Published in final edited form as:

Am J Health Promot. 2019 June ; 33(5): 652–665. doi:10.1177/0890117119842047.

Results of the Workplace Health in America Survey

Laura A. Linnan, ScD[1], **Laurie Cluff, PhD**[2], **Jason E. Lang, MPH, MS**[3], **Michael Penne, MPH**[4], and **Maija S. Leff, MPH**[1]

[1]Department of Health Behavior, UNC Gillings School of Global Public Health, Chapel Hill, NC, USA

[2]Social Policy, Health, & Economics Research Unit, RTI International, HollySprings, NC, USA

[3]National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, GA, USA

[4]Behavioral Statistics Program, RTI International, Holly Springs, NC, USA

Abstract

Purpose: To provide a nationally representative snapshot of workplace health promotion (WHP) and protection practices among United States worksites.

Design: Cross-sectional, self-report Workplace Health in America (WHA) Survey between November 2016 and September 2017.

Setting: National.

Participants: Random sample of US worksites with ≥10 employees, stratified by region, size, and North American Industrial Classification System sector.

Measures: Workplace health promotion programs, program administration, evidence-based strategies, health screenings, disease management, incentives, work-life policies, implementation barriers, and occupational safety and health (OSH).

Analysis: Descriptive statistics, *t* tests, and logistic regression.

Results: Among eligible worksites, 10.1% (n = 3109) responded, 2843 retained in final sample, and 46.1% offered some type of WHP program. The proportion of comparable worksites with *comprehensive* programs (as defined in Healthy People 2010) rose from 6.9% in 2004 to 17.1% in 2017 ($P < .001$). Occupational safety and health programs were more prevalent than WHP programs, and 83.5% of all worksites had an individual responsible for employee safety, while

Corresponding Author: Jason E. Lang, Division of Population Health, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 4770 Buford Highway NE, MS S107-6, Atlanta, GA 30341, USA. jlang@cdc.gov.

The findings and conclusions in this article are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Supplemental Material

Supplemental material for this article is available online.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

only 72.2% of those with a WHP program had an individual responsible for it. Smaller worksites were less likely than larger to offer most programs.

Conclusion: The prevalence of WHP programs has increased but remains low across most health programs; few worksites have comprehensive programs. Smaller worksites have persistent deficits and require targeted approaches; integrated OSH and WHP efforts may help. Ongoing monitoring using the WHA Survey benchmarks OSH and WHP in US worksites, updates estimates from previous surveys, and identifies gaps in research and practice.

Keywords

workplace health promotion; occupational safety and health; work-life balance; Centers for Disease Control and Prevention; National Institute for Occupational Safety and Health; cross-sectional survey; surveys and questionnaires; public health surveillance; employer surveys

Purpose

The workplace remains an important place for supporting and promoting health and safety, given the fact that more than 60% of US adults are employed and spend a majority of their daily waking hours at work.[1] Over the past 3 decades, the US federal government has sponsored 4 different surveys (1985, 1992, 1999, and 2004) to assess the extent to which employers offer workplace health promotion (WHP) programs, policies, and practices.[2–5] These data have typically been evaluated by work-site size and industry and sometimes by geographic region. The benefits of conducting national employer surveys include monitoring worksite-based programming growth over time, understanding trends and emerging issues, identifying gaps in the utilization of evidence-based programs, policies and practices across the country, and linking outcomes and progress to national health priorities such as Healthy People. This article will describe results of the 2017 Workplace Health in America (WHA) Survey, the most recent nationally representative survey of employers sponsored by the US Centers for Disease Control and Prevention (CDC); it will also compare changes in key items from the 2004 government survey.[5]

Several other national surveys of employers have been conducted in recent years, but they have not represented all types of employers. In 2012, the RAND Workplace Wellness Programs Study[6] surveyed public and private employers with 50+ employees but did not survey smaller employers (eg, less than 50 employees which represent a large proportion of US businesses). The Harris Poll Neilson Survey[7] (fielded in 2015) was a nationally representative survey of for-profit businesses with 50+ employees. This survey was unique in that it gathered both employer and employee feedback. The Staying@Work Willis Towers Watson Survey[8] (fielded in 2015) focused on large employers, only sampling those with 1000+ employees. The annual Kaiser Employer Health Benefits Survey[9] surveys only nonfederal public and private employers with 3+ workers that offer health benefits to their employees; thus, results do include employers of all sizes but only those that offer employees health benefits.

DeJoy et al[10] noted that previous surveys failed to capture information on the quality and effectiveness of WHP programs. The WHA Survey takes some small but important steps in

this regard by adding questions to assess which evidence-based strategies were offered, who managed the program, and estimates of employee participation for each type of health program offered. However, detailed or objective measures of program quality and effectiveness (eg, direct links between programming and employee health) may be better assessed through site visits, archival employer records, and/or other employee surveys linked to employer data.

DeJoy and colleagues[10] also recommended that future surveys strive to create systematic processes for collecting, maintaining, and comparing data sets. The WHA Survey has created a platform to enable easy access to the survey instrument, the data set, and an online dashboard presenting key outcomes as part of its overall dissemination efforts (https://www.cdc.gov/workplacehealthpromotion/data-surveillance/index.html). We believe the 2017 WHA Survey documentation and publicly available data can serve as an important link to the past and bridge to future planning and benchmarking of WHP and protection activities.

Methods

Survey Development

A full listing of all expert contributors to the survey planning and development process is found at https://www.cdc.gov/workplacehealthpromotion/data-surveillance/index.html.

A national Steering Committee including experts in workplace health and safety guided the survey development process. A Data User Group provided input on what types of data employers and other key stakeholders would find most valuable. A Survey Development Team made up of CDC subject matter experts, RTI International, the University of North Carolina at Chapel Hill, and several national experts in workplace survey design created domains, reviewed a data dictionary of items from 16 employer surveys, conducted cognitive interviews, and pilot tested the final draft version of the instrument before it was launched. RTI's institutional review board exempted the survey (study #0214531) because the subject of data collection was the worksite, not a human subject. The instrument was designed to move the field forward by addressing rapidly evolving practices or emerging issues such as sleep, Total Worker Health® (TWH), and work–life benefits and to allow for comparisons with past surveys and more traditional program elements. For example, the WHA Survey reports on the 5 key elements of a "comprehensive" program, which was first measured in the 2004 national survey. To reduce respondent burden, we included 204 items deemed most critical to the survey's objectives in the "core" section of the survey and 41 other items in a "supplemental" section that followed the core section. All survey respondents were invited to complete both the core and the supplemental section. A copy of the final survey instrument is available at https://www.cdc.gov/workplacehealthpromotion/data-surveillance/index.html.

Design and Sample

The WHA Survey gathered information from a cross-sectional, nationally representative sample of US worksites. The sample was drawn from the Dun & Bradstreet (D&B) database of 2.5 million private and public employers in the United States with at least 10 employees.

Like previous national surveys, we included specific worksites rather than the companies to which the worksites belonged. We selected worksites using a stratified simple random sample design, where the primary strata were 10 multistate regions plus an additional stratum containing all hospital worksites. The hospital worksites were assigned to their own primary stratum to ensure a sufficient sample size. Within each CDC region stratum, we further stratified by worksite size (10–24 employees, 25–49 employees, 50–99 employees, 100–249 employees, 250–499 employees, 500–749 employees, 750–999 employees, and 1000 employees or more) and 7 combined industry groups based on the North American Industry Classification System sectors (see Table 1 for groups). We selected the number of worksites per size and industry group based on proportional allocation to the population of worksites.

Data Collection Procedures

Trained interviewers contacted each sampled worksite by telephone to recruit the individual who was "most knowledgeable about employee health and safety at the worksite." Interviewers also confirmed each worksite met eligibility criteria of having at least 10 employees and being in operation for least 12 months. Respondents had the choice of completing the survey using 1 of 3 modes: the web (86.6%), telephone interview (8.6%), and mailed paper survey (4.9%). The survey took about 40 minutes to complete. The data collection protocol included reminder e-mails to worksites that requested, but did not complete, the web survey and follow-up phone calls to all worksites that had not completed the survey. To improve response to the survey, we also e-mailed postcards, alerting worksites that we would be contacting them to complete the survey. We also offered respondents free access to expert webinars on how to implement low-cost health promotion programs at work as an incentive.

Measures

We used previous items from the 2004 survey and 15 other national workplace-related surveys (See lemental Data 1: Reference surveys reviewed to help develop the WHA Survey). Key measures included presence of WHP programs, evidence-based strategies, health screenings, disease management programs, incentives, work–life policies, barriers to health promotion program implementation, and occupational safety and health. Consistent with the 2004 national survey, "comprehensive" health promotion programs were defined as those that incorporated all of the 5 key elements outlined in Healthy People 2010: (1) health education programs, (2) supportive social and physical work environment, (3) integration of the program into the organization's structure, (4) linkage to related programs such as employee assistance programs (EAPs), and (5) health screening with appropriate follow-up and education.[11] Most WHA Survey items were dichotomous (eg, "Did you offer any programs to address physical activity for your employees?"), and the remaining items had multiple categorical response options to elicit more detailed information. For example, a question asking about the percentage of employees that participated in physical activity programs in the past 12 months had 4 response options: "1%−25%, 26%−50%, 51%−75%, or more than 75%."

