

How to Promote Heart Disease and Stroke Prevention in the Workplace

A Guide for Employers, Program Coordinators,
and Health Benefit Designers



May 2022

Contents

Introduction	4
Heart Disease and Stroke Cost the United States Billions Each Year	4
You Can Help Reduce Heart Disease and Stroke in the U.S. Workforce	4
How to Use This Guide	5
What You Will Find in This Guide	5
How to Develop a Coordinated WHP Program to Prevent Heart Disease and Stroke	6
Step 1. Assessment	6
Step 2. Program Planning and Management	7
Step 3. Implementation	8
Step 4. Evaluation	8
The Elements of a Comprehensive WHP Program	9
Element 1. Offer Health Screening and Risk Assessment Programs	9
Element 2. Provide Health Education Programs	11
Element 3. Integrate WHP Programs Into Your Organization’s Structure	11
Element 4. Use a Holistic Approach to Health Promotion	14
Element 5. Evaluate Your Efforts	15
Policy Considerations	18
Additional Resources	19
References	20

Acknowledgments

This guide was developed by the Division for Heart Disease and Stroke Prevention in the Centers for Disease Control and Prevention (CDC). It was conceptualized and authored by Sharada Shantharam, MPH; Ava Corwin, MPH; and Brittany Lue, MPH.

Jason Lang, MPH, MS; Kaitlin Wade, BIS; Murray Harber, BS; and Siobhan Gilchrist, JD, MPH, contributed subject matter expertise, identified tools and resources, and reviewed the document.

Suggested Citation

Centers for Disease Control and Prevention. *How to Promote Heart Disease and Stroke Prevention in the Workplace: A Guide for Employers, Program Coordinators, and Health Benefit Designers*. US Dept of Health and Human Services; 2022.

Introduction

Heart Disease and Stroke Cost the United States Billions Each Year

Heart disease and stroke are leading causes of death and disability and the most expensive medical conditions for businesses in the United States.^{1,2} Heart disease alone cost the country \$219 billion in medical expenses during 2016–2017.³ Another \$57 billion was spent on direct and indirect medical costs for stroke-related care, including health care services, medicines, and lost productivity due to premature death.³ These conditions are preventable and can not only lead to a healthier and more productive workforce, but to reductions in healthcare expenditures as well.

High blood pressure and high cholesterol are the most common and modifiable risk factors for heart disease and stroke.⁴ Having high blood pressure can increase a person's risk of heart disease, heart attack, stroke, and heart failure.⁴ High cholesterol is characterized as high levels of low-density lipoprotein (LDL) cholesterol, sometimes called "bad" cholesterol. High levels of LDL cholesterol can lead to a heart attack.

In 2018, nearly 28 million U.S. adults—or 20% of the country's working-age population—were diagnosed with heart disease. More than 7 million had a stroke between 2015 and 2018.^{3,5} That makes the prevention of heart disease and stroke an important issue for employers to address.

On average, people in the United States who work full time spend more than one third of their day at work. Certain industries, such as agriculture, fishing, mining, wholesale and retail trade, and education services, have become key settings for heart disease and stroke prevention and management.⁶

You Can Help Reduce Heart Disease and Stroke in the U.S. Workforce

Heart disease and stroke cost employers like you billions of dollars each year in both direct costs—including coverage for health care services and medicines for your workers—and indirect costs related to lost productivity from death and disability.⁷

You can help improve the health of your employees and lower your costs by supporting programs that promote heart and brain health.⁸ You can learn about effective strategies and use best practices to lower your employees' risk of heart disease and stroke.



High blood pressure and high cholesterol can be prevented through lifestyle changes, such as increasing daily physical activity, not smoking, and making healthy eating choices. These conditions can also be treated with medication.

Learning effective ways to reduce your employees' risk of heart disease and stroke can lower direct costs such as insurance premiums and worker's compensation claims, as well as indirect costs such as absenteeism and lower productivity.¹



How to Use This Guide

Studies have shown that a comprehensive workplace health promotion (WHP) program that uses best practices and creates a culture of health can have a positive influence on employee health and lower costs for employers.^{2,6,7}

This guide outlines a coordinated and systematic approach to creating a comprehensive WHP program that addresses multiple risk factors and health conditions at multiple levels. You can use this approach to plan, put into action, and evaluate a program to improve the heart and brain health of your employees by focusing on high blood pressure and high cholesterol.

For employers of all sizes and in all industries who want to invest in their employees' health, this guide also provides information about effective strategies and promising practices. WHP programs that focus on preventing heart disease and stroke can be integrated into an organization's structure at all levels, through leadership decisions, programmatic efforts, and health benefit design.^{6,9,10} They can also be used by all types of employers, ranging from small to large businesses and across all types of workers.¹¹

This guide can help you start a new WHP program or improve an existing one. The guide can be used by staff across your organization, including those in leadership, human resources, or benefits management positions or serving on workplace health committees. The information in this guide will also be useful to anyone involved in assessing employee health needs or monitoring and evaluating current efforts to improve workplace health.

Finally, this guide describes federal and state policies that may affect your efforts and provides links to resources to help you tailor your program to meet the specific health needs of your employees.

What You Will Find in This Guide

- **Information and resources** to help you set up a comprehensive WHP program to improve the heart and brain health of your employees.
- A description of the **four main steps of a coordinated approach** to workplace health: assessment, program planning and management, implementation, and evaluation.
- A discussion of relevant **federal and state workplace health policies.**
- **Additional resources** to help you start or improve a WHP program.

