortality of colorectal cancer, ~35% of eligible adults remain non-adherent to screening guidelines<sup>1</sup>.

We asked if a workplace screening program, using a non-invasive fecal immunochemical test (InSure FIT), would improve adherence to guidelines.

**Methods**

**InSure FIT program:** An employer-sponsored program provided eligible employees (age 50-75 years) the opportunity to participate in colorectal cancer screening. InSure FIT collection kits were mailed annually to: (i) newly eligible employees, (ii) new hires, (iii) those who had participated the previous year, and (iv) those who requested testing.

Employees returned kits by mail for quantitative detection of human hemoglobin in fecal samples. Those with positive test results were contacted by phone and mail with a recommendation to contact their physician for follow-up diagnostic testing.

Colonoscopy procedures were identified in professional services and outpatient event files using current procedural terminology (CPT) codes.

**Study Population:** Employees with continuous medical coverage during their period of age eligibility were included. Those with claims for colorectal cancer screening prior to turning 50 were excluded. Those with evidence of high-risk history were also excluded, including individuals with claims for personal history of cancer or a family history of colon cancer, ulcerative colitis, or Crohn's disease.

To protect participant privacy, this analysis was conducted using a limited data set as permitted by the HIPAA Privacy Rule (Title 45 Code of Federal Regulations, Section 164.514).

**Study Period:** We evaluated results from InSure FIT testing collected over a 5-year period (2013-2017).

**Categorization criteria:** Individuals were categorized as "participants" or "non-participants" (Figure 1). Participants were defined as those with at least 1 positive InSure FIT test result (InSure FIT Positive) or at least 1 negative test result (InSure FIT Negative) over the 5-year period. Non-participants were defined as those who were mailed at least 1 InSure FIT Kit that was not returned for testing (InSure FIT Mailed but not returned for testing) or with those who never received an InSure FIT Kit (No InSure FIT).

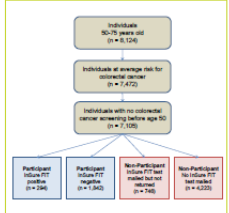
**Methods (continued)**

**Adherence to Colorectal Cancer Screening Guidelines:** Individuals were considered adherent if they:

- Had at least 1 colonoscopy procedure
- Had an InSure FIT test result for 5 consecutive years

**Results**

**Selection and categorization of study population:** Individuals initially considered for the study included 8,124 employees (Figure 1). Of those, 652 were excluded because of high-risk history for colorectal cancer. Another 307 subjects were excluded because of colorectal screening before age 50. The final cohort included 7,165 individuals who were evaluated for participation in the InSure FIT program.



**Figure 1. Selection and categorization of study population.**

**Baseline demographics:** The average age of individuals in the study was 54.6 years (SD 4.6) (Table 1), with most being female (66.1%). Most participants were White (62.2%), though a substantial proportion were Black (16.9%) or Asian (15.9%).

**Table 1. Baseline Demographics**

	Participant (n=2,136)	Non-Participant (n=4,210)	Total (n=7,165)
Age in years (SD)	55.2 (4.6)	54.2 (4.6)	54.6 (4.6)
Female (%)	1,470 (68.8%)	3,220 (76.5%)	4,700 (66.1%)
Ethnicity (%)			
White	1,331 (62.1%)	2,468 (58.7%)	3,799 (53.2%)
Black	280 (13.1%)	919 (21.8%)	1,199 (16.8%)
Asian	397 (18.6%)	786 (18.7%)	1,183 (16.5%)
Hispanic	136 (6.3%)	496 (11.8%)	632 (8.8%)
Other	72 (3.3%)	328 (7.8%)	400 (5.6%)

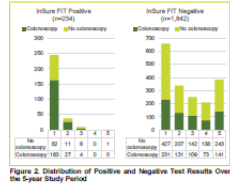
**Positive and negative results**

Of the 234 individuals who tested positive:

- 245 (63.3%) had a single positive test result
- 153 of 245 (62.5%) with single positive test result had at least 1 colonoscopy (Figure 2).

Of the 1,842 individuals who tested negative:

- 658 (35.7%) had a single negative test
- 384 (20.8%) tested negative for all 5 years.
- 243 of 384 (63.3%) with a negative test result all 5 years had no colonoscopy procedure (Figure 2) and were considered compliant with colorectal screening guidelines.