Analysis

Data management and prevalence estimation (including variances) were conducted with a combination of SAS (V9.4) and SUDAAN (V11.0.1). We computed analysis weights as the inverse of selection probabilities, adjusted for both nonresponse and coverage. The weights reflect the D&B total number of worksites in each region, size, and industry category, representing approximately 2.5 million worksites. Variances were estimated using first-order Taylor series approximations of deviations of estimates to expected values, accounting for stratification and unequal weighting. Estimates for each measure included weighted population totals, means/percentages, standard errors, and 95% confidence intervals. We excluded respondents with missing or nondeterminant (eg, don't know, refused) item data from analyses with that particular item. We used the standard t test to determine statistically significant differences comparing estimates between worksite size or industry groups. When reporting differences based on size, "largest worksites" refer to those with 500 or more employees and "smallest worksites" are those with 10 to 24 employees. We used multivariable logistic regression to assess worksite characteristics associated with the presence of a comprehensive health promotion program. Levels of statistical significance were set at $P < .05$. Only worksites with health promotion programs were asked about the topics and types of programs, health screenings, and disease management services they offered. Conservatively, worksites reporting no health promotion program were also coded as not having any specific type of health promotion, screening, or disease management program or service.

Results

Sample Description

We sampled 35,584 worksites and eliminated 4721 as ineligible, most commonly because they had fewer than 10 employees. A total of 3109 worksites completed some portion of the survey (10.1% of the eligible cases using AAPOR RR method 2 for the calculation). For the final sample, we retained 2843 cases that met completion criteria of answering the item about having a health promotion program or answering at least 50% of the survey items. Table 1 presents the unweighted sample worksites in each of the size, industry, and regional categories. The largest percentage of worksites (41.3%) was in the smallest size category (10–24 employees), followed by 23.0% of the sample in the 25 to 49 employee size category. Among 2843 complete cases, 1255 also completed the supplemental survey and did not significantly differ from the overall sample on size, industry, region, or presence of health promotion program. The largest percentage of respondents reported they were affiliated with human resources or benefits (32.4%), while 6.3% reported being the worksite's office manager/administrator and 5.9% reported being the general manager. For full-time employees, 39.1% of worksites offered full payment of health insurance premiums, 45.6% offered partial payment, and 79.6% offered family health insurance coverage. Larger worksites were more likely to offer health insurance benefits overall.

The remainder of the results section describes how health promotion programs were administered and supported, followed by the type of health promotion programming offered, health screenings and disease management programming offered, specific health promoting

environmental supports and policies (including work–life policies) in place, and occupational safety and health practices conducted. We conclude with results for comprehensive health promotion programs and a comparison of the 2017 WHA results with the 2004 WHP survey results. As space permitted, results appear in tables and are reported in the text for items with categorical answers or with meaningful industry group differences. The survey instrument, datafile, and the national, industry group, size group, and regional group estimates for most variables are available at https://www.cdc.gov/workplacehealthpromotion/data-surveillance/index.html

Administration and Support of Health Programming

Overall, almost half of all worksites offered some type of health promotion or wellness program (46.1%; Table 2). Significantly lower percentages of worksites in the 2 smallest size categories offered programs compared to worksites in the 4 larger size categories ($P < .001$). Public administration and hospital industry groups were significantly more likely than worksites from the other 5 industry groups to offer health programs ($P < .001$). Program experience varied among work-sites with a health promotion program: 10.1% had programs in place for less than 1 year, 20.6% for 1 to 2 years, 32.9% 3 to 5 years, 16.5% 6 to 9 years, and 19.8% 10 years or more. Among worksites with a health promotion program, 46.1% agreed that their organization includes references to employee health in the mission statement or business objectives; this was true especially among the largest worksites (61.6% of sites with 500+ employees) compared to smaller worksites (44.6% of sites with 25–49 employees).

Most worksites with health promotion programs had at least 1 person assigned responsibility for the program (72.2%). A majority of worksites with a health promotion program reported it was primarily managed by their own employees (62.3%), compared to programs managed by vendors (21.5%) or programs managed by health insurance providers (16.2%). Moreover, 41.0% of worksites with programs had no wellness or safety committee, 21.2% had separate health promotion and safety committees, 17.5% had a combined health promotion and safety committee, 12.5% had just a safety committee, and 7.9% had just a health promotion committee.

Among worksites with a health promotion program, the annual budget available to spend on health promotion programs varied: 35.6% reported having no annual budget; 11.0% had < $1000; 11.5% had $1000 to $5000; 13.5% had $5001 to $20 000; and 28.4% had more than $20 000. Most of the work-sites with a program reported planning to spend about the same amount in the coming year (79.4%), 17.5% planned to spend more, and 3.1% planned to spend less.

Regardless of size or industry type, most worksites with health programs agreed that senior leadership (84.2%) and middle management (83.4%) were visibly committed to employee health and safe work environments. More than half (58.9%) of the worksites with programs had an annual health promotion plan. Of those with plans, a majority (65.3%) endorsed having measurable objectives, 88.8% included communication strategies to promote and market the program to employees, and 77.8% reported there was clear responsibility for implementing components.

Among worksites with programs, 53.3% used data to help decide what to offer and 50.2% used data to evaluate their program. While nearly all (98.3%) of the worksites that used data to evaluate their program used employee participation data, other highly endorsed sources of data included employee program feedback (89.7%), changes in employee health risk behaviors (78.1%), health-care claims costs (73.1%), worker compensation claims (60.7%), and return on investment (57.2%). We assessed the use of health risk assessments (HRAs) by all worksites in the sample (not just among those with health promotion programs). Overall, while 25.5% of the worksites had offered an HRA in the past 12 months (Table 2), there were significant differences by size as 21.6% of worksites with 10 to 24 employees offered an HRA compared to 52.0% of worksites with 250 to 499 and 68.7% of worksites with 500 or more employees ($P < .001$).

About half (53.0%) of the worksites with programs offered incentives. The largest worksites were more likely to offer incentives (78.0%) than any of the smaller size worksites. The most common type of incentives offered were gifts or prizes (offered by 64.4% of those offering incentives), cash (53.1%), and premium discounts (52.6%). Of those offering incentives, 82.3% offered incentives tied to program participation, 30.6% tied to achieving a health standard, and 30.8% tied to both participation and achieving a health standard. When asked how effective they considered the incentives they used, less than half (48.1%) reported the incentives were “somewhat effective” for achieving intended outcomes, 34.2% rated their incentives as “effective,” 11.2% rated them as “extremely effective,” while 6.5% rated them as “not at all effective.”

All worksites were asked about 12 potential barriers or challenges to offering health promotion programs; we report the most challenging here. Cost was rated as challenging or extremely challenging by 57.5% of all worksites, followed by competing business demands (41.7%), lack of employee interest (37.5%), lack of experienced staff (32.9%), lack of physical space (30.4%), and demonstrating program results (24.7%). Reviewing the 2 most commonly endorsed challenges in more depth, we found there were no significant differences on ratings of cost or competing business demands based on worksite size. And, no differences on the cost barrier existed between work-sites with a health promotion program (56.7%) versus those not offering a health promotion program (58.4%). However, work-sites with a health promotion program were slightly more likely (45.4%) than those without a program (39.4%) to rate competing business demands as challenging or extremely challenging.

Health Promotion Programming

We assessed the prevalence of 9 categories of health topics and related evidence-based strategies. Larger worksites were more likely than smaller worksites to offer nearly all types of health programs (Table 2). Physical activity programs (offered by 28.5% of all worksites) and nutrition programs (offered by 23.1 % of all worksites) were the 2 most prevalent, so we report on them in more detail, including information about the type of programs offered, who offered the program, and an estimate of employee participation. These data are available for all 7 additional health topics.

Among those offering physical activity programs, 57.9% offered a combination of informational and skill-building programs, nearly a third offered information only, and 12.9% offered skill-building only. Over a third (37.6%) reported their physical activity programs were offered mostly by the employer, 11.9% by the health plan, 8.1% by a vendor, and 42.4% by combination of employer, health plan, or vendor. About half (49.2%) estimated that 1% to 25% of the employees participated in the physical activity program during the past 12 months, 35.1% estimated 26% to 50% participated, and 15.8% estimated more than half of the employees participated.

For nutrition programs, 52.5% offered information and skill-building, 43.0% offered information only, and 4.6% offered skill-building only. About a third (32.5%) were offered mostly by the employer, 11.1 % by the health plan, 13.0% by a vendor, and 43.4% by combined efforts of the employer, health plan, or a vendor. Half estimated that 1% to 25% of employees participated during the past year, 20.4% estimated 26% to 50% participated, and 28.9% estimated that more than 50% of employees participated.