How to Develop a Coordinated WHP Program to Prevent Heart Disease and Stroke

High blood pressure and high cholesterol are the most common modifiable risk factors for heart disease and stroke. You can take a tangible step to improve the health of your employees by implementing WHP programs that address these conditions. Effective programs are those that are tailored to the specific needs of your employees and the priorities and resources of your company. This targeted approach is more likely to succeed than trying to use all potential workplace health strategies.

A coordinated and systematic approach to workplace health should follow these four steps: assessment, program planning and management, implementation, and evaluation.

Step 1. Assessment

The first step is to clearly identify the main health conditions and risks faced by your employees and how you can help them improve their health. Accurate information will help you develop and tailor programs that your employees will accept and participate in. You can collect this information by assessing your workplace and your employees' needs.

For more details, see Elements 1–4 of a [Comprehensive WHP Program on pages 9-14](#).

Conduct a Workplace Health Assessment

Start by conducting a workplace health assessment to identify which strategies will work best with your employees. Focus on collecting specific information about how your organization's culture, policies, and current health-related practices might be affecting employee health. You can also assess the readiness for change of both your organization and your employees¹² and commit to using employee feedback when making decisions.

A successful health assessment should collect information about all or most of the following:

- » Your workplace environment, such as the physical working conditions and the current level of support for wellness programs.
- » The health benefits offered by your competitors and market research on WHP.
- » The demographics of your employees, including their ages, races, ethnicities, income levels, and education levels.
- » Information about all relevant insurance and tax laws, as well as federal, state, and local regulations.

Conduct an Employee Health Needs Assessment

Next, conduct an employee health needs assessment to collect information about factors that support or hinder the health of your employees. This assessment could collect the following information about your employees:

- » Health conditions and risks.
- » Lifestyle choices.
- » Barriers to getting health care or making healthy lifestyle changes.
- » Needs and interests.
- » Readiness to make behavior changes.

You can collect this information in multiple ways. For example, you can conduct surveys, interviews, and questionnaires with your employees. You can collect physical measurements, such as weight, body mass index, or blood pressure and blood cholesterol levels. You can also review health insurance claims and time and attendance records.

The information you collect can help you plan, design, and evaluate your health benefit plans and health promotion programs. It can also guide the focus of future interventions to help people make behavior changes to address modifiable risk factors.

A high percentage of your employees need to complete the needs assessment. Employees can self-report behavioral information through surveys or submit biometric health information, such as blood samples and physical measurements. Comprehensive data will help ensure that the WHP program you choose aligns with the needs of your employees and your workplace. You might consider providing incentives to motivate employees to participate in the assessment.¹³

For more information on how to conduct a health needs assessment, see CDC's [Workplace Health Model](#).

Step 2. Program Planning and Management

Before you implement a WHP program, plan how it will be administered and managed. All programs require a basic governing structure that includes strategic direction, leadership, and clear operating procedures.

You will also need to plan how you will recruit and enroll employees in your program. Research has shown that employees are more engaged when WHP programs provide a flexible enrollment process and use a participant-centered approach.¹⁴ Creating a culture of health and well-being in your workplace can also help you keep employees engaged.¹⁵

Here are some strategies to consider when planning a WHP program:

- » Ensure that you have support from senior leadership, who can serve as champions for the program and provide the necessary resources.
- » Identify a workplace health coordinator, council, or committee to oversee the program. People serving in these positions can be paid or volunteer.
- » Ensure that you have support and engagement from your employees.
- » Develop a workplace health improvement plan that has enough resources to articulate and execute goals and strategies.

You can increase participation in your WHP program by planning ahead for potential barriers. For example, some employees may think they do not have time to be physically active. You can help them overcome this barrier by providing onsite recreational facilities or classes.

Here are some resources that can help you increase employee participation in your WHP program:

- » [CDC's Workplace Health Program: Engaging Employees in Their Health and Wellness](#)
- » [Wellness Council of America: Activating Wellness Program Participation](#)
- » [University of California Berkeley's Interdisciplinary Center for Healthy Workplaces: Finding Fit: Increasing Participation Rates in Wellness Programs for Small and Medium Organizations](#)
- » [HERO Health and Well-Being Best Practices Scorecard in collaboration with Mercer®: 2020 Progress Report](#)

For more details, see Elements 1–4 of a [Comprehensive WHP Program on pages 9-14](#).

Step 3. Implementation

The health of your employees is influenced not only by their individual actions but also by where they work, live, and play. It is affected by the environment where individual actions are taken, as well as by the policies and systems associated with those environments. WHP programs are more effective when they use a combination of individual- and organizational-level strategies and interventions to influence employee health.



Workplace health promotion programs do not have to cost a lot. Some of the most effective interventions can be health-related changes to organizational policies (e.g., providing blood pressure cuffs, providing maps with measured walking routes). These types of changes can be especially useful for small and medium-sized companies that have limited resources to dedicate to employee health.

Here are some strategies to consider when you implement a WHP program:

- » Integrate WHP programs with other employee benefits.
- » Offer programs tailored to the employees.
- » Communicate clearly and consistently about the program to all employees.
- » Offer financial or other incentives and benefits to employees who participate in WHP programs.
- » Create a system for collecting and using data to plan programs, support policy and environmental changes, and evaluate your efforts.

For more details, see Elements 1–4 of a [Comprehensive WHP Program on pages 9-14](#).

Step 4. Evaluation

Choose an evaluation method that will help you modify your program as needed. Although it is listed as the last step, evaluation should be considered and developed as part of the planning process and implemented along with your WHP program. Evaluation can also assess how well you implemented your WHP program and its related policies, benefits, and environmental supports.

