

In collaboration with PwC



Promoting Health and Well-Being: Employer Strategies for Encouraging Healthy Weight and Metabolic Wellness

INSIGHT REPORT

SEPTEMBER 2024



Contents

Foreword	3
Executive summary	4
Introduction	5
1 The benefits of investing in employee health initiatives	11
1.1 Expected employer benefits	11
1.2 Expected long-term societal benefits	13
2 Guide to action	15
2.1 Emerging approaches to enable healthy weight and cardiometabolic health in the workplace	15
2.2 Main challenges in deploying weight and cardiometabolic health initiatives	19
2.3 Guiding principles	20
2.4 Step-by-step approach to investing in employee health	22
3 Examining the factors for success	25
3.1 Exploring the conditions for healthy weight management in the workplace	25
3.2 Implementing weight and cardiometabolic health initiatives on a global scale	26
4 Making an impact	27
4.1 Emerging models in employee weight and cardiometabolic health management	27
4.2 The role of employers in the broader ecosystem	28
Conclusion	30
Appendix: Methodology	32
Contributors	33
Endnotes	36

Disclaimer

This document is published by the World Economic Forum as a contribution to a project, insight area or interaction. The findings, interpretations and conclusions expressed herein are a result of a collaborative process facilitated and endorsed by the World Economic Forum but whose results do not necessarily represent the views of the World Economic Forum, nor the entirety of its Members, Partners or other stakeholders.

© 2024 World Economic Forum. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, including photocopying and recording, or by any information storage and retrieval system.

Foreword



Shyam Bishen
Head, Centre for Health
and Healthcare; Member of
the Executive Committee,
World Economic Forum

The urgency to address obesity has never been greater. More than a billion people globally are living with obesity, which is linked to over 200 health conditions, including cancer, cardiovascular disease, diabetes and musculoskeletal disorders. If current trends continue, obesity rates are projected to nearly double to 1.9 billion people by 2035. Worldwide, obesity in children increased tenfold between 1975 and 2016. If we remain passive, the consequences will be dire. Various factors have contributed to the current epidemic, necessitating a comprehensive, multifaceted response rooted in public-private collaboration.

Given the complex nature of the obesity challenge and the proposed integrated solutions, a whole-of-society approach is essential to make meaningful progress. Building and strengthening public-private partnerships that bring together industry, academia and governments can enable us to collaboratively tackle this major public health challenge. Industry has the opportunity to play a significant leadership role by innovating and providing effective solutions

to prevent, manage and treat obesity. Academia can enhance the scientific evidence base and deepen societal understanding of obesity and the related facets through rigorous research. Governments can incentivize health-promoting behaviours and support policies that facilitate healthier lifestyles within both their own workforces and the citizens they govern. Civil society members, particularly those with lived experience, can advocate and shape the narrative and solutions to ensure they are respectful, relevant and effective.

In this landscape, employers have a unique and critical role to play as catalysts of change, not just as employers of more than 1.3 billion people in the formal workforce, but also as key contributors to the health of families, communities and society. This report explores the pivotal role of employers in promoting healthy weight and metabolic wellness, especially in the prevention and management of obesity, by highlighting the strategies and benefits of investing in the holistic health of their employees.



Dominik Hotz
Advisory Leader,
PwC Switzerland

Investing in the physical health of employees in the workplace is not only a path to organizational success, but a societal imperative in today's landscape. Global health organizations and civil society are calling for action focused on chronic disease and obesity, the burden of which is steadily growing across the globe. Stakeholders recognize that innovative technologies, such as the use of predictive analytics and artificial intelligence for personalized and population health, the application of behavioural science to public health, and the recent availability of much-discussed weight-management drugs, represent unprecedented opportunities for success.

To truly succeed, organizations must integrate well-being into every aspect of their employee experience. This means that employers have

the opportunity to build a holistic approach that prioritizes physical – and mental – health into their organizations' culture, policies and incentives.

PwC's latest *Global Workforce Hopes and Fears Survey* reveals that 77% of workers globally feel ready to adapt to new ways of working. We kept this in mind while working collaboratively with the World Economic Forum and partners to create practical recommendations, informed by scientific data and expert opinions, to inspire organizations willing to prioritize physical health in the workplace.

By seizing this opportunity, organizations can enhance productivity, attract top talent and contribute to fighting obesity and cardiometabolic diseases for a healthier future.

Executive summary

Employers have a unique opportunity to support the prevention and management of obesity and cardiometabolic diseases among their workforce.