**Figure 2. Distribution of Positive and Negative Test Results Over the 5-year Study Period**

**Table 2. Colonoscopy and InSure FIT Testing**

	Total	Colonoscopy (% Total)	FIT test all 5 years (% Total)	Colonoscopy or FIT test all 5 years (% Total)
Participants	2,136	879 (41.2%)	243 (11.4%)	1,122 (52.6%)
InSure FIT Positive	234	154 (66.0%)	154 (66.0%)	154 (66.0%)
InSure FIT Negative	1,842	685 (37.2%)	243 (13.2%)	928 (50.4%)
Non-Participant	4,969	1,548 (31.2%)	1,548 (31.2%)	1,548 (31.2%)
No InSure FIT	4,223	1,280 (30.3%)	1,280 (30.3%)	1,280 (30.3%)
InSure FIT Mailed but not returned for testing	746	268 (35.9%)	268 (35.9%)	268 (35.9%)

**Figure 3. Participation in InSure FIT Program increased adherence to guidelines for colorectal cancer screening**

Most subjects were evaluated over the entire 5 year study period (85.5%; 4,239 of 7,165). However, some subjects were only eligible for part of the study period (1, 2, 3, or 4 years). These individuals either turned 50 during the study (30.0%; n=2,129 of 7,165) or turned 75 (6.9%; 37 of 7,165).

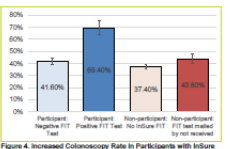
**Results (continued)**

**Colonoscopy testing:** The percentage of subjects with at least 1 colonoscopy procedure was determined for each study group (Table 2). Colonoscopy rates were highest in subjects with an InSure FIT positive test result: 66.0% (154 of 234).

Participants in the InSure FIT program had considerably higher adherence rate (colonoscopy or unimpaired FIT testing) than non-participants: 52.6% versus 31.2% (p<0.001, Figure 3).

**Results (continued)**

After correcting for the appropriate eligible study period (1-5 years), 5-year colonoscopy rates were determined for each of the study groups (Figure 4). Higher levels of colonoscopy procedures were observed in individuals with a positive result relative to all other groups (p<0.0001).



**Figure 4. Increased Colonoscopy Rate in Participants with InSure FIT Positive Test**

**Conclusions**

- These data suggest that participation in an employer-sponsored stool-based testing program was effective in increasing adherence to guidelines for colorectal cancer screening by 21%.
- Increased adherence was achieved through 1) annual participation in the program and (ii) increased colonoscopy rates.

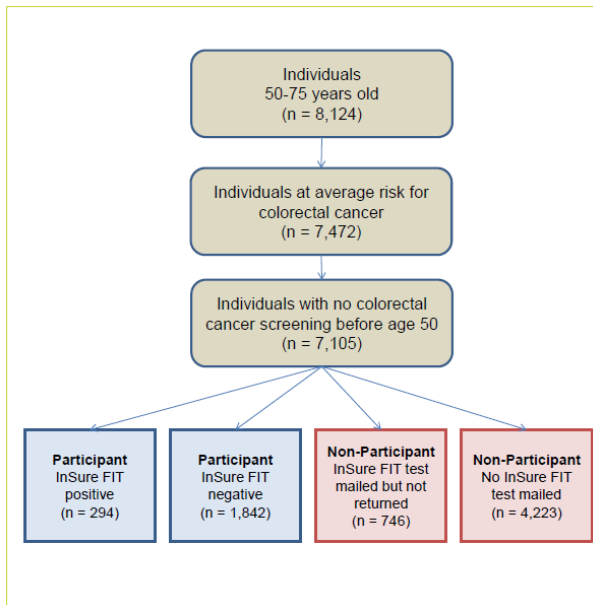
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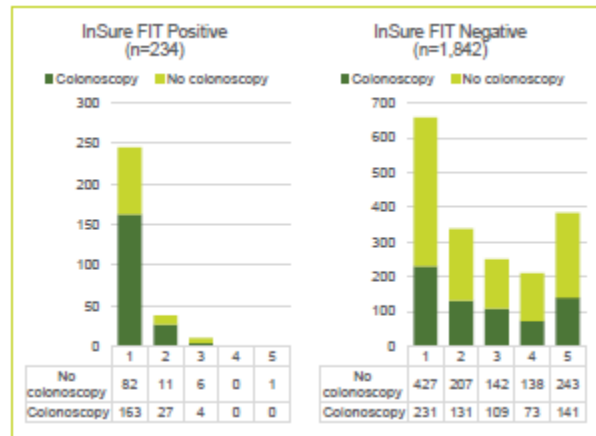
**Disclosure**

Carmen Tong, Anita Salish, Maren Frigala, Lance Bare, and Charles Birse are current employees at Quest Diagnostics.

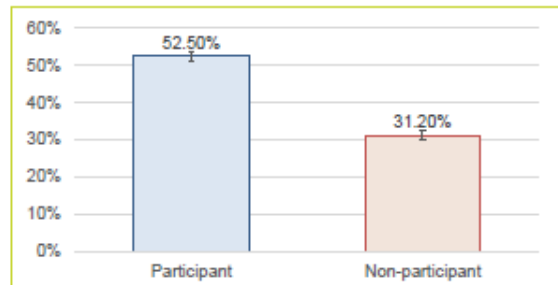
b.



c.



d.