Your evaluation can include data collected from blood pressure and cholesterol screenings, health risk or well-being assessments, and employee engagement and satisfaction surveys. The information you collect can be used to create a feedback loop to help you continuously improve your efforts. This approach will help you strengthen existing activities, look for gaps in program offerings, and describe how your resources are being invested.

For more information about how to evaluate your efforts, see [Element 5](#) of a [Comprehensive WHP Program on pages 9-14](#).

The Elements of a Comprehensive WHP Program

A comprehensive intervention is one that addresses multiple risk factors and health conditions at once. It can influence multiple levels of an organization—in this case, both the individual employees and the overall workplace.

Evidence shows that coordinated approaches are more effective than individual programs and can have a positive effect on employee health, morale, and productivity.^{7,14} Coordinated approaches that combine multiple interventions and strategies often have the most success, because employees perceive that their needs are valued, which creates an environment for positive behavior change.¹¹

Heart disease and stroke share several risk factors (e.g., high blood pressure, high cholesterol) and lifestyle behaviors (e.g., smoking tobacco, not getting enough physical activity, not eating a healthy diet) with other health conditions, including diabetes, obesity, and lung disease.

This guide can help you set up a WHP program to prevent heart disease and stroke by focusing on high blood pressure and high cholesterol. However, your employees will benefit from a holistic approach that addresses multiple health risks and conditions in one program. Your program should also include the five elements of a comprehensive WHP program.

Element 1. Offer Health Screening and Risk Assessment Programs

Health Screenings

Health screenings, paired with follow-up with a health care provider, can reduce blood pressure and cholesterol levels and the number of days lost from work because of illness or disability.¹⁷ One of the first steps you can take to help your employees lower their risk of heart disease and stroke is to provide a way for them to be screened for these risk factors and have their weight checked.

How One Company Used Health Screenings

The worksite wellness program at Blue Cross Blue Shield of Kansas City includes health screenings and a post-program counseling session designed to help employees stay at low risk. The health screenings are paired with telephone coaching, smoking cessation programs, and physical activity campaigns.

An evaluation of the program found that 49% of employees who were at high risk of developing cardiovascular disease (CVD) reported lower blood pressure and cholesterol levels, reducing their risk of developing CVD. Improvement was also reported for 40% of employees who were at moderate risk of developing CVD.¹⁸



Healthy People 2030 suggests that employers can help improve the health and well-being of their workers by offering employee health promotion programs, including those focused on physical activity and nutrition.¹⁶

You can offer screenings at onsite occupational health clinics and health fairs. You can also cover offsite screenings in your employee benefit plan. Staff in your human resources department can provide information about the benefits and availability of screening to encourage and motivate employees to use these services. Any employees who are found to have high blood pressure or high cholesterol levels should be referred to a health care provider. Using health screenings to manage high blood pressure and cholesterol is considered one of the top 10 most effective clinical preventive services, because it is cost-effective and improves people's quality of life.¹⁹

If you want to include health screenings in your WHP program, start by using surveys or quizzes to assess your employees' health needs and knowledge about their health benefit coverage. This information will help you understand how you can help your employees improve their health.

To increase the chances that your employees will get recommended screenings, here are some strategies you can use:²⁰

- » Provide coverage for blood pressure and cholesterol screening in your employee health benefits. You can also provide coverage for follow-up services and lifestyle management programs for those who need it.
- » Provide information and training on how to interpret normal or unhealthy results.
- » Make health screenings easy to access by offering them at onsite health clinics or during other workplace activities.



Self-Measured Blood Pressure Monitoring

Self-measured blood pressure monitoring is another proven strategy for controlling blood pressure levels. You can give your employees monitoring devices and training on how to use them. The resulting measurements can be shared with a health care provider to determine whether treatment is needed.

You can also provide self-testing health stations that measure blood pressure in the workplace. These stations give employees a convenient way to monitor their potential risk of high blood pressure. A study that examined the use of self-testing stations found that employees who got an initial reading of high blood pressure used the stations more often than those who got a reading of prehypertension or normal blood pressure.²¹ All employees who used the station used it an average of 4.2 times over 18 months.

Self-testing health stations can encourage employees to modify their health risks and identify employees who may have high blood pressure.

For more information about self-measured blood pressure monitoring and education, see the [***Best Practices for Cardiovascular Disease Prevention Programs***](#) guide published by CDC's Division for Heart Disease and Stroke Prevention.



Element 2. Provide Health Education Programs

Health education programs help patients already diagnosed with high blood pressure and high cholesterol manage these conditions. They can include:

- » One-on-one lifestyle counseling or coaching and follow-up monitoring.
- » Educational seminars, workshops, or classes on the condition.
- » Informational events, such as health fairs, or materials, such as brochures, newsletters, or videos.

These programs include lifestyle management programs, which are a continuous series of services designed to teach and counsel participants on how to make healthy choices. These choices can include being more physically active, eating a healthy diet, and not smoking—all of which can help lower blood pressure and cholesterol levels. You can provide lifestyle management programs in the workplace, through virtual or telephone sessions, or through a blend of both approaches.