The prevalence of obesity and cardiometabolic diseases has surged globally over the past decades, reaching unprecedented levels, with trends in younger generations even accelerating. This poses challenges to individuals, but also to public health, workforces and societies overall. Among the key threats are the health consequences and rising costs, as well as the stigma and discrimination for those affected. With the problem becoming so great that public systems alone will not be able to address it, all stakeholders are therefore called on to contribute to collaborative, whole-of-society efforts.

This paper focuses on the role of employers in fostering preventative health at work. Not only do employers have the opportunity to engage with a large portion of the adult population, but the workplace experience may also contribute to people's ability to maintain healthy lifestyles. By investing in workplace interventions that target physical health, employers can support better health outcomes while enhancing employee engagement, productivity, morale and retention, as well as reducing medical costs and absenteeism. Moreover, such investments can have a positive ripple effect on society, promoting equity and inclusion in the workplace and contributing to societal resilience in the face of health crises.

Employers worldwide are increasingly engaging in overall health and well-being initiatives, but more can be done; for example, by promoting a shift in ways of working that sets employee well-being as a strategic organizational pillar.

Such a strategic shift requires leadership commitment, and involves identifying workplace risks and workforce needs, designing tailored and holistic interventions, communicating initiatives effectively and, finally, enabling healthy behaviour

by encouraging adjustments in company culture and processes. The focus should be not only be on improving individual behaviours but rather on creating an enabling environment within which employees can thrive by excelling in their job while nurturing positive lifestyle choices.

This report also reviews successful implementation approaches used at leading organizations, which combine the use of innovative technology and data to enhance the employee experience. This may involve the combined use of data analytics, digital technologies, behavioural science, gamification and social support.

There are systemic conditions that can enable or hinder an employer's ability to support the physical health of its employees, such as healthcare system financing models, legal requirements and cultural norms, as well as employer-specific factors, such as industry type and workforce composition. Similarly, challenges are observed when implementing weight and cardiometabolic health initiatives on a global scale, considering the diversity and complexity of local contexts and needs.

Although employers are a crucial stakeholder in supporting the prevention and management of obesity, their efforts must be substantiated through a whole-of-society approach involving public health experts, patient groups, insurers, service providers, academic institutions and governments. Moreover, supporting healthy weight and metabolisms in the workplace setting is still a nascent area for most organizations, and therefore necessitates increased collaboration across academia and public health institutions to generate evidence and strengthen implementation research in order to foster the adoption of pivotal workplace well-being interventions.

Introduction

The prevalence of obesity and cardiometabolic diseases has surged globally over the past decades.

The global burden of obesity and cardiometabolic diseases (CMDs) has reached unprecedented levels, posing significant challenges to public health, societies and economies worldwide. According to the NCD Risk Factor Collaboration, more than 1 billion people around the world live with obesity and 3 billion live with overweight.¹ Overweight and obesity are associated with deaths related to numerous non-communicable diseases, including diabetes and cancer, in addition to carrying a greater risk of cardiovascular disease, which is the primary cause of morbidity and mortality worldwide.^{2,3}

The latest data from the Global Burden of Disease study shows that metabolic risk factors – which are key drivers of obesity and CMDs – are behind

a drastic increase of the global burden of disease over the past three decades, causing ill health and premature deaths. Among metabolic risk factors, elevated body mass index (BMI), or overweight, and hyperglycaemia (i.e. elevated blood sugar levels) are particularly worrisome, as global trends keep rising, in contrast with the containment or improvement observed for other metabolic risk factor levels (Figure 1). In particular, overweight drove the largest increase in terms of disability-adjusted life years (DALYs) since 1990, and alone contributes to 1,600 DALYs per 100,000 people – an 81% increase compared to 30 years ago (Figure 1a). Moreover, overweight has become the primary metabolic factor driving ill health in the 15- to 49-year-old population (Figure 1b).⁴



Definitions

Obesity

Based on the World Health Organization (WHO) definition, obesity is a chronic complex disease defined by excessive fat deposits that can impair health. A body mass index (BMI) equal to or over 25 is considered overweight, while a BMI equal to or over 30 is considered obese.⁵

Cardiometabolic diseases (CMDs)

In this report, the term refers to a group of conditions including cardiovascular diseases, diabetes and fatty liver diseases that share similar risk factors.