### C. Organizational Outcomes

Economic outcomes were evaluated using a variety of data sources and methodologies including annual health screenings, health risk assessments, medical and pharmacy claims data, and program specific data including engagement. Data sources were combined in our data warehouse following privacy protective and HIPPA compliant methodologies for analysis of limited datasets.

#### Healthcare cost savings

As a global measure of health program effectiveness, health care cost savings realized from our total population health program were determined by year over year medical / pharmacy claims analysis. Our year over year cost trend was compared to national observed trends in healthcare for self-insured employers. Cost saving were determined as the cumulative difference between observed national cost trends and Quest Diagnostics cost trends applied toward Quest Diagnostics annual healthcare spend, annually between 2015 and 2019. <sup>2</sup>

Since 2015, we successfully “bent” the annual healthcare cost trend for our 63,410 health plan members (figure 5). While industry healthcare cost trends increased 6.2%, 5.5%, 5.7%, and 5.7% in 2016, 2017, 2018, and 2019, our plan attenuated projected increase to 4.2%, -1.0%, 0.3%, and 3.7% during this time period, saving an estimated \$40M over this 4 year time period across 59,308 to 63,410 members (figure 5).

As a publicly traded company, business outcomes most valued by the organization include employee engagement and stock price. Since 2005, Quest Diagnostics (DGX) stock price rose to from ~\$50 per share in 2005 (the year that Blueprint for Wellness annual health screenings were implemented) to ~\$70 in 2015 (the year population health management strategy was implemented) to a current value of ~\$100 (figure 5).



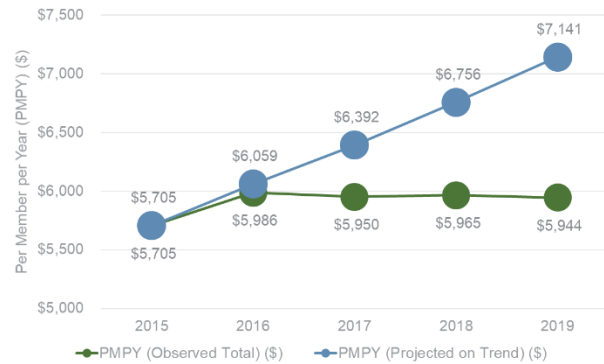
Figure 5. Business Outcomes.

**a.** Since 2015, population health management strategies have helped Quest Diagnostics (green) bend the medical cost trend vs. rates seen in the industry (blue). **b.** Attenuating medical cost trend increases per person has saved millions across the Quest employee population. **c.** Quest Diagnostics (DGX) stock price has doubled since 2005, implementation of HealthyQuest program.

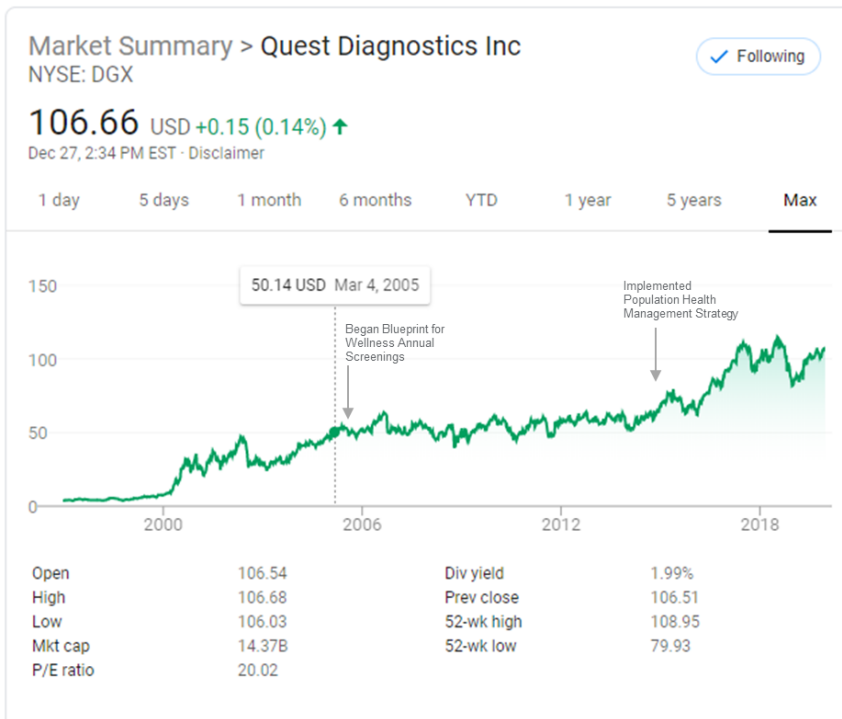
**a.**



**b.**



**c.**



### Cost savings for chronic condition management

Cost savings were also computed for disease specific care pathways like chronic kidney disease management and diabetes prevention. Cost effectiveness of the chronic kidney disease (CKD) care pathway was determined using a decision model with Markov nodes to estimate the cost