For most other health promotion topics, at least half of the worksites offered information only, with most of the others offering a combination of information and skill-building. Across all health promotion topics, employers or a combination of the employer, health plan, and vendor were most likely to be offering programs. Respondents' estimates of employee participation for other types of programs were concentrated mostly at 1% to 25%, with the exception of musculoskeletal disorders, where 39.6% estimated having 1% to 25% employee participation and 44.4% estimated having over 75% employee participation.

For each health topic, we assessed the extent to which specific evidence-based strategies consistent with the CDC Community Guide and/or the CDC Worksite Health ScoreCard[12,13] were offered. For example, 15.3% of all worksites reported offering self-management programs with advice on physical activity, and 8.8% of all worksites offered physical fitness assessments and follow-up counseling. Regarding evidence-based strategies for tobacco cessation, approximately 17.5% of all worksites provided insurance coverage for tobacco cessation medications, 15.9% provided free or subsidized cessation counseling, 12.3% referred users to a tobacco cessation telephone quit line, and 7.5% helped remove barriers to accessing cessation treatments, like copayments and prior authorization requirements.

Health-Related Screenings and Disease Management Programs

Respondents were asked whether they had offered health screenings to employees in the past 12 months. The most prevalent screenings offered were blood pressure (22.5% of all worksites offered this), blood cholesterol (19.7%), diabetes/prediabetes (19.0%), and obesity (18.2%; Table 2).

Respondents were also asked whether disease management programs were provided, including programs offered by the employer, health plan, or a third-party vendor. The most prevalent types of disease management programs offered were for hypertension (19.7% of all worksites offered this), diabetes or prediabetes (19.5%), blood cholesterol (18.9%), and obesity (18.6%; Table 2). For all types of screenings and for each disease management topic, large worksites were more likely than small worksites to offer programs. The most common

approach to disease management was providing information (e.g., brochures, newsletters), with fewer than half of those with disease management programs offering one-on-one counseling and/or follow-up. Nearly a third (29.8%) of all worksites made flu shots available to employees (22.4% of all worksites offered these onsite), and the percentage offering flu shots ranged from 23.3% among smallest worksites to 87.5% of the largest worksites.

Environmental Supports and Policies

A health-supportive work environment includes policies, physical/structural changes, and benefits. Overall, larger worksites were more likely than smaller sites to offer a wide array of environmental supports and policies (Table 3). For example, 16.3% of all worksites had some type of environmental support for physical activity (eg, trails/tracks, bike racks, showers, and changing rooms) and 8.2% offered employees paid time to be physically active. Just over 40% provided food preparation and storage facilities for employees, 16.2% had an on-site cafeteria or snack bar, and 10.1% had a written policy making healthier food and beverages available during meetings where food is served (Table 3). Among worksites with food available for purchase on-site, 26.4% had a policy in place to make healthier choices available. Over 30% of all worksites had a written policy to restrict smoking, 28.9% of worksites displayed signs including no smoking signs, and 19.4% had a policy banning all tobacco use at the worksite.

For disease management, making a blood pressure–monitoring device available for employees to use at work was not very common (4.8% of all worksites offered this), but the largest worksites were most likely to offer this on-site (22.0%; Table 3). On-site health clinics, available at just 7.6% of all worksites, were also most common in the largest sites (39.5%).

Work–Life Benefits and Policies

Table 3 presents estimates related to work–life benefits and policies. Fewer than half of all worksites (45.1%) offered EAPs, 31.7% for employees and their families, and 13.4% for employees only. Most worksites (55.3%) offered flexible work schedules, and 35.8% allowed employees to work from home. The largest worksites (69.8%) were more likely than smaller worksites to allow employees to work from home. Only 27.1% of worksites helped employees cover childcare costs through direct reimbursement or flexible spending accounts. However, most (76.5%) worksites allowed unpaid parental leave, and 42.8% offered paid family leave for new parents.

Occupational Safety and Health

Overall, 83.5% of all worksites reported having at least 1 person responsible for employee safety (Table 3), and 33.4% among those reported that this person was also responsible for promoting health or wellness. Overall, 69.4% of all worksites have a written injury and illness prevention program, while about 91% of worksites with more than 250 employees have a program (Table 3). Most worksites (69.8%) report that efforts to protect and promote worker health included improved work design and work environment, along with worker education. The following training topics were identified as most useful to people responsible for employee health and safety at their worksites: best practices for employee safety and

health promotion (75.5%); laws, regulations, and standards related to employee health and safety (55.6%); conducting health and safety risk assessments (53.2%); and program planning, implementation, and evaluation (45.9%).

Comprehensive Health Promotion Programs

Each of the 5 specific elements of a comprehensive health promotion program were present in less than 50% of worksites: supportive social and physical environments (47.8% of all worksites reported this), linkages to related programs (46.0%), health education programs (33.7%), integration of the program into the organization's structure (28.4%), and health screenings with appropriate follow-up and education (26.6%; Table 3). Overall, 11.8% of worksites offered all 5 key elements of a comprehensive WHP program. Larger worksites (250+ employees) were both more likely to report having any 1 of the 5 elements, as well as more likely to report having all 5 key elements, as compared to smaller worksites. Worksites in the hospital industry (35.7%) were more likely to have a comprehensive program than any other industry group.

The 2004 national survey identified several factors that were found to be independent predictors of having a comprehensive health promotion program: employer size, experience with offering a comprehensive program, industry sector, having a responsible person, and a budget.[5] Among all 2017 respondents, we did a similar analysis and have summarized both the unadjusted and the adjusted models (Table 4). Similar to 2004, in the unadjusted model, we found that all of these factors were significant independent predictors of having a comprehensive program. In the adjusted model, after controlling for all other variables, worksites with a person assigned responsibility for the health promotion program had 8.14 times the odds of having a comprehensive program ($P < .001$), worksites with an annual budget had 6.99 times the odds ($P < .001$), and sites with more than 5 years of health program experience had 3.08 times the odds of having a comprehensive program ($P < .001$). Only the 50- to 99-size employer group had lower odds of offering a comprehensive program compared to the reference category when controlling for all other model variables ($P = .004$); the industry group that included arts, entertainment, recreation, accommodations and food service had significantly greater odds of offering a comprehensive program compared to the reference group ($P = .030$).

Changes in Comprehensive Programming: 2004 to 2017

To make appropriate comparisons between the previous (2004) and 2017 survey results, we adjusted the 2017 sample by removing public administration worksites and those with less than 50 employees. Once the sample was adjusted, we found a significantly higher percentage of worksites had any 1 of the 5 comprehensive health promotion program elements in 2017 compared to 2004, and more than twice as many had all 5 elements in 2017 compared to 2004 (17.1% vs 6.9%, $P < .001$; Table 5). Significantly higher percentages of worksites in 2017 offered physical activity ($P < .001$), nutrition ($P = .001$), tobacco ($P = .002$), weight management ($P = .015$), and EAPs ($P < .001$), compared to worksites in 2004. The percentages of worksites offering the 3 most common types of health screenings (eg, blood pressure, cholesterol, and diabetes) were not very different from 2004 to 2017. There were few changes in the percentages of worksites offering disease

management programs between 2004 and 2017. While the percentage offering obesity management programs significantly increased from 16.4% in 2004 to 26.0% in 2017 ($P < .001$), the percentage offering high-risk pregnancy management programs decreased from 18.6% in 2004 to 14.2% in 2017 ($P = .048$).

Discussion

Over a decade has passed since the 2004 federally funded national survey of WHP programs was conducted. Like the previous surveys, the current survey offers a snapshot in time of the status of workplace health and safety among a nationally representative sample of worksites. However, we also had an opportunity to monitor progress on a core set of items that were comparable to the 2004 survey. Specifically, after adjusting to create comparable samples (eg, excluding worksites with less than 50 employees and those in public administration), 2017 results indicate that for all health program areas (eg, physical activity, nutrition, tobacco cessation) except for stress, there were significant increases reported between 2004 and 2017. While this is encouraging, it is critically important to realize that less than half of responding workplaces overall (46%) report offering any health programming, and less than one-third of responding worksites offered each of the health topics we queried them about. In part, this is not surprising since the WHA Survey sample had a bigger proportion of smaller work-sites that tend to have fewer programs. These results are similar to the RAND Workplace Wellness Programs Study,[6] where 51% of responding workplaces offered any wellness programs, and among workplaces with programs, nutrition/weight, smoking, and fitness programs were most common. Also like the WHA Survey, in all cases, larger workplaces offered more programming than did smaller workplaces. Clearly, work must be done to convince employers that it makes good business sense to offer health programming and/or incentivize them to offer a healthy work environment for their employees.

What have we learned about why employers choose not to offer these programs? In the WHA Survey, all responding employers, including those who reported they did not offer any type of health programming, were asked to rate the extent to which different potential barriers might prevent them from offering health programming for their employees. “Cost” was rated as challenging by the greatest number of respondents, but there were few differences by size of workplace, sector, or even whether a health program was in place (or not). It can be difficult to ascertain through surveys why employers do not offer health programming. This is an area that warrants additional research, potentially through structured interviews or focus groups with different types and sizes of employers.