You can also give your employees access to seminars, workshops, or classes on balanced nutrition and the benefits of physical activity, as well as on how to quit smoking or control high blood pressure and high cholesterol. This information can be provided online, by telephone, or through a self-study guide. If your employees have the option of working remotely, you can also consider offering flexible work schedules and reimbursement for fitness activities.²²

Another approach is to provide informational materials and educational campaigns in the workplace. Successful heart disease and stroke prevention campaigns include “Know Your Blood Pressure Levels” and “Recognize the Symptoms of a Heart Attack.”²²

Element 3. Integrate WHP Programs Into Your Organization’s Structure

Commit to Making Your Program a Success

To successfully integrate a WHP program into your organization’s structure, having senior managers who are committed to supporting the program is essential. Dedicated staff and resources can support your efforts to improve employee health and promote messages about heart and brain health.

By creating a healthy and safe work environment, you can help increase the productivity of your employees and lower your costs. Comprehensive WHP programs focused on preventing heart disease and stroke have been found to yield a \$3 to \$6 return for every \$1 invested over 2 to 5 years.² An analysis of insurance claims found that annual mean payments for heart-related claims were \$4,639 per patient. This cost was more than double the average payment of \$2,230 for all health conditions analyzed.²³

The purpose of a WHP program is not to measure your employees' health as a way to judge their performance. It is an opportunity to support your employees, learn about their health concerns, and offer potential solutions.

Another way to integrate WHP programs into your organization is to design employee benefit plans that use proven health promotion strategies, provide incentives to encourage employees to use these benefits, and share information with your employees in multiple ways.

Wellness Team and Management Support Helped Make Program a Success

Greater Lakes Mental Healthcare (GLMHC) in Pierce County, Washington, conducted a health assessment in 2013 to find ways to expand its existing health promotion efforts. It used the results to create a comprehensive worksite wellness program that focused on tobacco use, physical activity, and nutrition.²⁴

With support from a wellness committee and senior leadership, GLMHC worked to create a tobacco-free environment for all staff and clients. These efforts included promoting cessation resources, such as counseling groups and reimbursement for nicotine replacement therapy.

To educate employees about proper nutrition, GLMHC held lunch-and-learn sessions related to nutrition and healthy eating and posted recipe ideas on a wellness wall. It encouraged employees to take regular exercise breaks and use the stairs instead of the elevator. Managers supported participation in these activities through e-mails, announcements, and reminders at staff meetings.

GLMHC's senior leadership helped make the wellness program a success by committing their support to the goal of improving employee health and well-being.

Offer a Benefits Plan That Uses Proven Health Promotion Strategies

You can make your WHP program part of the services and programs that you offer as benefits to your employees. For example, you can offer health insurance programs, employee assistance programs, and discounts or subsidies for local gym memberships for employees and their families. These benefits can have a positive effect on the health of your employees.²⁵

Many of the services that your benefits plan will cover are provided in the community, not in the workplace. By promoting the use of community-level preventive services, such as blood pressure and cholesterol screenings, you can help improve the health of the community where your organization is located.²⁶ These efforts will help not only your current employees but your future employees as well.

Consider Heart and Brain Health When You Choose a Health Insurance Plan

Your employee health benefit plan can include strategies designed to reduce costs associated with heart disease and stroke risk factors. Plans that offer services that take into account heart and brain health can benefit you and your employees. However, make sure your plan does not discourage employees from using the available services—for example, because the network of health care providers is too small.

Typically, employer health plans use a network system in which employees have lower out-of-pocket expenses when they use designated providers. Examples of these types of networks include the following:

- » Tiered or high-performance networks put health care providers into different categories according to the cost-effectiveness or quality of care they provide.²⁷ This approach can help employers reduce spending and lower costs per member compared with nontiered network plans.
- » Narrow network plans are a slightly more aggressive strategy that can significantly lower premiums, overall spending, and health care costs while improving quality of care. Employers can negotiate prices, demand higher standards, and limit the number of providers in the network. These plans give employers more power to control costs and the quality of care delivered.
- » Value-based insurance design is an approach that encourages high-value medical treatments over low-value medical treatments by implementing cost-sharing requirements.²⁸ High-value treatments include preventive services, such as blood pressure and cholesterol screening, that have been proven to improve individual and population health. Health plans that reduce or eliminate out-of-pocket costs for blood pressure medicines or cholesterol tests, provide coverage for home blood pressure monitors, and reimburse providers to train patients to use those monitors are encouraged.²⁹

Analyzing your organization's health care costs data over time will help you assess whether your WHP program is lowering your costs and improving the health of your employees. Information about how to use these data can be found on CDC's [Workplace Health Promotion Healthcare Cost Data](#) website.

Cover Blood Pressure and Cholesterol Screenings

The United States Preventive Services Task Force (USPSTF) recommends that clinicians regularly screen adults age 18 or older for high blood pressure.³⁰ By providing health benefit coverage for these screenings, you will help ensure that your employees get their blood pressure checked regularly when they visit their health care team.³¹

You can ensure that your employees get the services they need by providing coverage for cholesterol screening, counseling, disease management programs, and treatment.

Provide Incentives to Encourage the Use of Health Services

You can use your purchasing power as an employer to ensure that your employees get high-quality, high-value health care while still maintaining or lowering your costs. You can also provide incentives to encourage employees to consistently and appropriately use the services covered under their health plan, including services designed to control blood pressure and reduce cholesterol levels.³²⁻³⁴

Incentives can include gift cards, paid time off, or reduced health insurance premiums. You can offer incentives for using recommended services or achieving certain health outcomes.

Make Sure Employees Know About Their Benefits

The health care services and wellness programs covered by your health benefit plan should be clearly defined so your employees will use them. Employees also need to know what their benefits are. Well-designed communications can help increase use of these services and participation in wellness programs.