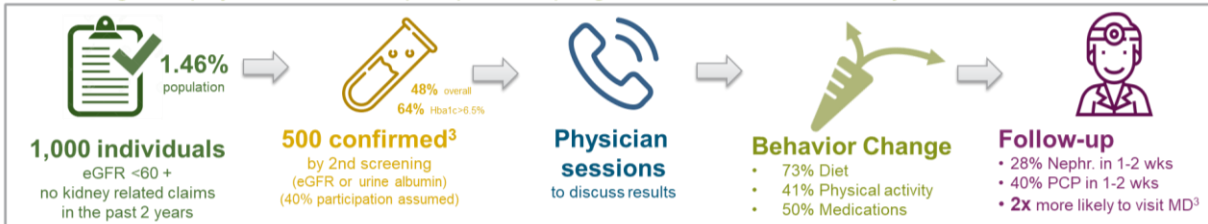
and health outcomes of individuals eligible for CKD outreach programs based on the eGFR testing results from annual employee wellness events at Quest Diagnostics, as published.<sup>7</sup> Using this model, with a participation rate of 40%, cost savings would be observed in year 4, when screening the entire population, and year 2, if screening were restricted to those with evidence of diabetes (figure 6).

Cost savings for the diabetes prevention / metabolic syndrome program was modeled using longitudinal claims analysis, difference-in-differences regression with health plan data and IBM MarketScan Database data through Omada and validated with actual claims data. Propensity score matching was used to generate a matched control group with the following variables: clinical eligibility, age, sex, geography, comorbidities, plan type, relationship to payer (i.e. employee or dependent), baseline medical & prescription spend. Inpatient, outpatient, Rx, and other medical claims were compared for n=2,027 participants were compared to n=2,027 in the control group. Using this model, during the intervention year, total medical costs for Omada participants were 21% lower than matched comparisons, revealing \$1,169 in annual gross savings. Validation with actual claims data from program participants are shown in figure 6. Analysis of medical and pharmacy claims of at risk Omada diabetes prevention program participants with pre-diabetes in the year before (pre) and following (post) the intervention attenuated health care cost increases in this cohort compared to a control group with pre-diabetes who did not participate in the program. After participation in the program, claims analysis revealed increases of 10% (\$421/person) on average compared to those with similar risk for diabetes who did not participate (increase of 25% (\$1,018/person), resulting in a savings of \$597/person per year in medical claims compared to non-participant values.

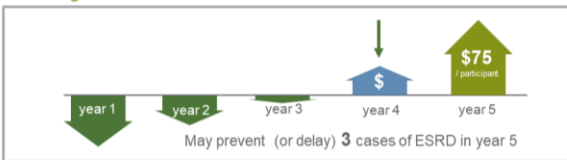
Figure 6. Cost savings of chronic disease prevention and management a. chronic kidney disease management, b. diabetes prevention

a. Chronic Kidney Disease Identification and Management

Screening and physician follow-up to prevent progression of chronic kidney disease and ESRD



Cost savings\* (\$) achieved at year 4 when screening all working adults<sup>4</sup>



Cost savings\* (\$) achieved at year 2 when screening individuals with type 2 diabetes<sup>4</sup>



\*Program costs include: screening, outreach, confirmation testing, PCP visit, ACE inhibitor medications, ACE monitoring. Cost savings is dependent on program participation (40% assumed), cost of treatment, efficacy of medications, progression to macroalbuminuria

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## b. Diabetes Prevention

[Figure removed - publication in progress]

### Section IV. Innovation

Rising costs, inefficiencies and frustrations in healthcare have inspired creativity, disruption, and new ideas and approaches for health management. Such innovations have focused on 1) the way health care is delivered; 2) the way employees use health care; and 3) technological advances to improve health care and chronic disease management. Our innovations have focused on delivering the right healthcare to the right person at the right time. For our employees this entails the creation of care pathways for early detection and treatment of conditions through novel screening tests, telehealth and connections to care. Screening includes both novel and in-depth proactive assessments of mental and physical health. Home test kits are even now sent to remote workers so that convenience and access do not present barriers to health insights. New mental health assessments are now conveniently and privately completed on smart devices to evaluate emerging risk or domains of mental and behavioral health beyond traditional and sparse methods. Physical health assessments include novel markers for prevalent but largely undetected physical health conditions such as pre-diabetes or stage 3 chronic kidney disease.