Surprisingly, while the WHA Survey results revealed health programming increased slightly between 2004 and 2017, there were no significant differences in health screening programs or disease management programs during that time period with 2 exceptions. Obesity programming significantly increased, likely because of the widely acknowledged epidemic of obesity among US adults; high-risk pregnancy programming experienced a significant decrease, despite the high rates of maternal mortality in the United States. We must be cautious when comparing these results to other recent national employer surveys because most did not include employers with less than 50 employees, and most were not a nationally representative sample. However, within specific employer size categories, we do observe

some similar results. For example, the Kaiser Survey,[9] among employers that offer health benefits, found that 62% of large employers (200+ employees) offered an HRA and 67% offered weight loss programs. This is comparable to the finding for large employers in the WHA Survey, where 69% of large employers (500+ employees) offered an HRA and 66% offered weight loss programs.

Beyond considering single health programs, which may be limited in reach and impact, the 2017 WHA Survey documented that 11.8% of all worksites reported offering all 5 key elements of a "comprehensive" health program. After adjusting the sample to allow for comparisons between 2004 and 2017, it is encouraging that 17.1% of worksites (vs 6.9% in 2004) reported having all 5 key elements of a comprehensive program. There were statistically significant differences over those 13 years in all 5 of the key elements. Positive and statistically significant gains were made both in the individual health programs and in the 5 key elements that comprise a comprehensive program. Thus, we observed important increases in the proportion of worksites with a comprehensive program as well as for a number of specific health topics. However, we cannot lose sight of the fact that fewer than 1 in 5 workplaces are offering a comprehensive health promotion program. Although few comparisons are available, the 2015 Harris Poll Nielsen Survey of for-profit businesses with 50+ employees found that just 13.3% offered a similarly defined comprehensive health program.[7] We acknowledge that refining the measurement of a "comprehensive" program may be helpful. Nevertheless, given that fewer than 20% of employers overall have offered a health promotion program that integrates health, safety, and benefits; provides administrative support; offers evidence-based health programming; provides screening programs with adequate education and follow-up; and creates an environment and policies that support health, it is clear that more work must be done to understand how and why employers decide to invest in these practices and how to best facilitate the adoption of these efforts.

Similar to 2004 survey results, we learned that employers with a responsible person assigned to provide WHP had significantly greater odds of having a comprehensive program, controlling for all other variables in the model. Similarly, worksites with an annual budget for health promotion or experience having a program in place for at least 5 years also had significantly greater odds of having a comprehensive program. Taken together, these results were quite similar to predictors of having a comprehensive program reported in 2004 and reinforce the importance of having dedicated staff, budget, and some experience if the goal is to offer a comprehensive worksite-based health promotion program, which is most likely to yield the best employee health and safety outcomes.[5]

Consistent with results from all previous national surveys,[2–5] and recent employer surveys,[6–9] in 2017, we observed that smaller worksites are less likely to offer any type of health program, policy, environmental support, or a host of other employee benefits and resources. This finding has persisted over the past 3 decades. While some progress has been made among small employers, this represents a gap that should be addressed. The WHA Survey results suggest that smaller work-sites are likely to offer safety-related programming, but we recognize this may be true because they are regulated by the Occupational Safety and Health Administration. While several promising interventions have emerged for small employers,[14–16] a clear disparity in access to health programming exists for the 59 million Americans

who work in small businesses.[17] Also consistent with previous national surveys, few differences by industry sector emerged with the exception of hospitals and worksites in the public administration sector that were generally more likely to offer health programming or policies than were other industry groups. Future research should clarify why these types of workplaces are more likely to offer health programming and determine whether there are best practices that might be shared across sectors.

New to the 2017 WHA survey was that for each health topic offered we asked follow-up questions, including an estimate of employee participation, the type of program management (ie, internal/external), and an inventory of a much broader set of evidence-based strategies than previous surveys. Questions about evidence-based strategies included those assessing whether worksites were employing policies, systems, or environmental interventions. Over the last decade, national health priorities have increasingly incorporated policies, systems, and environmental (PSE) approaches into public health programs as a means of initiating and sustaining healthy behavior change,[18] including the design of workplace health programs.[19–22] Policies, systems, and environmental approaches target the whole population and, when combined with traditional individually focused education and skill-building interventions, provide additional access and opportunity to achieve successful behavior change. However, evidence suggests[5,7,23] and the 2017 national survey results revealed that PSEs are often less prevalent when compared to individual-level interventions. It is important to note that results on PSEs may be underestimated because worksites that reported no health promotion programming (54% of all worksites) were skipped out of the questions on environmental supports and policies and assumed to have a “no” response to these questions. Yet we can certainly envision that worksites who report having no program in place might have a walking trail or cafeteria with healthy foods choices; our findings therefore are conservative estimates.

Employee participation in nearly all types of programs was estimated to be less than 25%. An exception was programming for musculoskeletal injury, back pain, and arthritis. Higher participation in these programs, we suspect, could be attributed to worksites requiring employees to participate in back injury prevention programs. Few other national surveys have asked about employee participation. Exceptions include the RAND Workplace Wellness Programs Study,[6] where the majority of employers reported less than 20% participation for most programming, and the Staying@Work Willis Towers Watson survey,[8] where participation was around 50% for HRAs and biometric screenings, but generally less than 10% for other health programming. Thus, employee participation remains relatively low in most health programs, which represents a limit on the potential impact of workplace health programming. Strategies to increase employee participation should consider factors beyond employee motivation by establishing realistic participation outcomes and by addressing access, cost, program design, and supervisor support.[24] Moreover, if designers do not engage employees in the development of programs, they may be creating interventions that do not meet the real needs and interests of their intended audiences. We agree with the recent commentary by Sherman[25] who clarifies the importance of employee engagement and the need to address social determinants of health as a fundamental premise of program design and implementation. By doing this well, employee participation in relevant

programing within a healthy and safe work-place may increase, and the long-term impact of health programming may improve.

The WHA Survey results revealed important insights about the use of evaluation assessments, administration of worksite health programming, governance structures, and incentives. Fifty percent of our respondents with programs reported their worksite used data to evaluate program success. However, follow-up questions about evaluation revealed that worksites doing evaluation were more likely to collect process metrics such as employee participation (98.3% of those doing evaluation) or employee feedback (89.7%), whereas complex evaluation activities such as calculating return on investment were rarer (only 57.2% of those doing evaluation reported this). This is in line with findings from other national surveys, where activities such as measuring employee satisfaction and participation were more common than measuring health outcomes or return on investment.[6,9] The authors of the 2015 Willis Towers Watson Staying@Work survey noted that "While there's plenty of utilization data—77% of employers measure program participation rates—only 46% measure the impact of the programs on participants' health, and even fewer (31%) measure the effects on productivity. As a result, leaders struggle to build compelling cases for strengthening their offerings or adding new ones—or, in some cases, even for maintaining them."[8(p13)] Interestingly, only one-quarter of WHA respondents identified "demonstrating program results" (eg, doing evaluation) as "challenging" or "extremely challenging" to their ability to offer health promotion programs. One interpretation of these findings is that many respondents view process evaluation activities as sufficient to support their worksite's health promotion programming. However, more detailed analyses (eg, by size, comprehensive vs noncomprehensive program, and current evaluation activities) are needed to understand the unique needs of different types of worksites as it pertains to building capacity for evaluation.

With regard to program administration, 72.2% of worksites with health promotion programming had a designated individual with responsibility for health programming, and 83.5% of all worksites had a designated individual responsible for employee safety. We observed important variation in the types of health or safety committees responding worksites had in place, including 41.0% of worksites with programs that had no employee wellness committee at all. Full engagement of employees in planning and implementing workplace health and safety programming has been demonstrated to build ownership, trust, and can help sustain programming over time.[26]

Results revealed that more than half of worksites with programs reported offering incentives. However, almost half of those offering incentives (48.1%) characterized them as only somewhat effective at achieving their intended outcomes, and 6.5% said they were not effective at all. Literature on the impact of incentives is still nascent,[27] but while incentives can increase participation in completing HRAs and other health programs, long-term effectiveness is mixed, and mismatches between the type of incentive and the expected outcome may reduce overall effectiveness.

WHA Survey results also indicate that more worksites are doing occupational safety and health programming and training than are doing health promotion programming. This is notable in light of NIOSH's TWH®[28] initiative, which seeks to integrate health protection

and health promotion to advance worker well-being. Because many employers have safety professionals and safety programs in place, training programs to build health promotion onto these efforts is a promising strategy for creating a healthy work environment. NIOSH has supported Centers of Excellence for TWH (https://www.cdc.gov/niosh/twh/centers.html) as well as a national network of TWH affiliates (https://www.cdc.gov/niosh/twh/affiliate.html) to advance research, practice, and training on integrated safety and health programing. The WHA Survey revealed training priorities of interest to worksites and should help affiliates and Centers clarify topics and methods that will best meet these training needs. Since knowledgeable and dedicated staff is crucial to having a comprehensive health program and staff will need training on how to best do integrated health promotion and health protection/safety programming, results provide some useful guidance for addressing training needs.