Here are five strategies that have been shown to increase awareness of employee benefits and workplace wellness programs:³⁵⁻³⁷

- » **Motivating employees and building trust by celebrating progress and achievement of goals.** You can share information in company newsletters, on social media, and in meetings.
- » **Tailoring messages to the appropriate health literacy level.** Focus your messages for different audiences by considering factors, such as your employees' age, sex, ethnicity, education level, or job type. For example, information may need to be less technical or provided in different languages.
- » **Using multiple channels of communication and technology to engage employees and increase participation.** For example, you can share information in newsletters, on posters, by mail, and on social media.
- » **Thinking strategically about the best time and place to share information.** For example, some companies have used web portals and social media channels to provide links to tobacco cessation resources.
- » **Using bidirectional communications to engage employees.** For example, you can provide dedicated time during staff meetings for managers to provide information and answer questions.

Element 4. Use a Holistic Approach to Health Promotion

A holistic approach that addresses multiple risk factors and conditions—not just high blood pressure and high cholesterol—can benefit your employees and your organization overall. Risk factors, such as poor nutrition, lack of physical activity, and smoking, can all cause heart disease and stroke. Other conditions, such as diabetes and obesity, are also risk factors for heart disease and stroke. By choosing a WHP program that targets multiple conditions at once, you can improve the health of your employees and lower your health care costs.

In 2017, CDC conducted a nationally representative survey of U.S. employers to collect information about WHP programs and practices in worksites of all sizes and industries and in all U.S. regions.⁶ The resulting report, *Workplace Health in America 2017*, identified several ways that employers can create healthy and safe work environments and help their employees make healthy decisions.

The *Workplace Health in America 2017* report used the data collected to identify several opportunities for improvement, including the following:

- » **Use CDC resources for successful implementation.** The survey found that only 50.2% of workplaces with a WHP program had a health improvement plan or were using data to guide their decisions or evaluate their program.⁶ Less than half (45.9%) thought it would be helpful to receive training in program planning, implementation, and evaluation.⁶ The [CDC Workplace Health Resource Center](#) offers a wide range of free tools and resources that you can use to tailor your WHP program to the specific needs and interests of your employees. These resources can save you time and money.

- » **Commit the resources needed to develop and sustain a comprehensive program.** The survey did not identify any factor, such as industry or size, that predicted whether a workplace had a comprehensive health promotion program. It did find that employers with comprehensive programs had put financial and personnel resources behind the program and maintained it for several years, giving it time to develop. You can use this approach to enhance the development, sustainability, and comprehensiveness of a program over time.
- » **Use CDC resources to overcome barriers.** The survey found that all workplaces, regardless of industry or size, had barriers to offering a WHP program. These barriers include cost, competing business demands, lack of employee interest, lack of experienced staff, and lack of physical space. Only 36% of employers had an annual budget for WHP programs, and employee participation in all types of wellness programs was less than 25%.⁶ To increase interest from employees and senior leaders, start small and set clear, reasonable goals that can be measured. The [CDC Workplace Health Resource Center](#) can provide resources to help you overcome barriers.

Create a Supportive Environment

Another way to use a holistic approach to health promotion is to make policy and environmental changes that promote a culture of good health in your workplace. For example, you can help your employees be more physically active by providing onsite exercise facilities or walking trails or by covering the cost of local gym memberships. You can help them eat a healthier diet by lowering the cost of healthy foods and drinks in workplace cafeterias or by offering healthy options in vending machines.

These types of changes can have a positive effect on the health, health care costs, productivity, and performance of your employees.^{38,39}

Element 5. Evaluate Your Efforts

Once you have implemented a WHP program, you will need to evaluate it to determine whether it is working as intended. The results of your evaluation can help ensure that you are using evidence-based practices to promote employee health and foster a healthy work environment.

An outcome evaluation assesses the impact of a program. As noted in the table below, there are several ways to assess impact, such as health impact, financial outcomes, and productivity. You can also conduct formative and process evaluations to assess the success of your WHP program. A formative evaluation can help you determine whether a WHP program is feasible, appropriate, and acceptable to your employees before you implement it. You can conduct this type of evaluation when a new program is being developed or when an existing program is being adapted or modified. A process evaluation can help you determine whether your program activities, such as efforts to recruit participants, were carried out as intended.

Before you choose an evaluation method, look at what other organizations have done. See what metrics have been used to evaluate programs like yours. Work with key partners to determine what metrics align best with the priorities of your organization's workplace health strategy.

Whatever evaluation method you choose, make sure you protect employee confidentiality.