Beyond screening, telehealth provides important elements of access, convenience and efficiency to our members. It currently enables telephonic or video appointments with board-certified physicians or health professionals to discuss screening test results, provide in-moment support, navigate of care, find provider availability, schedule appointments, or provide same day care and prescriptions for non-emergency care (like flu, pink eye, dermatitis). Furthermore, as today's workforce is increasingly connected to the world of digital information while "on the go," we have leveraged technology to access and track health with technology and smart phone applications. Such capacities enable individuals to make appointments, track blood testing results, or monitor and share information with health coaches via cellular glucometers and mobile body weight scales. Finally, regarding the delivery of care, we have identified Centers of Excellence, second opinion services, and physician finding services to deliver higher quality and lower or no cost care. The ultimate goals of our innovative strategies are to improve health outcomes and member experience with care, convenience and efficiency, while reducing costs within the health care system.

## Key Variable Tables

<b>Variable</b>	Reduction in diabetes risk ( <a href="#">link</a> )	Reduction in cardiovascular disease risk	Prevention of chronic disease progression ( <a href="#">Link to article</a> )
<b>Evaluation Design</b>	Longitudinal	Longitudinal	Observational
<b>Number of Participants</b>	n=460	n=144	n=35,254
<b>Participant Selection Method</b>	Individuals with metabolic syndrome or pre-diabetes who engaged in annual health screening in for 3 consecutive years and a digital behavioral program in 2017	Individuals with metabolic syndrome who engaged in annual health screening in for 3 consecutive years and completed $\geq 9$ lessons in a digital behavioral program in 2017	Employees and spouses who participated in annual health screenings
<b>Control / Comparison Group</b>	n=460 participants served as their own control in the control year	n=144 participants served as their own control in the control year	N/A – Observational study with modelling
<b>Key Outcomes &amp; Results</b>	8-y risk of Type II diabetes, fasting glucose, HbA1c, Triglycerides, HDL improved following the intervention compared to the control year	Mean 10-year ASCVD risk decreased from 4.4% to 3.6%, and the fraction of participants with 10-year ASCVD risk $\geq 5\%$ decreased from 30% to 22%: P=0.04. Metabolic syndrome was substantially reduced ( $p < 0.0001$ ), and CVD risk factors were shifted in a favorable direction.	Annual screening found laboratory evidence for: 1185 previously unrecognized cases of prediabetes 287 cases of diabetes 73 cases of chronic kidney disease 669 positive colorectal screens per 10,000 people Early identification and appropriate medical care may delay 34 cases of end-stage kidney disease and prevent diabetes-related complications, 210 cases of diabetes, and 3 cases of late-stage colorectal cancer over 5 years per 1000 cases identified.
<b>Analysis (statistical procedures)</b>	Paired T-tests of changes over control year to changes in intervention year	Paired t-Tests and McNemar tests were used to assess changes in ASCVD risk before and after intervention	Descriptive report of observed frequencies. Chronic disease progression modelling.
<b>Publication</b>	Birse et al., ADA 2019 <sup>5</sup>	Iakoubova et al. AHA, 2019 <sup>6</sup>	Fragala et al., AJCM, 2019 <sup>3</sup>

Variable	Cost savings ( <a href="#">link to article</a> )	Cost effectiveness of chronic kidney disease (CKD) care ( <a href="#">link to article</a> )	Cost effectiveness of diabetes prevention
Evaluation Design	Case study	Markov model	Outcomes evaluation
Number of Participants	~60,000	1,000	3,643
Participant Selection Method	Quest health plan members	Individuals eligible for the CKD outreach program, based on eGFR < 60 mL/min/1.73m <sup>2</sup>	Health plan members with pre-diabetes who participated in Omada diabetes prevention program (n=475)
Control / Comparison Group	National observations	Individuals with CKD risk who did not participate	Health plan members with pre-diabetes who did not participate in the program (n=3,168)
Key Outcomes & Results	<p>Annual employer health care cost trend improved from a year-over-year trend of 5.7% for 2014 to 2015, to 4.6% for 2015 to 2016, to -1.0% for 2016 to 2017, and 0.3% for 2017 to 2018.</p> <p>Health program was 11% more efficient than programs with a comparable benefit and employee contribution.</p>	<p>CKD outreach program resulted in a gain of 2.3 quality-adjusted life-years and saved \$500,211 when 1,000 diabetic potential CKD patients were invited. When potential CKD patients were invited without regard for diabetes status, 0.8 quality-adjusted life-years were gained at a cost savings of \$34,161.</p>	<p>In the year after participation in the program, claims analysis reveals increases of % (\$ /person) on average compared to those with similar risk for diabetes who did not participate (increase of 25% (\$ /person), resulting in a savings of \$ /person per year in medical claims compared to non-participant values.</p>
Analysis (statistical procedures)	Quasi-experimental design	Decision model with Markov nodes	Claims analysis of group mean differences
Publication	Goldberg et al., Pop. Health Man. 2019 <sup>2</sup>	Li & Devlin, Pop. Health Man. 2020 <sup>7</sup>	Publication in progress