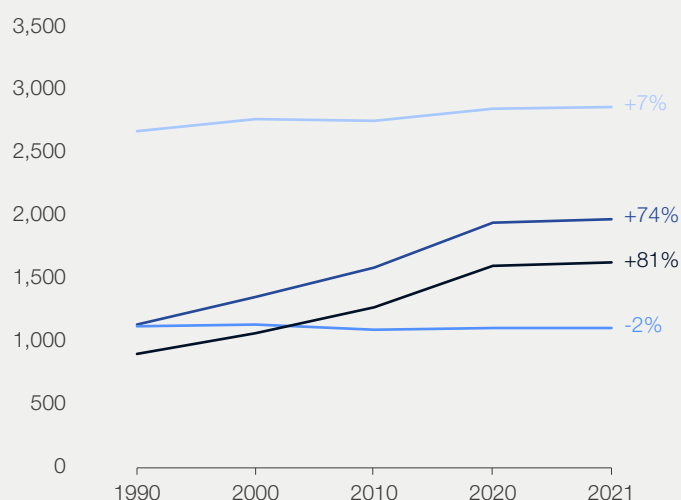
Metabolic risk factors

In this report, the term is used to collectively refer to those factors that primarily drive cardiometabolic diseases, i.e. uncontrolled/abnormal blood pressure, triglyceride levels, HDL-cholesterol levels, fasting plasma glucose and BMI, in line with the Global Burden of Disease study terminology.

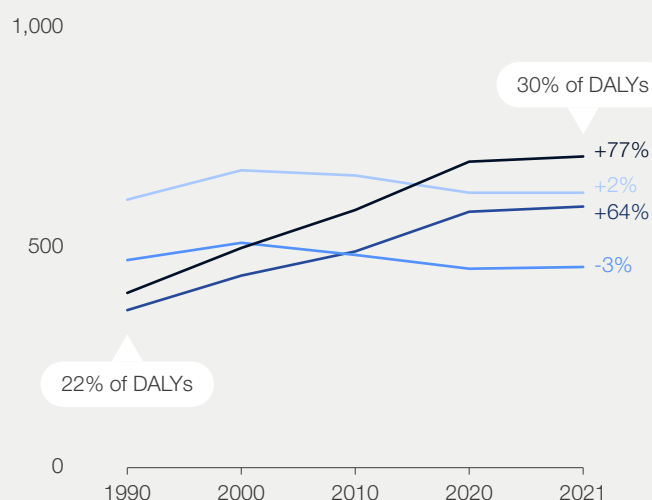


FIGURE 1 | Burden of disease attributable to metabolic risk factors

1A: Burden of disease attributable to metabolic risk factors across the entire population globally (DALY per 100,000)



1B: Burden of disease attributable to metabolic risk factors in the population aged 15 to 49 years old globally (DALY per 100,000)



● High blood pressure ● High LDL cholesterol ● High fasting plasma glucose ● High BMI

Note: BMI: body mass index; LDL: low-density lipoprotein.

Source: Institute for Health Metrics and Evaluation (IHME). (2024). Global Compare data visualization; PwC analysis

Rising socioeconomic costs of obesity and CMDs extend to healthcare systems, employers and societies

Obesity and CMDs have far-reaching consequences that go beyond just the individuals who are affected and extend also to health systems and society as a whole.

Based on current trends, the socioeconomic costs associated with obesity and CMDs will continue to rise steadily over the next decades. These costs encompass not only the direct expenses associated with managing the illnesses themselves, but also the indirect costs stemming from productivity losses and business repercussions. Additionally, there may be other consequences related to exacerbating inequalities and the perpetuation of stigma and discrimination faced by individuals living with chronic disease.

Healthcare systems: Chronic disease management generally requires repeated medical treatments, hospitalizations and adjustments or intensification of therapies, placing a heavy burden on healthcare systems worldwide. When looking at obesity

trends, it is predicted that the global economic costs incurred will increase from approximately \$2 trillion in 2020 to more than \$3 trillion by 2030, and exceed \$18 trillion by 2060, thus more than 3% of the world GDP.⁶ Looking more broadly at CMDs, studies confirm their burden on healthcare systems. For example, research conducted in the United States estimated that, in 2016, 27% of the total health spend was attributable to modifiable risk factors – such as high BMI, hypertension, high fasting plasma glucose, poor nutrition and smoking.⁷ In the United Kingdom, similar patterns are observed, with obesity, hypertension and poor nutrition being major contributors to health spend. In 2014–2015, the National Health Service in the UK spent approximately £6.1 billion on treating obesity-related illnesses, a figure expected to rise to £9.7 billion by 2050.⁸ In Singapore, metabolic risks alone accounted for a societal cost of approximately \$1.58 billion in 2019; of those, healthcare costs amounted to \$461 million, representing 5.6% of Singapore's healthcare spending.⁹