Examples of Common Outcome Measures

Outcome Measure	Definition	Example
Value of Investment	Value of investment (VOI) is a model that allows businesses to analyze the relationship between a wide range of metrics, such as workers' compensation costs, and evaluate well-being programs. It focuses on population health improvement, company culture, and performance. ⁴⁰	One VOI outcome measure is employer reputation. A study on causal effects of workplace wellness programs on medical spending, employee productivity, health behaviors, and well-being found an increase in the number of employees who believe that management places a priority on health and safety. ⁴¹
Financial Outcomes	Financial outcomes describe return on investment (ROI), which is used to show direct financial returns resulting from an investment. ⁴² Related outcomes and metrics of interest include disability and workers' compensation.	Company A estimates that workplace wellness programs have saved the company about \$250 million on health care costs over the past decade, with a return of \$2.71 for every dollar spent. ⁴³
Health Impact	Health impact is a measure of the change in health status of an individual or group that can be attributed to intervention. ⁴⁴ Related outcomes and metrics of interest include adherence, risk reduction, behavior change, and employee health improvement.	Company B saw an overall employee health risk level decrease from 10.1% to 6.0%. The percentage of employees in the lowest-risk category for heart disease and stroke increased from 34.9% to 39.0%. ⁴⁵
Productivity and Performance	Productivity and performance measures presenteeism and absenteeism and the extent to which health and well-being may affect performance at work.	A study on employee absenteeism and employer costs found that absenteeism costs ranged from \$16 to \$81 for small employers and \$17 to \$286 for larger employers. ⁴⁶
Program Participation, Engagement, and Retainment	Program participation, engagement, and retainment are the number or percentage of employees who join a workplace wellness program, are engaged in the program, and continue participating in the program. Related outcomes include knowledge and interest in learning and participating in more programs.	A study on job satisfaction and absenteeism found higher (mean = 3.76) job satisfaction for employees who participated in the wellness program than for those who did not (mean = 3.53). ⁴⁷ A study on workplace wellness programs found a significantly higher rate of some positive self-reported health behaviors among employees who participated than in those who did not. ⁴⁸
Organizational Support	Organizational support can include management and leadership support, environmental support, and policies or system supports, such as health insurance benefits. ⁴⁹	Company C's Learning and Development Wellness Program offered a health insurance premium incentive for participating employees. ² The company saw a 53% decrease in the number of participating employees whose total cholesterol was "high risk" and a 52% decrease in the number of employees whose blood pressure was "high." ²



These resources can help you evaluate your WHP program:

- » [CDC's Worksite Health ScoreCard](#)
- » [AHA's Workplace Health Achievement Index](#)
- » [Healthy People 2030 Workplace Objectives](#)
- » [HERO's Program Measurement and Evaluation Guide](#)
- » [WELCOA Well Workplace Checklist](#)

These resources provide information about evidence-based and best practice strategies, including the following:

- » Health screening and disease management programs for high blood pressure and high cholesterol.
- » Health insurance coverage for blood pressure and cholesterol-lowering medicines.
- » Educational materials that describe the signs and symptoms of heart attack and stroke.

Policy Considerations

Most of the strategies discussed in this guide focus on policies and programs that are unique to the workplace. Although you may know best what will work in your organization, your knowledge may be limited to your workplace. You also need to be aware of federal and state policies, including statutes and regulations, that are intended to promote or govern workplace health programs and improve health at the population level.^{50,51}

For example, the Employee Retirement Income Security Act of 1974 (ERISA) is a federal statute that sets minimum standards for private employee benefit plans.⁵² It is interpreted broadly as regulating employer health benefit plans and has been found to preempt state law on certain issues. Other federal laws, such as the [Genetic Information Nondiscrimination Act of 2008](#), may also affect employer benefit plans.

In addition, your state may have laws designed to support WHP programs. In 2017, CDC's Division for Heart Disease and Stroke Prevention conducted a study to collect information about these state laws. The study found that the laws had several common components, including the following:⁵³

- » Incentives for employees who participate in or meet goals associated with WHP program activities.
- » Environmental supports, such as automated external defibrillators at worksites.
- » Grants and tax incentives to businesses that develop or maintain WHP programs.
- » Guidance on how to implement a WHP program.
- » Health promotion activities that target specific health conditions, such as high blood pressure and high cholesterol.

Additional Resources

This guide can help you plan, put into action, and evaluate a comprehensive WHP program to improve the heart and brain health of your employees. Many other resources are available to help you through this process, including the following:

Information About Heart Disease and Stroke

- » [CDC's Division for Heart Disease and Stroke Prevention website](#)
- » [CDC's Heart Disease website](#)
- » [CDC's Stroke website](#)
- » [CDC's Workplace Health Promotion Resource Center](#)
- » [CDC's 6|18 Initiative's Control High Blood Pressure webpage](#)
- » [CDC's Moving into Action: Promoting Heart-Healthy and Stroke-Free Communities for Employers](#)
- » [Surgeon General's Call to Action to Control Hypertension](#)
- » [The Community Preventive Services Task Force's Findings for Worksite Health](#)
- » [AHA's High Blood Pressure website](#)
- » [AHA's Five Simple Steps to Control Your Blood Pressure](#)

Information About Coordinated and Comprehensive WHP Programs

- » [CDC's A Purchaser's Guide to Clinical Preventive Services: Moving Science into Coverage](#)
- » [CDC's Million Hearts® Action Guide: Action Steps for Employers](#)
- » [CDC's Million Hearts® Action Guide: Medication Adherence: Action Steps for Health Benefit Managers](#)
- » [CDC's Total Worker Health](#)
- » [CDC's Workplace Health Model](#)
- » [CDC's Workplace Health Promotion website](#)
- » [CDC's Work@Health Program](#)
- » [AHRQ's Consumer Assessment of Healthcare Providers and Systems](#)
- » [AHRQ's Medical Expenditure Panel Survey Insurance/Employer Component](#)
- » [U.S. Equal Employment Opportunity Commission's List of Enforced Laws](#)
- » [HERO's Employee Engagement in Health & Well-Being: Influencers, Outcomes, and Practice Considerations](#)
- » [NBCH's eValue8™](#)
- » [NCQA's Healthcare Effectiveness Data and Information Set: Measures and Technical Resources](#)
- » [Robert Wood Johnson Foundation's Reform in Action: Six Resources for Employers about Improving Health and Health Care for Employees](#)

Website addresses of nonfederal organizations are provided solely as a service to our readers. Provision of an address does not constitute an endorsement by the Centers for Disease Control and Prevention (CDC) or the federal government, and none should be inferred. CDC is not responsible for the content of other organizations' web pages.