## Limitations

Outcomes reported in this application must be interpreted in the context of potential limitations. For example, in an employee population setting, clinical research designs with random assignment to intervention and control groups are not feasible as all employees are provided access to the health benefits. Thus, evaluation of health outcomes may be influenced by participation bias. Each year up to 20% of eligible individuals opt to not participate in the program. Based on a survey to determine reasons for non-participation (n=932 responses), 19% reported a preference to complete annual screening with their personal physician vs. only <2% who reported that they viewed themselves as healthy and did not want to participate. Thus, we may assume that those who do not participate have higher health risk than the overall population. In addition, factors like turnover, restrict cohort analysis size in longitudinal evaluations of health outcomes. Moreover, despite observations, causal relationships between general population health outcomes and overall population health costs can only be inferred and not attributed as entirely causal. Regardless of limitations, building a work culture of health while implementing the triple aim strategy have resulted in measurable improvements in employee population health.

## Section IV. Supplemental Documentation

1. Employee Testimonial: My Screening Saved My Life
2. Active Health Assessment
  - (by Active Health)
3. Peer-reviewed publication: Self-Insured Employer Health Benefits Strategy Established a Negative Cost Trend While Improving Performance
  - (Goldberg et al. Pop Health Mgmt., 2019) ([link to article](#))
4. Peer-reviewed publication: Population health screenings for the prevention of chronic disease progression.
  - (Fragala et al., Am J Manag Care, 2019) ([link to article](#))
5. Letter of support from Quest Diagnostics Chief Medical Officer, Jay Wohlgemuth, MD

## 1. Employee Testimonial: My screening saved my life

started working at Quest Diagnostics in 2016 and had his first Blueprint for Wellness screening that same year. A few days after his screening, got an alert call from a physician based on his **screening results**. After discussing his symptoms, the doctor told him his results were consistent with end-stage renal failure. Although he hadn't always taken the best care of his health, at 33 years old he didn't worry much about it. He felt confident the doctor was wrong and went to a different doctor for a second opinion.

After more testing, that doctor called him two days later to tell him to pack a bag and head to the ER. He was indeed in end-stage renal failure. At the hospital he had multiple surgeries and immediately started dialysis. He continued dialysis three days a week, four hours per day, for 20 months. During his treatment he continued to work, arranging his schedule around his dialysis.

He eventually realized continuing with dialysis was not sustainable, so he worked hard to change his lifestyle so that he would be eligible for a transplant. After being added to the transplant list in May 2019, received a kidney transplant on June 3, 2019. He endured a three-month recovery process, then continued to change his lifestyle to improve his health and increase his energy level.

Receiving a potentially fatal diagnosis from his screening taught the importance of taking care of himself.

"I am 33 years old," he remembers thinking, "I'm not ready to die."

It also put his health fears into perspective. After this experience he is no longer afraid of going to the hospital or learning test results. Now he looks forward to those visits; when the doctor tells him the positive results he says, "I know, I did that."

When friends and colleagues discuss their fears of getting a screening, whether it's the fear of what they might find out or the potential medical bills, he reminds them that the worst option is to do nothing. "You could lose your life, which is more important than any of [those concerns]." He encourages others not to ignore small details when it comes to health, and not to wait to get checked out.

Now is enjoying better health and making work-life balance a priority. This experience taught him the value of appreciating his life and has also brought him closer to his friends and family. "You don't know where the support will come from," recalls. He is thankful for that support and for his life, and he hopes that his story will encourage others to make their health a priority.



## 2. Active Health Assessment

### Quest Culture of Health

#### Goals of the Culture of Health Evaluation

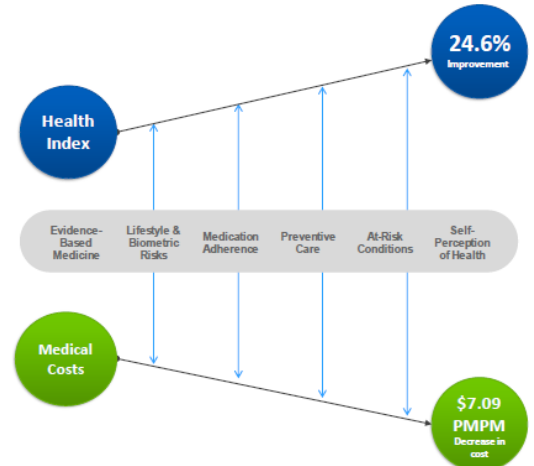
Assess current population health and productivity management program, and help identify gaps and opportunities to help foster a sustainable Culture of Health

Assess 8 core components within one's workplace culture to better identify supports for overall health improvement

Use results to enhance and/or drive foundation for population health management program