Employers: Obesity and metabolic risk factors are known to trigger a negative downstream impact on productivity and absenteeism. For instance, a poor cardiometabolic risk profile increases absenteeism (extended sick leave), presenteeism (where employees are physically present but not fully productive due to health issues) and the time spent in ill health, and may also affect employee engagement.^{10,11} The Organisation for Economic Co-operation and Development (OECD) carried out an analysis in 2019 revealing that across the 52 examined countries, overweight effectively reduces the workforce by approximately 54 million people annually.¹² It is important to note that, in some employer-insured countries, employers bear substantial costs related to lost productivity, employee turnover and healthcare coverage: for instance, the annual cost of obesity-related absenteeism in the US in 2023 was estimated to be \$82.3 billion and that of obesity-related presenteeism, \$113.8 billion.¹³

Society: Obesity and CMDs can affect a person's job performance, career opportunities and social interactions. Stigma and discrimination against individuals living with obesity or with excess weight – as well as mental health conditions, some infectious diseases and cancer – are prevalent in many workplaces and social groups, leading to lower self-esteem, decreased job satisfaction and hindered career advancement.¹⁴ These conditions are also a major source of inequities within and between countries.^{15,16} A correlation between low socioeconomic status and the prevalence of obesity and CMDs is also observed, with disease potentially onsetting early in life, which further amplifies and exacerbates the consequences of illness on individuals and society as a whole.¹⁷

Overall, the available data confirms that obesity and CMDs have an impact not only on the individuals affected, but on employers, healthcare systems and society at large.

Environmental and socioeconomic factors contribute to obesity and the CMD burden

Figure 1 shows that high BMI and high plasma glucose, which drive the burden of disease related to obesity and diabetes respectively, keep rising globally – especially in the youngest population, despite improvements observed on other risk factors. Widespread assumptions, including in the workplace, may lead people to believe that weight management is a matter of willpower, personal responsibility and behavioural change; however, genetic, biological, environmental and socioeconomic factors, some of which are outside of an individual's control, play crucial roles in the onset of obesity.^{18,19} “Obesogenic environments” and socioeconomic determinants of health can make it difficult to maintain a healthy weight. Factors such as lower income levels, limited access

to healthy affordable food, lack of access to gyms or sports facilities, walkable neighbourhoods and parks, exposure to industrial chemicals and pollutants, increased stress, limited access to healthcare and medical treatments, as well as lack of awareness and information are all drivers that may lead to obesity and cardiometabolic issues.^{20,21}

As a result of this complex combination of factors potentially affecting weight health and cardiometabolic status, it can be challenging to achieve the goal of reducing excess weight. Progress may be slow and setbacks are frequently observed. Individuals navigating this journey require resilience and adequate support systems to supplement their efforts.

The workplace experience can have an impact on employees' well-being, weight and metabolic health

As members of the global workforce spend approximately one-third of their week at work on average, the workplace environment becomes an increasingly important opportunity to enable employees to maintain a healthy weight and metabolism.^{22,23} Predominantly sedentary behaviour in workplaces may contribute to excess weight gain and CMDs.²⁴ In 2021, the World Health Organization (WHO) and the International Labour Organization (ILO) estimated that 1.88 million deaths and almost 90 million DALYs globally are attributable to occupational risk factors and health

outcomes – with 80.7% of the deaths and 70.5% of the DALYs related to non-communicable diseases, including respiratory conditions, musculoskeletal disease, cancer, stroke and systemic heart disease.²⁵ Studies show that people working at least 40 hours a week have 1.4 times greater odds of developing obesity compared to those working less.²⁶ In addition, employees who work 55 hours or longer weekly have a higher risk of stroke than those working standard hours.²⁷ Psychological stress has also been associated with weight gain and cardiovascular diseases.

Many employers have started to acknowledge their role in ensuring a healthy workforce, both from a mental and physical perspective, by establishing, in addition to mandatory occupational health and safety activities, programmes covering overall health and well-being. A smaller set of global innovators have started investing in strategies to support better employee health outcomes, such as assessing weight, blood pressure, glycaemia and other metabolic parameters – a trend particularly visible in countries with employer-based health coverage (see “Call to action”).

Call to action

If left unaddressed, the burden of obesity and CMDs on individuals, employers, health systems and societies will continue to escalate, posing a significant threat to collective well-being.