References

1. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. [About Multiple Cause of Death, 1999–2019](#). CDC WONDER Online Database. Accessed December 22, 2021.
2. Koffman DMM, Goetzel RZ, Anwuri VV, Shore KK, Orenstein D, LaPier T. Heart healthy and stroke free: successful business strategies to prevent cardiovascular disease. *Am J Prev Med* 2005;29(5, Suppl 1):113–21. doi:10.1016/j.amepre.2005.07.017
3. Virani SS, Alonso A, Benjamin EJ, Bittencourt MS, Callaway CW, Carson AP, et al. Heart disease and stroke statistics—2020 update: a report from the American Heart Association. *Circulation* 2020;141(9):e139–e596. doi:10.1161/CIR.0000000000000757
4. U.S. Department of Health and Human Services. [The Surgeon General's Call to Action to Control Hypertension](#) (PDF, 1.91 MB). 2020. Accessed December 22, 2021.
5. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. [Heart Disease](#). Updated January 19, 2017. Accessed December 22, 2021.
6. Linnan LA, Cluff L, Lang JE, Penne M, Leff MS. Results of the Workplace Health in America Survey. *Am J Health Promot* 2019;33(5):652–65. doi:10.1177/0890117119842047
7. Goetzel RZ, Roemer EC, Kent KB, Smith KJ. [Comprehensive Worksite Health Promotion Programs](#). 2013. Accessed December 22, 2021.
8. U.S. Bureau of Labor Statistics. [Employment Situation](#). May 2021. Accessed December 22, 2021.
9. Claxton G, Rae M, Damico A, Young G, McDermott D. [2019 Employer Health Benefits Survey](#). 2019. Accessed December 22, 2021.
10. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. [Workplace Health Promotion: Assessment](#). Accessed December 22, 2021.
11. Hammerback K, Hannon PA, Harris JR, Clegg–Thorp C, Kohn M, Parrish A. Perspectives on workplace health promotion among employees in low-wage industries. *Am J Health Promot* 2015;29(6):84–392. doi:10.4278/ajhp.130924–QUAL–495
12. Zhang Y, Flum M, West C, Punnett L. Assessing organizational readiness for a participatory occupational health/health promotion intervention in skilled nursing facilities. *Health Prom Prac* 2015;16(5):724–32. doi:10.1177/1524839915573945
13. Haisley E, Volpp KG, Pellathy T, Loewenstein G. The impact of alternative incentive schemes on completion of health risk assessments. *Am J Health Promot* 2012;26(3):184–8. doi:10.4278/ajhp.100729–ARB–257
14. Mullane SL, Rydell SA, Larouche ML, Toledo MJL, Feltes LH, Vuong B, et al. Enrollment strategies, barriers to participation, and reach of a workplace intervention targeting sedentary behavior. *Am J Health Promot* 2019;33(2):225–36. doi:10.1177/0890117118784228
15. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. [Engaging Employees in their Health and Wellness](#) (PDF, 323 KB). 2018. Accessed December 22, 2021.
16. U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. [Workplace](#). 2021. Accessed December 22, 2021.
17. Soler RE, Leeks KD, Razi S, Hopkins DP, Griffith M, Aten A, et al. A systematic review of selected interventions for worksite health promotion. The assessment of health risks with feedback. *Am J Prev Med* 2010;38(2 Suppl):S237–S262. doi:10.1016/j.amepre.2009.10.030
18. Hochart C, Lang M. Impact of a comprehensive worksite wellness program on health risk, utilization, and health care costs. *Popul Health Manag* 2011;14(3):111–6. doi:10.1089/pop.2010.0009