Overall Weighted Score

99.5



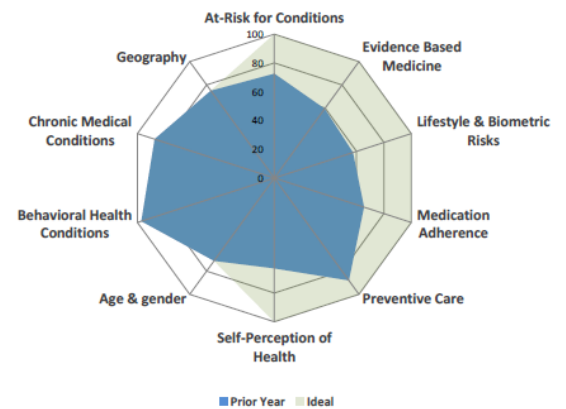
Cultural Components	
Scorecard components modeled after CDC Worksite Wellness Scorecard and Hero Employee Management Scorecard	
	Quest Section Score (Out of 100)
Organizational Commitment and Support	100
Organizational Policies	100
Physical Environment	95
Employee Engagement	100
Communication	100
Programs	100
Measurement	100
Evaluation	100

Quest has a very strong Culture of Health

**Areas of Opportunity**

- Expansion of healthy food options
- Consider onsite medical clinic
- Sharing testimonials

Opportunity by Dimension



Proprietary

ActiveHealth MANAGEMENT

ActiveHealth Index	Tampa Result (n)	Lenexa Result (n)	Quest Result (n)
The health improvement opportunity will be reduced (e.g. an improvement in health)	7% (844)	7% (986)	5% (43,944)

Composite Clinical Outcomes	Tampa Result (n)	Lenexa Result (n)	Quest Result (n)
Reduction in non-compliance for Composite Clinical Outcomes	24% (844)	24% (986)	5% (42,114)

### 3. Peer-reviewed publication ([link to article](#))

POPULATION HEALTH MANAGEMENT  
Volume 00, Number 00, 2019  
Mary Ann Liebert, Inc.  
DOI: 10.1089/pop.2018.0184

## Self-Insured Employer Health Benefits Strategy Established a Negative Cost Trend While Improving Performance

Steven E. Goldberg, MD, MBA, Maren S. Fragala, PhD, and Jay G. Wohlgenuth, MD

### Abstract

This case study describes the collaboration between a self-insured employee benefits team and a national health insurance provider to control costs while maintaining program quality and promoting population health. In 2015, Quest Diagnostics well exceeded the full-year expense target for their ~60,000-life Group Health Insurance (GHI) program. Through proactive changes, physician executive leadership, health plan collaboration, disease-specific population health initiatives, and plan design, Quest GHI annual employer health care cost trend subsequently improved from a year-over-year trend of 5.7% for 2014 to 2015, to 4.6% for 2015 to 2016, to -1.0% for 2016 to 2017, and most recently, 0.3% for 2017 to 2018. The actuarial value of the GHI plan did not decline, and employee cost share also remained unchanged in 2017 and 2018 versus 2016 for the high-performance network option. There was a 3% premium increase for the Preferred Provider Organization option in 2018. A third-party analysis for full year 2017 showed Quest GHI to be 11% more efficient than the mean GHI for programs with a comparable benefit and employee contribution. Early results in 2018 show improvements in the health status of the health plan membership. This article describes an approach for self-insured employers to proactively collaborate with a health plan and pharmacy benefits manager to practice the Triple Aim of improving the patient health care experience and population health while reducing per capita health care spending.

**Keywords:** employee health plan, employer health care, reduce health care costs, Triple Aim

### Introduction

**I**N THE UNITED STATES, more than 178 million (56%) Americans receive insurance coverage through an employer; of these, approximately 60% have insurance from a self-insured employer.<sup>1</sup> Health care costs (medical and pharmacy) for employers and employees continue to increase at a 6% predicted rate in 2019, on top of the 5%-6% annual increases observed since 2014.<sup>2</sup> The increase in health care spending has been directly attributed to increased prices for health care services,<sup>3</sup> while utilization has remained somewhat consistent.<sup>4</sup> From 2012 to 2016, the largest cumulative increase in spending was for prescription drugs (27.2%), followed by outpatient services (17.1%), professional services (11.2%), and inpatient services (8.3%).<sup>3</sup> Such widespread continued escalation in employee health care costs is associated with barriers to accessing care, accessing medications, and treatment adherence, as well as other challenges for employees and their spouses, partners, and dependents.

Accordingly, self-insured employers need to obtain additional value to offset the trend of higher health care costs.

### Self-Insured Employers: Risks and Benefits

Companies with a self-insured strategy take on the risk for coverage of medical and pharmacy costs for their employees. As health care costs change, these companies assume the burden or benefit. An important benefit is that self-insured companies pay claims as they present rather than paying a fixed “fully-insured” rate that would include an approximately 2%-3% catastrophic premium. Other benefits of self-insurance include (per Kaiser Permanente<sup>5</sup>):

- Greater control over plan design and reporting
- Increased transparency of claims data
- Cash flow benefits
- Reduced premium taxes
- State mandated benefits may be avoided

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Quest Diagnostics, Secaucus, New Jersey.