Historically, the responsibility for tackling obesity and CMDs has been placed primarily on individuals and the public health sector. However, it has become clear that this approach alone is insufficient to cope with the rising burden – as this is influenced by social, economic, industrial and environmental determinants (Figure 2). Recognizing the evolving trends, the WHO now emphasizes the necessity for a multisectoral approach to effectively combat obesity and CMDs.³⁰ This means that all sectors of society are encouraged to work together to address the complex factors contributing to these health conditions.

Employers, together with other stakeholders, have the opportunity to play a role in the prevention and management of obesity and CMDs by investing in programmes that focus on healthy weight

Historically, employers have already successfully helped address public health issues by containing the spread of diseases and health risks among their workforce. This is the case, for example, in the African industrial mines’ commitment to deliver preventative and treatment worker programmes for malaria, HIV/AIDS and TB,²⁸ or the widespread workplace smoking ban policies, which have had a global, measurable impact on awareness, smoking rates and second-hand smoke exposure.²⁹

and metabolism, both in terms of risk factor identification and reduction, preventions and disease management.^{31,32,33,34} These programmes may focus on health promotion and education, a healthy lifestyle and diet, counselling and support of disease management, and be coupled with supportive policies and shifts in the ways of working to enable healthy choices by workers.

There are multiple benefits to be gained from fostering a work culture that prioritizes healthy behaviours. First, it enables employers to enhance employee engagement, well-being and morale, as well as increase productivity and reduce worker turnover. Second, by actively supporting the prevention and management of chronic health conditions, employers can contribute to reducing both direct and indirect medical costs. Third, such investments have a positive ripple effect on society, promoting equity and inclusion in the workplace and contributing to societal resilience in the face of health crises.