Strengths of the WHA Survey include the extensive and engaged survey development process that involved a Data User Group, expert input, cognitive interviewing, and pilot testing. Additionally, this survey created a sample that could be analyzed by CDC geographic region, worksite size, and industry sector, which is consistent with previous national surveys but also added new health topic domains, detailed information about each health topic offered, and additional questions on administration of health and safety programming. While we had a supplementary questionnaire, there were no differential responses between this group and the respondents to the primary questionnaire, which gives us greater confidence in our results.

Limitations of the survey include a low overall response rate, despite a rigorous protocol[29] that followed best practices in survey methodology. This response rate is consistent with the growing trend that survey response rates have diminished, especially among employer surveys. In the early 2000s, crosssectional household surveys saw response rates drop by as much as 2 percentage points annually.[30] The response rate (telephone) of the 2004 National Worksite Health Promotion

Survey was 59.7%.[5] More recently, the RAND Workplace Wellness Programs survey had a response rate of 19%,[6] the Kaiser Employer Health Benefits Survey had a 17% response rate among first-time respondents,[9] and the Employee Total Health Management survey (fielded with Iowa employers in 2012) had a response rate of 21.5%.[31] We conducted a nonresponse bias analysis for known characteristics (size, industry, and region) of responding and nonresponding worksites and found no systematic differences. If the survey outcomes of interest are related to other, unknown characteristics, there is potential for bias. For example, we cannot be certain whether worksites with health promotion programs or interest in health promotion were more likely to respond. The WHA Survey sample was drawn to be proportionally allocated across size and industry strata within each CDC region, and final analysis weights accounted for nonresponse and matched the frame-based distribution of eligible US worksites by region, size, and industry. Another limitation is that despite a standardized protocol, we cannot be sure we interviewed the most informed person on workplace health and safety at any given location. Finally, survey results are based on self-report from employers. There was no independent verification of responses to reduce concerns of social desirability bias nor was it possible to get employee data to complement

employer data. Future surveys would benefit from employee-level data like the Harris Poll Nielsen Survey.[7]

Results of the WHA Survey will be widely disseminated. A public datafile and dashboard through the CDC Workplace Health Promotion website (https://www.cdc.gov/workplacehealthpromotion/data-surveillance/index.html) will make these data publicly available. We believe this is an important strength of the survey and hope the national, industry, employer size, and regional-level estimates will be used to benchmark local, state, regional, and national objectives around workplace health and safety programming. Current and accurate data are also essential to identify needs and set priorities for research and practice; therefore, repeat administrations of the national survey on a regular interval would establish longitudinal data and allow for trend comparisons over time. Thirteen years between administrations hinders the progress that we can make in research and practice to strengthen both worker and work-place health.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

With gratitude to the WHA National Steering Committee, Data User Group, and WHA Survey Development Group for your insights and expertise that shaped the development of the WHA survey. Thank you to all participating worksite representatives for your time and contribution to advancing knowledge about US workers and worksites.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the CDC National Center for Chronic Disease Prevention and Health Promotion as a project by RTI International, sub-contract to University of North Carolina at Chapel Hill [contract number GS-10F-0097L/200–2014-F-60862].

References

1. Bureau of Labor Statistics. Economic News Release: Employment Situation Summary. August 2018 https://www.bls.gov/news.release/empsit.nr0.htm, Accessed September 9, 2018.
2. Fielding JE, Piserchia PV. Frequency of worksite health promotion activities. Am J Public Health. 1989;79(1):16–20. https://ajph.aphapublications.org/doi/pdfplus/10.2105/AJPH.79.1.16, Accessed August 27, 2018. [PubMed: 2909175]
3. Biener L, Betrera R, Curtis E. 1992 National Survey of Worksite Health Promotion Activities: Summary Report Washington DC: U.S. Public Health Service; 1993.
4. Association for Worksite Health Promotion, William M Mercer Inc, US Department of Health and Human Services Office of Disease Prevention and Health Promotion. National Worksite Health Promotion Survey. Washington, DC: U.S. Department of Health and Human Services;1999.
5. Linnan L, Bowling M, Childress J, et al. Results of the 2004 national worksite health promotion survey. Am J Public Health. 2008;98(8):1503–1509. doi: 10.2105/AJPH.2006.100313. [PubMed: 18048790]
6. Mattke S, Liu H, Caloyeras JP, et al. Workplace Wellness Programs Study: Final Report. 2013 www.rand.org, Accessed September 10, 2018.
7. McCleary K, Goetzel RZ, Roemer EC, Berko J, Kent K, Torre HD LA. Employer and employee opinions about workplace health promotion (Wellness) programs. J Occup Environ Med. 2017; 59(3):256–263. doi: 10.1097/J0M.0000000000000946. [PubMed: 28267097]

8. Willis Towers Watson. Improving Workforce Health and Productivity: Connecting the Elements of Workplace and Culture: US Findings of Willis Towers Watson's 2015/2016 Staying@Work Survey. Willis Towers Watson; 2016.
9. Claxton G, Rae M, Long M, Damico A, Foster G, Whitmore H. 2017 Employer Health Benefits Survey. 2017 http://files.kff.org/attachment/Report-Employer-Health-Benefits-Annual-Survey-2017 Accessed February 22, 2019.
10. DeJoy DM, Dyal MA, Padilla HM, Wilson MG. National work place health promotion surveys: the affordable care act and future surveys. Am J Heal Promot. 2014;28(3):142–145. doi: 10.4278/ajhp.121212-CIT-602.
11. US Department of Health and Human Services. Healthy People 2010: Goals for the Nation Washington, DC: U.S. Department of Health and Human Services; 2000.
12. Centers for Disease Control and Prevention. Workplace Health Promotion: Worksite Health ScoreCard. 2016 https://www.cdc.gov/workplacehealthpromotion/initiatives/healthscorecard/index.html, Accessed March 1, 2018.
13. The Community Preventive Services Task Force. The Community Guide. 2005–2012. https://www.thecommunityguide.org/ Accessed August 30, 2018.
14. Sorensen G, Barbeau E, Stoddard AM, Hunt MK, Kaphingst K, Wallace L. Promoting behavior change among working-class, multiethnic workers: results of the healthy directions–small business study. Am J Public Health. 2005;95(8):1389–1395. doi: 10.2105/AJPH.2004.038745. [PubMed: 16006422]
15. Laing SS, Hannon PA, Talburt A, Kimpe S, Williams B, Harris JR. Increasing evidence-based workplace health promotion best practices in small and low-wage companies, Mason County, Washington, 2009. Prev Chronic Dis. 2012;9:E83 http://www.ncbi.nlm.nih.gov/pubmed/22480612, Accessed August 30, 2018.
16. McCoy K, Stinson K, Scott K, Tenney L, Newman LS. Health promotion in small business: a systematic review of factors influencing adoption and effectiveness of worksite wellness programs. J Occup Environ Med. 2014;56(6):579–587. doi: 10.1097/J0M.0000000000000171. [PubMed: 24905421]
17. US Small Business Administration Office of Advocacy. 2018 Small Business Profile. 2018 https://www.sba.gov/sites/default/files/advocacy/2018-Small-Business-Profiles-US.pdf, Accessed August 30, 2018.
18. Frieden TR. A framework for public health action: the health impact pyramid. Am J Public Health. 2010;100(4):590–595. doi: 10.2105/AJPH.2009.185652. [PubMed: 20167880]
19. Sorensen G, Stoddard AM, LaMontagne AD, et al. A comprehensive worksite cancer prevention intervention: behavior change results from a randomized controlled trial (United States). Cancer Causes Control. 2002;13(6):493–502. doi: 10.1023/A:1016385001695. [PubMed: 12195637]
20. Goetzel RZ, Henke RM, Tabrizi M, et al. Do Workplace health promotion (Wellness) programs work? J Occup Environ Med. 2014;56(9):927–934. doi: 10.1097/J0M.0000000000000276. [PubMed: 25153303]
21. Centers for Disease Control and Prevention. Workplace Health Model. 2016 https://www.cdc.gov/workplacehealthpromotion/model/index.html, Accessed August 6, 2018.
22. The National Institute for Occupational Safety and Health (NIOSH). Essential elements of effective workplace programs and policies for improving worker health and wellbeing. 2008 http://www.cdc.gov/niosh/docs/2010-140/pdfs/2010-140.pdf, Accessed August 6, 2018.
23. Meador A, Lang JE, Davis WD, et al. Comparing 2 national organization-level workplace health promotion and improvement tools, 2013–2015. Prev Chronic Dis. 2016;13:E136. doi: 10.5888/pcd13.160164.
24. Linnan LA, Sorensen G, Colditz G, Klar N, Emmons KM. Using theory to understand the multiple determinants of low participation in worksite health promotion programs. Heal Educ Behav. 2001;28(5):591–607. doi: 10.1177/109019810102800506.
25. Sherman BW. Predictors of health self-management program preference among lower-to-middle wage employed adults with chronic health conditions. the time is now for determining the role of social determinants: an editorial reaction to Dr Kneipp and colleagues. Am J Heal Promot. 2019;33(2): 170–171. doi: 10.1177/0890117118823162.