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4. Peer-reviewed publication ([link to article](#))

**The American Journal of Managed Care > November 2019** – Published on:  
November 15, 2019

## Population Health Screenings for the Prevention of Chronic Disease Progression

Maren S. Fragala, PhD; Dov Shiffman, PhD; and Charles E. Birse, PhD

Identification of chronic diseases in their early stages enables prompt treatment that can slow or prevent disease development and debilitating and costly health outcomes.

### ABSTRACT

**Objectives:** Early detection of disease enables prompt treatment that can prevent disease progression and costly health outcomes. We report incidence of previously unrecognized disease and investigate the expected effect of early detection and care on health outcomes.

**Study Design:** Population health study based on laboratory evidence.

**Methods:** Laboratory evidence of prediabetes, diabetes, chronic kidney disease, and colorectal cancer was evaluated in an employee and spouse population (65% women; mean [SD] age = 46 [12] years). Expected disease progression was assessed.

**Results:** Annual screening found laboratory evidence for 1185 previously unrecognized cases of prediabetes, 287 cases of diabetes, 73 cases of chronic kidney disease, and 669 positive colorectal screens per 10,000 people.

**Conclusions:** Early identification and appropriate medical care may delay 34 cases of end-stage kidney disease and prevent diabetes-related complications, 210 cases of diabetes, and 3 cases of late-stage colorectal cancer over 5 years per 1000 cases identified.

***Am J Manag Care. 2019;25(11):548-553***

## 5. Letter of Support



May 6, 2020

Dear Health Project Evaluators:

Quest Diagnostics is pleased to submit our application for the 2020 C. Everett Koop National Health Award. I am confident you will find our employee population health promotion program, *HealthyQuest*, most suitable for recognition. It aligns to what you strive to recognize — exemplary health promotion and disease prevention programs with demonstrated effectiveness in influencing personal health habits as well as cost-effective use of health care resources.

Quest Diagnostics empowers people to take action to improve health outcomes. Derived from the world's largest database of clinical lab results, our diagnostic insights reveal new avenues to identify and treat disease, inspire healthy behaviors, and improve health care management. Quest developed our population health strategy around two of the company's three aspirational goals: promoting a healthier world and creating an inspiring workplace. At Quest, our commitment to building a healthier world starts at home with our employees and their families. We recognize our ability to care for the millions of patients we serve is closely tied to the well-being of our employees. We believe their physical, mental and social health are essential components of overall well-being — often intersecting with and influencing other aspects of health.

Health care is complex, and Quest Diagnostics recognizes that expecting the average employee to navigate it successfully alone is unrealistic. Therefore, Quest set out to identify places where gaps in care can occur. To help address the ever-changing, unique and personal needs of our 47,000 employees and their families, we are taking a multi-pronged approach to support a continuum of health needs. In doing so, we aspire to successfully engage more individuals with the right care at the right time and drive further utilization of the valuable resources we offer. Future initiatives also include collaborations with academic institutions to increase convenience and access to care.

As the world leader in diagnostic information services, Quest uses our unique position and unmatched data to collaborate with leading academic institutions to improve the health of the millions of patients we serve, as well as our own employees. We anticipate that our expanded and collaborative thought leadership, combined with our diagnostic footprint, will improve engagement in well-being programs for our Quest colleagues and their family members. Quest has also sought to replace the one-size-fits-all approach typical of corporate wellness programs. Our programs offer targeted solutions — often in collaboration with leading health care specialists. For instance, an employee with mental health needs may evaluate risk and navigate care conveniently through Johns Hopkins Medicine mental health care concierge team. A family with a cancer diagnosis may access Memorial Sloan Kettering's MSK Direct guided cancer program for guidance or get a second opinion from a top medical expert through Grand Rounds. A busy working parent can tap into telehealth services through Teladoc, while an individual struggling with high prescription drug costs can seek lower-cost alternatives from Rx Savings Solutions. Individuals managing chronic conditions like diabetes or chronic kidney disease have free access to testing, monitoring, programming and physicians to manage the risk. Our unique collaborations may also better connect the individuals we serve to the right care for the right person at the right time.

Our *HealthyQuest* program meets the Health Project's goal of improving population health by helping individuals change unhealthy behaviors and reduce health risks as we cultivate a culture of health in our workplace and realize a valuable return on the investment we make in our health plan and these programs. We are proud to empower better health for our 47,000 employees and their families and be considered for the 2020 C. Everett Koop National Health Award.

Sincerely,

A handwritten signature in black ink, appearing to read "Jay Wohlgemuth".

Jay Wohlgemuth, MD, Senior Vice President, Chief Medical Officer



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