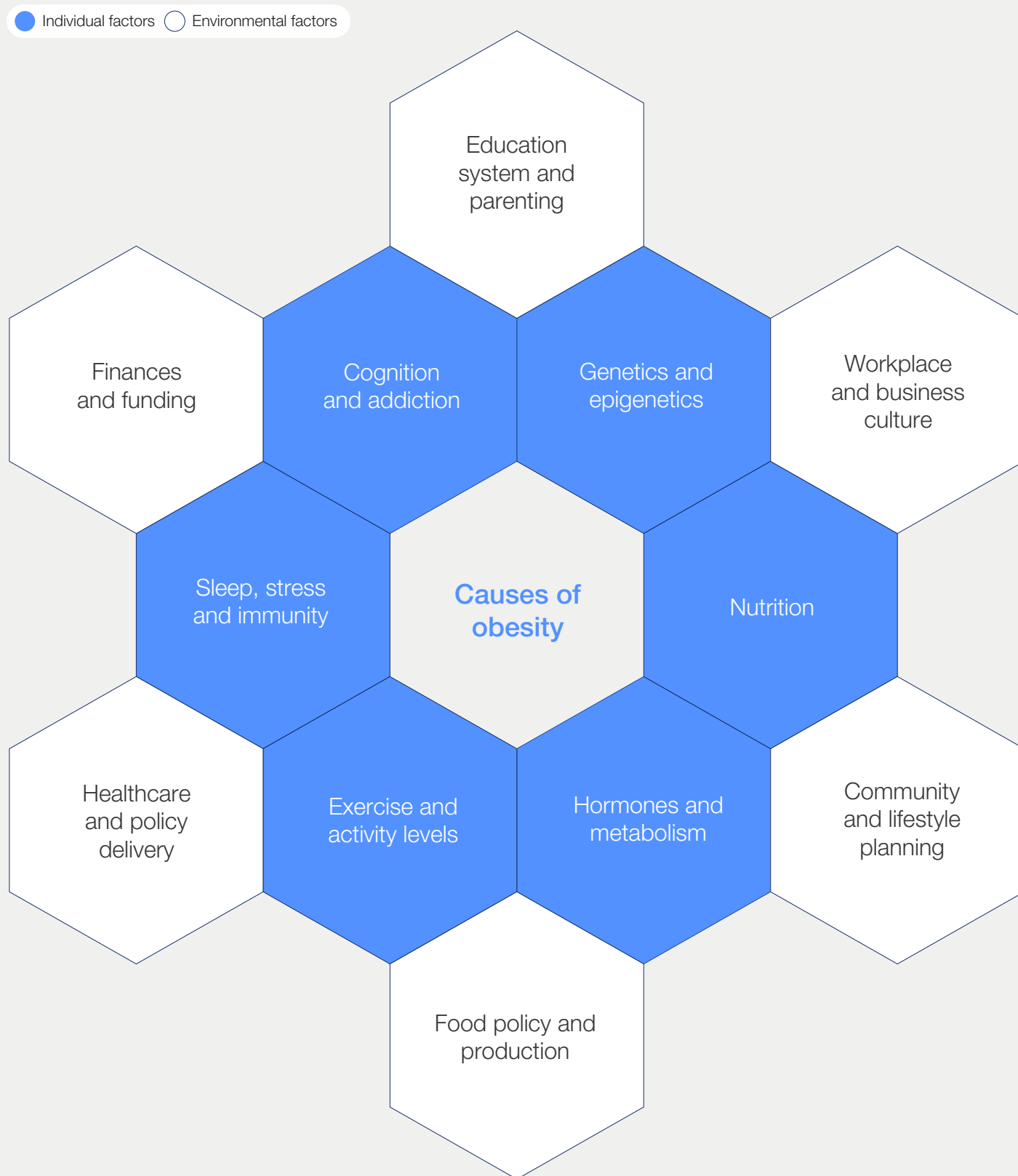


Obesity is a global issue, no country is immune to the obesity epidemic.

Francesca Celletti, Senior Advisor,
Obesity, Nutrition and Food Safety,
World Health Organization



Obesity is categorized by multifactorial aetiology, calling for a whole-of-society approach and response



Source: European Association for the Study of Obesity,
<https://cdn.easo.org/wp-content/uploads/2019/12/19172211/Causes-of-Obesity-A3.pdf>



What's new in this report?

The World Economic Forum [Healthy Workforces](#) initiative aims to inspire and generate innovative insights to empower organizations to prioritize and advance holistic health and well-being.

This insight report bridges a critical information gap by providing practical guidance for employers committed to workforce health. It also explores the emerging approaches that innovative employers globally are taking to address health outcomes in their workforce, with an emphasis on weight management and cardiometabolic health. Drawing insights from thought leaders, pioneering employers, leading international organizations, patient groups and scientific literature, the report aims to inspire actionable change (see “Call to action”).

Furthermore, the report highlights the potential of innovative partnership models and technology to support the implementation of health interventions and insight generation in workplace settings, including offering considerations on global programme implementation (see “Making an impact”).

Finally, the report amplifies the voices of leading experts on the crucial role that employers can play in a whole-of-society effort to fight obesity and cardiometabolic diseases, with an emphasis on cooperation with the public sector and academia (especially in generating robust, evidence-based research for well-being interventions). (See “The role of employers in the broader ecosystem”).

1

The benefits of investing in employee health initiatives

Together with recognized benefits on productivity and costs, employee well-being helps cultivate engagement, culture and social impact.

In examining these benefits, this section in particular focuses on the drivers of investment that are supported by relevant scientific data and other published sources (Figure 3).

1.1 Expected employer benefits

Investing in workplace interventions that target physical health, particularly weight and cardiometabolic health, can provide substantial benefits to employer organizations. Studies consistently confirm improvements in productivity and reductions in medical costs as direct outcomes of such investments. Beyond these quantifiable

metrics, companies also reap various organizational benefits, which, though less frequently measured in scientific studies, are often highlighted in grey literature, and supported by anecdotal evidence from subject-matter experts and industry stakeholders. Below is a summary of the key benefits for employers, backed by supportive evidence.

People-related benefits

- **Reduce indirect costs by increasing productivity, reducing presenteeism and absenteeism:** Poor physical health may have a negative impact on productivity and employer costs. Illness presenting downstream of obesity and cardiometabolic conditions, for instance, have been linked to higher rates of absenteeism and lower productivity, resulting in elevated indirect costs.^{35,36,37} Well-being programmes at work could enhance productivity and reduce absenteeism, especially by reducing the level of cardiometabolic risk factors such as blood pressure, LDL cholesterol and triglycerides, as well as BMI and waist circumference, while improving dietary habits.^{38,39}
- **Improve employee engagement, satisfaction and team culture:** Workplace interventions that successfully contribute to weight management, fitness improvement and reduction of coronary risks enhance employee engagement and satisfaction, as also supported by a systemic literature review that showed positive effective outcomes in 29 studies.⁴⁰
- **Increase talent retention and talent attraction:** Although there is limited data on the impact of workplace weight management and cardiometabolic health initiatives on talent retention and attraction, some sources suggest that offering workplace well-being programmes has the potential to improve employee retention through higher engagement.⁴¹ Consulted experts consistently confirm this observation, based on their personal knowledge and experience. Furthermore, employers who openly disclose work-life balance practices, such as flexible work arrangements and health and well-being programmes, are better positioned to attract talent from the Millennial and Generation Z (Gen Z) demographics.⁴²
- **Improve overall employee health and quality of life:** Workplace well-being programmes that encompass various aspects of well-being could have substantial positive effects on self-reported health behaviours, quality of life and overall employee health, as shown in studies assessing whole-system healthy workplace interventions in healthcare staff.^{43,44}