26. Henning R, Warren N, Robertson M, Faghri P, Cherniack M; The CPH-NEW Research Team. Workplace health protection and promotion through participatory ergonomics: an integrated approach. Public Health Rep. 2009;124(suppl 1):26–35. doi: 10.1177/00333549091244S104.

27. Terry PE. Incentives and Big E engagement. Am J Heal Promot. 2017;31(6):462–464. doi: 10.1177/0890117117737221.

28. The National Institute for Occupational Safety and Health (NIOSH). Total Worker Health. 2017 https://www.cdc.gov/niosh/twh/totalhealth.html, Accessed December 12, 2017.

29. Dillman DA, Smyth JD, Christian LM. Internet, Phone, Mail, and Mixed-Mode Surveys: The Tailored Design Method, 4th ed Hoboken, NJ: Wiley; 2014.

30. Brick JM, Williams D. Explaining rising nonresponse rates in cross-sectional surveys. Ann Am Acad Pol Soc Sci. 2013;645(1): 36–59. doi: 10.1177/0002716212456834.

31. Merchant JA, Lind DP, Kelly KM, Hall JL. An employee total health management-based survey of iowa employers. J Occup Environ Med. 2013;55:S73–S77. doi: 10.1097/J0M.0000000000000045. [PubMed: 24284757]

SO WHAT?

What Is Already Known on This Topic?

Several national employer surveys have been conducted in recent years, but they have not represented all types of employers

What Does This Article Add?

Some progress has been made in workplace health promotion among US worksites; more worksites are offering health promotion programs, including comprehensive programs. Yet, fewer than 1 of 5 worksites offer comprehensive health promotion programs. Physical activity and nutrition programs are the most prevalent, yet <30% of all employers offer them.

Small employers (which represent over 98% of all employers) consistently offer fewer health programs, services, or policies.

What Are the Implications for Health Promotion Practice or Research?

Regular, repeated surveys of employers to assess WHP and OSH programming would improve benchmarking and give both practitioners and researchers an opportunity to identify gaps in research and practice and monitor progress over time. Linking employee-level data to employers would provide additional, useful information to monitor impact of WHP, OSH, and integrated health programming efforts.

Employers are more likely to offer safety than health programming, especially among smaller employers. Integrated workplace safety and health programs like those endorsed by the NIOSH Total Worker Health® initiative may represent a promising approach for improving efforts to increase the prevalence and impact of work0place safety and health for employees in all sizes and types of workplaces.

Table 1.

Unweighted Sample Frequencies and Percentages for Size, Industry, and Regional Categories.

	Unweighted Frequencies	Unweighted Percentages
Total Sample	2843	100.0
Size based on number of employees		
10–24	1175	41.3
25–49	655	23.0
50–99	365	12.8
100–249	263	9.3
250–499	131	4.6
500+	254	8.9
Industry Category		
1: Agriculture, Forestry, Fishing; Mining; Utilities; Construction; Manufacturing	525	18.5
2: Wholesale/Retail Trade; Transportation; Warehousing	311	10.9
3: Arts, Entertainment, Recreation; Accommodations and Food Service; Other Services	433	15.2
4: Information; Finance; Insurance; Real Estate and Leasing; Professional, Scientific, Technical Services; Management; Administration Support; Waste Management	429	15.1
5: Education Services; Health Care & Social Assistance	551	19.4
6: Local, State and Federal Public Administration	256	9.0
7: Hospitals	338	11.9
CDC Region		
1: CT, ME, MA, NH, RI, VT	215	7.6
2: NJ, NY	166	5.8
3: DE, DC, MD, PA, VA, WV	251	8.8
4: AL, FL, GA, KY, MS, NC, SC, TN	340	12.0
5: IL, IN, MI, MN, OH, WI	322	11.3
6: AR, LA, NM, OK, TX	273	9.6
7: IA, KS, MO, NE	413	14.5
8: CO, MT, ND, SD, UT, WY	311	10.9
9: AZ, CA, HI, NV	216	7.6
10: AK, ID, OR, WA	336	11.8

Abbreviation: CDC, Centers for Disease Control and Prevention.

Table 2.

Selected Health Promotion Programs, Health Screenings, and Disease Management by Worksite Size.[a]

Programs or Activities	Total, % (95% CI)	10–24, % (95% CI)	25–49, % (95% CI)	50–99, % (95% CI)	100–249, % (95% CI)	250–499, % (95% CI)	500+, % (95% CI)
Programs							
Any health promotion program	46.1 (43.7–48.6)	39.5 (36.1–42.9)	43.9 (39.1–48.7)	59.6 (52.4–66.4)	69.4 (59.9–77.6)	83.0 (72.0–90.2)	91.8 (86.4–95.2)
Physical activity	28.5 (26.2–30.8)	24.7 (21.7–28.0)	23.7 (19.8–28.1)	35.7 (28.5–43.5)	48.0 (39.3–56.9)	63.8 (51.2–74.7)	75.8 (67.7–82.4)
Nutrition	23.1 (21.1–25.4)	19.8 (17.1–22.9)	20.0 (16.3–24.4)	27.1 (20.6–34.6)	39.9 (31.4–49.0)	59.5 (46.0–71.7)	75.6 (67.8–82.0)
Stress	19.6 (17.7–21.8)	17.1 (14.5–20.0)	15.3 (12.1–19.3)	22.6 (16.6–29.9)	39.0 (29.8–49.2)	43.3 (30.8–56.7)	73.1 (64.7–80.1)
Tobacco	18.5 (16.7–20.5)	16.1 (13.7–18.9)	14.2 (11.1–18.1)	21.4 (16.2–27.8)	35.0 (26.1–45.0)	46.1 (34.3–58.4)	73.5 (65.0–80.5)
Weight control	17.4 (15.6–19.4)	14.0 (11.7–16.6)	14.4 (11.1–18.5)	23.4 (17.9–29.9)	33.9 (25.2–43.8)	45.3 (31.8–59.5)	66.3 (57.7–74.3)
Alcohol/drug use	14.4 (12.7–16.4)	14.0 (11.6–16.7)	10.8 (8.0–14.4)	12.4 (8.8–17.2)	26.2 (18.2–36.2)	33.5 (22.3–47.0)	52.3 (43.0–61.5)
Musculoskeletal/arthritis/back pain	12.1 (10.6–13.9)	12.0 (9.8–14.5)	7.6 (5.4–10.5)	9.7 (6.3–14.5)	26.3 (18.3–36.2)	31.0 (18.8–46.5)	41.0 31.2–51.5)
Sleep	9.9 (8.3–11.6)	10.0 (8.0–12.5)	6.4 (4.2–9.7)	9.6 (5.5–16.3)	17.5 (10.7–27.4)	Suppressed	31.7 (22.9. 42.0)
Lactation support	7.6 (6.3–9.1)	4.8 (3.4–6.6)	6.7 (4.5–9.9)	11.8 (7.0–19.1)	18.0 (11.6–26.9)	16.8 (10.0–26.9)	58.6 (48.9–67.7)
Screenings							
Health risk assessment	25.5 (23.3–27.9)	21.6 (18.7–24.9)	23.1 (19.0–27.8)	31.3 (24.4–39.5)	43.9 (35.7–52.4)	52.0 (39.1–64.6)	68.7 (59.3–76.8)
Blood pressure	22.5 (20.5–24.6)	19.0 (16.4–22.0)	18.5 (14.9–22.7)	27.0 (21.1–33.9)	44.8 (36.2–53.8)	51.0 (37.4–64.5)	79.0 (71.7–84.8)
Cholesterol	19.7 (17.7–21.7)	16.8 (14.2–19.7)	15.7 (12.4–19.8)	22.9 (17.6–29.3)	41.3 (33.0–50.1)	46.0 (33.0–59.6)	60.2 (50.9–68.8)
Diabetes	19.0 (17.2–21.0)	16.2 (13.7–19.0)	15.3 (12.0–19.2)	21.3 (16.2–27.5)	41.5 (33.2–50.3)	46.3 (33.0–60.0)	61.8 (52.6–70.2)
Obesity	18.2 (16.3–20.3)	16.0 (13.6–18.8)	14.5 (11.2–18.5)	18.5 (12.9–25.8)	38.1 (29.7–47.4)	45.9 (32.2–60.2)	67.2 (58.5–74.8)
Mammography	11.3 (9.8–13.1)	11.5 (9.3–14.0)	6.2 (4.1–9.3)	13.4 (9.2–19.2)	18.1 (11.9–26.7)	Suppressed	40.1 (31.9–48.8)
Colorectal cancer	7.7 (6.5–9.2)	6.3 (4.8–8.1)	6.0 (3.9–9.2)	12.0 (8.0–17.7)	14.3 (9.2–21.5)	Suppressed	27.6 (20.2–36.5)
Cervical cancer	7.3 (6.1–8.8)	6.1 (4.6–7.9)	5.1 (3.1–8.1)	11.3 (6.6–18.7)	14.8 (9.5–22.3)	Suppressed	26.0 (18.8–34.7)
Depression	5.4 (4.3–6.6)	4.4 (3.2–6.1)	4.6 (2.8–7.4)	6.3 (3.6–10.8)	11.5 (6.4–19.8)	Suppressed	23.8 (17.2–31.8)
Disease management							
Hypertension	19.7 (17.7–21.9)	16.9 (14.3–19.8)	18.3 (14.5–24.7)	18.4 (13.3–24.9)	40.0 (31.7–50.1)	52.6 (38.8–66.0)	75.4 (65.8–82.9)
Diabetes	19.5 (17.6–21.7)	16.8 (14.2–19.7)	18.3 (14.5–22.9)	18.2 (13.1–24.7)	37.4 (28.4–47.3)	55.4 (40.6–69.3)	75.9 (66.4–83.4)
High cholesterol	18.9 (17.0–21.1)	16.3 (13.8–19.2)	17.4 (13.7–21.8)	17.7 (12.6–24.2)	38.9 (29.7–49.0)	44.8 (30.6–59.9)	71.7 (61.7–80.0)
Obesity	18.6 (16.6–20.7)	16.0 (13.4–18.9)	17.6 (13.9–21.9)	16.1 (11.3–21.9)	38.5 (29.2–48.7)	44.5 (30.0–60.0)	74.4 (65.2–81.8)
Cancer/cancer survivorship	16.6 (14.7–18.6)	15.2 (12.7–18.0)	14.0 (10.7–18.1)	14.7 (9.9–21.3)	32.5 (22.9–41.7)	41.9 (28.0–57.3)	62.6 (52.5–71.7)