19. Maciosek MV, LaFrance AB, Dehmer SP, McGree DA, Flottemesch TJ, Xu Z, Solberg LI. Updated priorities among effective clinical preventive services. *Ann Fam Med* 2017;15(1):14–22. doi:10.1370/afm.2017
20. Johns Hopkins Bloomberg School of Public Health, Institute for Health and Productivity Studies. [From Evidence to Practice: Workplace Wellness that Works](#) (PDF, 833 KB). 2015. Accessed December 22, 2021.
21. Kelly JT. Evaluating employee health risks due to hypertension and obesity: self-testing workplace health stations. *Postgrad Med* 2009;121(1):152–8. doi:10.3810/pgm.2009.01.1964
22. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. [Engaging Remote Employees in Their Health and Wellness Programs](#). Accessed December 22, 2021.
23. Chapman LS. Meta-evaluation of worksite health promotion economic return studies: 2012 update. *Am J Health Promot* 2012;26(4):1–12. doi:10.4278/ajhp.26.4.tahp
24. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. [Change Through Planning at Greater Lakes Mental Healthcare: Case Study](#) (333 KB). 2019. Accessed December 22, 2021.
25. Matson Koffman DM, Lanza A, Phillips Campbell K. A purchaser's guide to clinical preventive services: a tool to improve health care coverage for prevention. *Prev Chronic Dis* 2008;5(2):A59. PMID: 18341794. PMCID: PMC2396996.
26. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. [What Could Be Addressed in an Evidence-Informed State Workplace Health Promotion Law?](#) (PDF, 1.97 MB). 2017. Accessed December 22, 2021.
27. Claxton G, McDermott D, Cox C, Hudman J, Kamal R, Rae M. [Employer Strategies to Reduce Health Costs and Improve Quality Through Network Configuration](#). *Health Systems Tracker*. 2019. Accessed December 22, 2021.
28. Wagner RB. The search for value: value-based insurance design in both public and private sectors. *Compens Benefits Rev* 2011;43(3):190–5. doi:10.1177/0886368711404657
29. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. [Understanding Value-Based Insurance Design](#) (PDF, 923 KB). 2015. Accessed December 22, 2021.
30. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. [Workplace Health Promotion: Benefits | Blood Pressure Interventions](#). 2020. Accessed December 22, 2021.
31. U.S. Preventive Services Task Force. Screening for hypertension in adults: U.S. Preventive Services Task Force reaffirmation recommendation statement. *JAMA* 2021;325(16):1650–6. doi:10.1001/jama.2021.4987
32. Horwitz JR, Kelly BD, DiNardo JE. Wellness incentives in the workplace: cost savings through cost shifting to unhealthy workers. *Health Aff (Millwood)* 2013;32(3):468–76. doi:10.1377/hlthaff.2012.0683
33. Taitel MS, Haufle V, Heck D, Loeppke R, Fetterolf D. Incentives and other factors associated with employee participation in health risk assessments. *J Occup Environ Med* 2008;50(8):863–72. doi:10.1097/JOM.0b013e3181845fe2
34. Pronk N. Worksite health promotion: Incentives—the key to stimulating awareness, interest, and participation. *ACSMs Health Fit J* 2004;8(1):31–3. doi:10.1097/00135124-200401000-00013
35. Kent K, Goetzel RZ, Roemer EC, Prasad A, Freundlich N. Promoting healthy workplaces by building cultures of health and applying strategic communications. *J Occup Environ Med* 2016;58(2):114–22. doi:10.1097/JOM.0000000000000629
36. Wessels K, Esen E, Schramm J, DiNicola S. [SHRM Survey Findings: 2016 Strategic Benefits—Assessment and Communication of Benefits](#) (PDF, 565 KB). 2016. Accessed December 22, 2021.
37. Mattke S, Liu H, Caloyeras J, Huang CY, Van Busum KR, Khodyakov D, Shier V. Workplace wellness programs study: final report. *Rand Health Q* 2013;3(2):7. PMID: 28083294. PMCID: PMC4945172.
38. Fabius R, Thayer RD, Konicki DL, Yarborough CM, Peterson KW, Isaac F, et al. The link between workforce health and safety and the health of the bottom line: Tracking market performance of companies that nurture a “culture of health.” *J Occup Environ Med* 2013;55(9):993–1000.

39. Fabius R, Frazee SG, Thayer D, Kirshenbaum D, Reynolds J. The correlation of a corporate culture of health assessment score and health care cost trend. *J Occup Environ Med* 2018;60(6):507–14. doi:10.1097/JOM.0000000000001305
40. Virgin Pulse. [Value on Investment—An Important Metric in Health and Wellbeing](#). Accessed December 22, 2021.
41. Jones D, Molitor D, Reif J. What do workplace wellness programs do? Evidence from the Illinois Workplace Wellness Study. *Q J Econ* 2019;134(4):1747–91. doi:10.1093/qje/qjz023
42. Chapel J. [CDC Coffee Break: Economic Evaluation: Alternatives to ROI to Show Societal Benefits](#) (PDF, 1.68 MB). Accessed December 22, 2021.
43. Berry LL, Mirabito AM, Baun WB. [What's the Hard Return on Employee Wellness Programs?](#) Harvard Business Review. Accessed December 22, 2021.
44. Canadian Institute for Health Information. [Outcomes](#). Accessed December 22, 2021.
45. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. [A Flexible Approach to Wellness Leads to Reduced Risk to Heart Disease and Stroke at Hussey Seating](#) (PDF, 838 KB). 2020. Accessed December 22, 2021.
46. Asay GRB, Roy K, Lang JE, Payne RL, Howard DH. Absenteeism and employer costs associated with chronic diseases and health risk factors in the U.S. workforce. *Prev Chronic Dis* 2016;13:E141. doi:10.5888/pcd13.150503
47. Abdullah DNMA, Lee OY. Effects of wellness programs on job satisfaction, stress, and absenteeism between two groups of employees (attended and not attended). *Procedia Soc Behav Sci* 2012;65:479–84. doi:10.1016/j.sbspro.2012.11.152
48. Song Z, Baicker K. Effect of a workplace wellness program on employee health and economic outcomes: a randomized clinical trial. *JAMA* 2019; 321(15):1491–501. doi:10.1001/jama.2019.3307
49. Earnesty D. [Worksite Wellness Organizational Supports](#). Michigan State University. Accessed December 22, 2021.
50. VanderVeur J, Gilchrist S, Matson-Koffman D. An overview of state policies supporting worksite health promotion programs. *Am J Health Promot* 2017;31(3):232–42. doi:10.4278/ajhp.141008–QUAN–505
51. Pomeranz JL, Garcia AM, Vesprey R, Davey A. Variability and limits of U.S. state laws regulating workplace wellness programs. *Am J Public Health* 2016;106(6):1028–31. doi:10.2105/ajph.2016.303144
52. U.S. Department of Labor. [Employee Retirement Income Security Act \(ERISA\)](#). Accessed December 22, 2021.
53. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. [State Law Fact Sheet: A Summary of Worksite Health Promotion Laws in Effect as of July 31, 2016](#) (PDF, 490 KB). 2016. Accessed December 22, 2021.