Business-related benefits

- **Reduce direct medical costs (applies to employer-insurer systems):** The direct costs to an employer increase when employees experience chronic illness,⁴⁵ which can be triggered by poor weight management and cardiometabolic health. Therefore, escalating healthcare expenses and the prevalence of obesity and related chronic illnesses among the workforce may significantly affect employers, especially when self-insured or supporting medical expenses. It has been estimated that the medical spend associated with overweight and obesity sustained by US employers in 2023 amounted to \$90 billion.⁴⁶ By implementing workplace well-being programmes, employers can contribute to a reduction in healthcare costs. For instance, a recent study analysed the financial impact of an employer-sponsored digital weight-management intensive lifestyle intervention programme. The study found that over a three-year period, users experienced a 12% reduction in medical expenditure compared to the control group. Also, the programme showed a return on investment (ROI) of \$2.3 for each dollar invested.⁴⁷
- **Improve employer differentiation, positioning and competitiveness:** While there is limited scientific evidence to substantiate the effectiveness of weight and cardiometabolic health initiatives in enhancing employer differentiation, positioning and competitiveness, anecdotal evidence reported by employers and experts strongly supports this aspect. Also, recent survey data from the US confirms that creating a competitive advantage over peers and matching employee interests are, together with health cost management, the top reasons to invest in employee health programmes. In particular, US employers report an increase in investments in weight management, health risk assessments and disease management programmes, together with a sustained interest in mental health programmes.⁴⁸ Engaged employers tend to disclose and promote their work-life balance practices, including flexible work arrangements, healthy nutrition in the workplace and well-being programmes, especially in order to attract younger generations such as Gen Z and Millennials.⁴⁹
- **Improve company reputation:** Implementing workplace health programmes can lead to enhanced company reputation and performance. In this respect, a study of European organizations showed that the more companies try to meet employee expectations in terms of occupational safety and health programmes, the more the companies' reputation and productivity increase. And, the more the reputation grows, the higher productivity gets, establishing a positive, self-reinforcing cycle.⁵⁰ Additionally, anecdotal evidence suggests that company reputation is also positively affected among customers when the notion of an "organization supporting employee health" is informally spread.
- **Align with company culture:** Some employers recognize the importance of investing in the physical health and well-being of members of their workforce in alignment with their company values and culture of care. As reported by experts, organizations that value people as their main asset are typically keener on offering a broad range of interventions such as peer coaching, well-being screenings and fitness facilities, even to the point of providing paid leave for participation in health activities. While trying to assess the impact of such investments, executives have acknowledged that continuing to invest in people's health is the "right thing to do" not only for employees but also for the company. They recognize that these investments provide more than just financial benefits, leading to a positive "cultural return" that contributes to overall company performance.

1.2 Expected long-term societal benefits

Experts in the field highlight the critical societal role employers play in supporting healthy weight and metabolism. However, research for this report revealed that while employers recognize the benefits for their employees and their businesses, they may be less aware of the positive effects their investments can have on society and larger systems. Yet investing in workforce well-being can lead to significant economic and societal upsides, as discussed in this section.

- **Contribute to sustainability and ESG goals:** Experts recognize workplaces as potential platforms on which to have a societal impact, in alignment with Sustainable Development Goals 3 and 8 around well-being, economic growth and employment.⁵¹ Moreover, experts signal a keen interest in exploring the relevance and impact of employee health investments from an environmental, social and governance (ESG) reporting perspective, provided impact measurements – and potentially targets – are identified and agreed. Finally, positive competition among peer companies to develop and offer health-enabling products and services can further contribute to a sustainable social impact.
- **Promote equity and inclusion in the workplace:** Workers may exhibit varying health behaviours and have different levels of access to healthcare services. For instance, physically demanding blue-collar jobs have been linked to increased risks of obesity and cardiometabolic diseases. Factors such as limited access to healthcare, irregular work hours and exhaustion can make it challenging for these workers to prioritize their health. However, employers have a unique opportunity to engage with and support these hard-to-reach segments of the population in terms of adopting healthy lifestyles, proper nutrition and long-term health management.^{52,53,54} Similarly, individuals living with obesity frequently experience workplace

stigma and discrimination, which can adversely affect their mental well-being, engagement and productivity. Research indicates that workplace physical activity interventions have the potential to mitigate obesity inequalities and foster inclusivity, especially when focused on the most vulnerable workers.⁵⁵