Programs or Activities	Total, % (95% CI)	10–24, % (95% CI)	25–49, % (95% CI)	50–99, % (95% CI)	100–249, % (95% CI)	250–499, % (95% CI)	500+, % (95% CI)
Depression	15.1 (13.4–17.0)	11.3 (9.3–13.8)	16.2 (12.7–20.5)	15.1 (10.5–21.3)	35.4 (26.5–45.4)	43.2 (28.7–58.9)	67.4 (57.5–75.9)
High-risk pregnancy	11.4 (9.9–13.2)	11.6 (9.4–14.2)	7.4 (5.1–10.5)	7.9 (4.9–12.4)	21.9 (14.7–31.5)	26.8 (15.9–41.4)	49.9 (39.4–60.4)
Asthma	11.2 (9.6–12.9)	8.3 (6.5–10.7)	13.0 (9.8–17.1)	10.3 (6.6–15.6)	24.7 (17.2–34.2)	27.0 (15.6–42.6)	57.8 (47.4–67.5)
Migraine/headache	8.9 (7.5–10.5)	7.9 (6.1–10.1)	8.9 (6.4–12.3)	4.9 (2.7–8.8)	20.3 (12.9–30.4)	21.6 (12.3–35.3)	38.5 (28.6–49.4)

Abbreviation: Cl, confidence interval.

[a]We suppressed estimates with a sample size of less than 50 or a relative standard error above 30%.

Table 3.

Policies, Benefits, Environmental Supports, and Comprehensive Programs by Worksite Size.[a]

	Total, % (95% CI)	10–24, % (95% CI)	25–49, % (95% CI)	50–99, % (95% CI)	100–249,% (95% CI)	250–499, % (95% CI)	500+, % (95% CI)
Physical activity							
On-site exercise facility	12.4 (10.9–14.1)	11.0 (9.0–13.5)	8.5 (6.3–11.4)	15.3 (11.1–20.8)	21.7 (15.8–29.0)	36.8 (26.1–49.0)	43.3 (35.0–52.1)
Active work stations	13.9 (12.3–15.6)	11.8 (9.7–14.2)	10.5 (8.0–13.6)	15.2 (10.9–20.8)	29.7 (22.0–38.8)	42.6 (29.8–56.5)	49.6 (40.8–58.4)
Environmental supports (trails, bike racks, and showers)	16.3 (14.6–18.2)	14.1 (11.8–16.7)	14.0 (11.2–17.5)	17.6 (12.8–23.6)	30.6 (23.1–39.3)	33.5 (22.9–46.1)	62.2 (53.5–70.2)
Organized physical activity programs/ classes	17.2 (15.4–19.2)	15.5 (13.0–18.2)	12.6 (9.7–16.3)	23.2 (17.8–29.7)	26.2 (19.1–34.8)	42.8 (30.3–56.3)	51.0 (41.7–60.1)
Activity tracking device free or discounted	8.7 (7.4–10.2)	7.1 (5.4–9.2)	5.5 (3.7–8.1)	10.4 (6.9–15.3)	21.7 (15.1–30.3)	26.5 (16.9–39.0)	35.7 (27.8–44.4)
Paid time for physical activity	8.2 (7.0–9.6)	8.0 (6.4–9.9)	7.5 (5.4–10.2)	6.8 (4.0–1 1.2)	12.2 (6.8–20.7)	17.1 (9.4–29.0)	19.5 (12.9–28.5)
Nutrition and weight management							
Food prep and storage facilities	40.3 (37.8–42.8)	34.4 (31.0–37.9)	38.5 (33.8–43.5)	50.2 (42.7–57.7)	63.9 (53.7–73.0)	78.2 (66.4–86.7)	85.4 (78.7–90.2)
Policy for healthier food at meetings	10.1 (9.0–12.2)	11.8 (9.5–14.4)	5.8 (3.9–8.4)	10.2 (6.4–15.6)	11.4 (6.7–18.8)	Suppressed	26.0 (18.9–34.5)
On-site cafeteria/snack bar	16.2 (14.4–18.1)	13.5 (11.2–16.3)	12.4 (9.5–16.0)	22.7 (17.7–28.6)	24.7 (17.9–33.1)	47.7 (34.6–61.0)	74.8 (67.3–81.1)
Full/partial coverage for bariatric surgery Tobocoo	5.6 (4.5–7.0)	3.3 (2.1–5.1)	4.6 (2.8–7.4)	Suppressed	13.5 (8.6–20.6)	27.3 (16.5–41.8)	49.5 (39.6–59.5)
Display tobacco/smoking signs	28.9 (26.7–31.3)	24.1 (21.1–27.3)	26.6 (22.3–31.3)	38.8 (31.8–46.3)	45.5 (36.5–54.7)	67.8 (54.3–78.9)	82.2 (74.4–88.0)
Written tobacco policy	31.2 (28.9–33.6)	26.1 (23.0–29.4)	28.1 (23.8–32.8)	42.9 (35.6–50.5)	49.2 (40.1–58.4)	68.4 (54.5–79.6)	84.2 (76.4–89.7)
Policy banning all tobacco use	19.4 (17.5–21.4)	15.3 (13.0–18.0)	18.6 (15.1–22.7)	28.9 (22.7–36.2)	28.3 (21.5–36.3)	43.1 (30.9–56.2)	70.0 (60.3–78.2)
Other health topics							
Blood pressure monitoring device for self-assessments	4.8 (3.8–5.9)	2.9 (1.9–4.4)	4.1 (2.6–6.5)	10.1 (6.6–15.2)	10.6 (6.0–18.1)	Suppressed	22.0 (14.2–32.5)
Occupational safety and health							
At least 1 person responsible for safety	83.5 (81.4–85.4)	81.2 (78.2–83.9)	86.0 (82.2–89.2)	83.0 (75.1–88.8)	91.9 (85.2–95.7)	93.9 (85.5–97.5)	93.9 (87.9–97.0)
Written injury and illness prevention program	69.4 (66.9–71.8)	63.6 (60.0–67.1)	77.1 (72.7–81.0)	77.7 (70.3–83.7)	70.9 (61.9–78.5)	90.6 (80.3–95.8)	91.1 (83.4–95.5)
On-site health clinic	7.6 (6.3–9.1)	7.8 (6.0–10.1)	4.0 (2.4–6.7)	6.6 (3.9–10.9)	12.2 (7.6–18.8)	20.6 (12.2–32.6)	39.5 (30.6–49.2)
Work–life							
EAP for employees and families	3 1.7 (29.2–34.2)	25.4 (22.2–28.9)	30.8 (26.3–35.7)	41.7 (34.2–49.6)	55.4 (45.3–65.0)	62.5 (49.1–74.2)	73.6 (64.7–81.0)
Flexible work schedules	55.3 (52.7–57.8)	59.0 (55.5–62.4)	51.0 (46.1–55.8)	47.6 (40.2–55.2)	50.2 (40.6–59.7)	55.7 (42.7–67.9)	68.1 (59.5–75.6)

	Total, % (95% CI)	10–24, % (95% CI)	25–49, % (95% CI)	50–99, % (95% CI)	100–249,% (95% CI)	250–499, % (95% CI)	500+, % (95% CI)
Allow working from home	35.8 (33.4–38.3)	35.2 (31.9–38.7)	34.0 (29.9–38.4)	36.3 (28.8–44.5)	40.2 (31.2–49.8)	44.5 (31.9–58.0)	69.8 (60.9–77.4)
Disability leave/disability insurance	69.6 (67.3–71.9)	63.7 (60.2–67.1)	70.2 (65.5–74.5)	83.4 (78.5–87.4)	83.9 (75.5–89.8)	93.9 (81.7–98.1)	97.1 (90.6–99.1)
Paid new parent leave	42.8 (40.2–45.3)	41.2 (37.6–44.9)	39.6 (35.0–44.4)	46.0 (39.2–53.0)	53.5 (43.8–62.8)	50.1 (37.9–62.4)	76.4 (68.0–83.1)
Unpaid parental leave	76.5 (74.1 −78.7)	70.3 (66.8–73.7)	80.2 (75.7–84.0)	85.0 (79.2–89.4)	92.9 (85.3–96.7)	99.2 (98.0–99.7)	94.6 (85.2–98.1)
Cover child-care costs/flexible spending account	27.1 (25.0–29.4)	24.4 (21.5–27.7)	25.0 (21.1–29.3)	28.9 (22.8–35.9)	42.0 (33.9–50.6)	61.0 (46.8–73.5)	71.1 (62.0–78.8)
On-/off-site childcare	6.0 (5.0–7.2)	5.7 (4.3–7.5)	6.2 (4.4–8.9)	6.2 (3.7–10.1)	Suppressed	Suppressed	19.3 (12.9–27.7)
Comprehensive program elements							
Supportive social and physical environment	47.8 (45.3–50.3)	44.9 (41.5–48.5)	46.4 (41.7–51.1)	48.8 (41.8–55.9)	64.0 (55.1–72.0)	75.8 (65.4–83.8)	84.2 (76.7–89.6)
Linkage to related programs	46.0 (43.5–48.4)	37.8 ((34.4–41.3)	45.4 (40.6–50.2)	59.3 (52.1–66.1)	77.3 (68.9–84.0)	83.8 (74.9–90.0)	92.6 (85.5–96.4)
Health education programs	33.7 (31.5–36.1)	28.9 (25.8–32.1)	30.8 (26.4–35.5)	43.9 (37.4–50.7)	50.9 (42.7–59.1)	75.2 (62.7–84.5)	79.6 (72.1–85.5)
Integration	28.4 (26.2–30.8)	24.1 (21.2–27.4)	27.6 (23.3–32.3)	35.8 (29.0–43.3)	40.3 (32.0–49.1)	62.7 (48.8–74.9)	77.4 (69.1–84.0)
Health screenings	26.6 (24.5–28.9)	22.8 (19.9–25.9)	23.6 (19.7–28.0)	30.6 (24.7–37.3)	48.1 (39.8–56.6)	62.9 (50.3–73.9)	63.4 (54.5–71.4)
All 5 elements	11.8 (10.4–13.4)	11.0 (9.1–13.3)	8.3 (6.1–11.2)	12.2 (8.7–16.7)	21.3 (15.5–28.6)	33.6 (23.2–45.9)	39.5 (31.8–47.8)

Abbreviations: Cl, confidence interval; EAP, employee assistance program.

[a] We suppressed estimates with a sample size of less than 50 or a relative standard error above 30%.

Table 4.

Relative Odds of Providing a Comprehensive Health Promotion Program by Worksite Characteristics: Among All 2017 Survey Respondents.

	Unadjusted Odds Ratio (95% Confidence Interval)	*P* Value	Adjusted Odds Ratio (95% Confidence Interval)	*P* Value
Person assigned responsible	19.49 (12.68–29.95)	**<.001**	8.14 (4.11-l6.11)	**<.001**
Annual budget	38.18 (23.66–61.61)	**<.001**	6.99 (4.03–12.13)	**<.001**
Health program experience > 5 years	8.35 (6.04–11.54)	**<.001**	3.08 (1.93–4.91)	**<.001**
Size				
10–24 (ref)	1.00		1.00	
25–49	0.73 (0.49–1.09)	.127	0.63 (0.33–1.22)	.174
50–99	1.13 (0.73–1.72)	.589	0.34 (0.16–0.70)	**.004**
100–249	2.20 (1.41–3.43)	**.001**	0.89 (0.46–1.71)	.718
250–499	4.10 (2.36–7.13)	**<.001**	1.50 (0.58–3.87)	.398
500+	5.30 (3.56–7.87)	**<.001**	1.77 (0.82–3.84)	.145
Industry				
Ag/Forest/Fish/Mining/Util/Const/Manf (ref)	1.00		1.00	
Wholesale/Retail, Transp/Wareh	1.66 (1.04–2.64)	**.034**	1.69 (0.81–3.52)	.159
Arts/Entertain/Rec/Accom and Food	1.39 (0.87–2.23)	.166	2.38 (1.09–5.19)	**.030**
Info/Finance/Insur/Real Est/Prof, Scientific	0.65 (0.39–1.08)	.097	0.40 (0.15–1.11)	.079
Educ Srvcs/Hlth Care & Soc Assist	1.12 (0.70–1.80)	.630	0.95 (0.41–2.19)	.910
Local/State/Fed Public Admin	2.53 (1.63–3.92)	**<.001**	1.45 (0.69–3.03)	.328
Hospitals	5.22 (3.53–7.71)	**<.001**	1.71 (0.80–3.68)	.167

Estimates in bold are significant.

Table 5.

Comparing Selected 2004 and 2017 Estimates.

	2004, % (95% CI)	2017, % (95% CI)	*P* Value	2017–2004, % Absolute Difference (95% CI)
Comprehensive program elements				
Supportive social and physical environment	29.2 (24.7–35.0)	56.0 (50.6–61.4)	**<.001**	26.1 (18.7–33.5)
Linkage to related programs	41.3 (35.7–46.7)	65.3 (59.9–70.6)	**<.001**	24.0 (16.4–31.6)
Health education	26.2 (21.5–30.8)	48.3 (43.2–53.3)	**<.001**	22.1 (15.3–28.9)
Integration	28.6 (23.4–33.7)	38.8 (33.2–44.3)	**.009**	10.2 (2.6–17.8)
Health screenings	23.5 (18.7–28.3)	38.4 (33.5–43.3)	**<.001**	14.9 (8.0–21.8)
All 5 elements	6.9 (3.9–10.0)	17.1 (13.7–20.6)	**<.001**	10.2 (5.6–14.8)
Programs				
Physical activity	19.6 (15.5–23.7)	41.1 (35.5–46.7)	**<.001**	21.5 (14.6–28.4)
Nutrition	22.7 (18.2–27.2)	34.5 (29.1–40.0)	**.001**	11.8 (4.7–18.9)
Stress	24.9 (20.1–29.9)	29.3 (23.8–34.8)	.242	4.4 (–3.0–11.8)
Tobacco	18.6 (14.5–22.5)	28.5 (23.5–33.4)	**.002**	9.9 (3.5–16.3)
Weight management	21.4 (16.9–25.9)	29.8 (24.7–34.8)	**.015**	8.4 (1.6–15.2)
Employee assistance program	44.7 (39.3–50.1)	62.5 (52.2–72.7)	**<.001**	17.8 (8.0–27.6)
Screenings				
Blood pressure	36.4 (31.0–41.7)	34.0 (29.0–39.0)	.523	2.4 (–5.0–9.8)
Cholesterol	29.4 (24.5–34.4)	29.9 (25.1–34.6)	.886	0.5 (–6.4–7.4)
Diabetes	27.4 (22.5–32.3)	29.5 (24.9–34.2)	.542	2.1 (–4.7–8.9)
Disease management				
Hypertension	22.9 (18.1–27.6)	27.9 (22.8–33.1)	.197	5.0 (–2.6–12.6)
Diabetes	25.0 (20.1–29.8)	27.0 (22.0–32.0)	.612	2.0 (–5.7–9.7)
Obesity	16.4 (12.2–20.5)	26.0 (21.0–31.0)	**<.001**	9.6 (5.4-l3.8)
Cancer	22.5 (17.7–27.8)	22.1 (17.2–27.0)	.906	0.4 (–6.2–7.0)
Depression	20.5 (16.1–24.9)	23.5 (18.6–28.4)	.180	3.0 (–1.4–7.4)
High-risk pregnancy	18.6 (14.2–22.9)	14.2 (10.4–18.0)	**.048**	4.4 (0.0–8.8)
Asthma	19.1 (14.8–23.4)	16.8 (12.7–20.9)	.292	2.3 (–2.0–6.6)

Abbreviation: CI, confidence interval. Estimates in bold are significant at $P < .05$.