- **Contain health system costs:** The WHO Acceleration Plan to Stop Obesity shows that if obesity and overweight prevalence is reduced by only 5% between 2020 and 2060, the potential total savings per year on average amount to \$429 billion – almost half of the current annual global costs of obesity (\$990 billion).⁵⁶ By investing in employee weight management and cardiometabolic health programmes, employers can help prevent and manage the development of chronic diseases, such as obesity, diabetes, heart disease and hypertension, which often require expensive medical treatments, hospitalizations and long-term management.⁵⁷
- **Build economic resilience during crises:** A healthy workforce makes organizations more resilient in the face of potential crises, such as pandemics or climate disruptions. During the COVID-19 crisis, the most vulnerable segments of the working population were more exposed to health threats and the risk of severe disease. For instance, people living with obesity were more likely to be hospitalized if they tested positive for COVID-19. This affected work activities and highlighted the limitations of institutions' capacity and readiness to provide a safe and healthy working environment for all workers.⁵⁸ Overall, a focus on employee health has the potential to improve population health,⁵⁹ and therefore the resilience of businesses, allowing them to contribute to stability, economic growth and the provision of essential goods and services, at all times – and during crises.



FIGURE 3 | Drivers for increased investment in workforce health and well-being



People drivers

Experts, employers and service providers believe that improving productivity and enhancing employee engagement and satisfaction are key drivers for investments in physical health initiatives

- Reduce **indirect costs** by improving productivity, reducing absenteeism and presenteeism
- Improve **employee engagement**, their satisfaction and team culture
- Increase **talent retention** and **talent attraction**
- Improve employees' **overall health and quality of life**

Driver

Evidence availability (estimate)

Rationale

Indirect costs: productivity, absenteeism and presenteeism



There is abundant and high-quality evidence supporting the observation that healthy interventions at work positively affect employee productivity metrics

Employee engagement



Publications support the argument that well-being interventions in the workplace improve engagement and increase employee satisfaction

Talent retention/attraction



While talent management is discussed in the grey literature and among experts, supportive scientific data is scarce, with a low research focus

Overall health and quality of life



Publications show that workplace wellness programmes can have a measurable effect on employees' overall health and quality of life



Business drivers

The main business drivers mentioned by employers as reasons to invest in people's health are health-cost reduction and differentiation/reputation considerations as well as the fit with company culture

- Reduce **direct medical spend**/costs in countries with employer-based healthcare
- Improve **employer differentiation, competitiveness and positioning** (including from a customer perspective)
- Strengthen **employer brand and reputation**
- Believe that this is **the right thing to do** and aligns with **company culture**

Direct medical spend



There is a consistent link between unhealthy weight and higher medical costs, and evidence is available for employer-insured countries

Employer differentiation



There is a lack of literature on employer differentiation, even in white papers, where differentiation is usually discussed in terms of talent attraction/retention

Employer brand and reputation



Committing to employee health is increasingly contributing to brand distinction and market reputation, though this aspect is starting to be measured scientifically

Company culture



Few studies discuss how health in workplace organizational policies and culture can affect health behaviours



Societal drivers

Employers are less focused on societal goals. Still, business resilience and equity, as well as a contribution to health costs and ESG goals, are occasionally mentioned as reasons to invest

- Make a **societal impact** (including focusing on the "S" in **ESG reporting**)
- Build **resilience** during crises
- Ensure **equity and meet diversity and inclusion (D&I) goals**
- Reduce **healthcare system costs**

Societal impact/ESG commitments



Several white papers cover the impact of unhealthy weight on society; however, few studies bring helpful scientific data to support the claim

Resilience



Multiple publications assess how health conditions, including unhealthy weight and CMDs, can affect business continuity – but the topic/data is rarely used among experts

Equity and D&I



Papers on equity in workplaces may discuss unhealthy weight from an inclusion perspective. Grey literature often mentions how workplace health can improve equity and D&I

Healthcare system costs



Research shows cost savings from screening for unhealthy weight, often within broader health programmes, and this is often highlighted in publications – more national data is needed



Importance assigned to topic by interviewees



Availability of high-quality (peer-reviewed) evidence (from low to high)



Availability of anecdotal evidence and information present in grey literature (from low to high)

Guide to action

Employers can strive to go beyond traditional occupational health and safety programmes to incorporate transformative, holistic health and well-being initiatives.

This section, which draws on insights from employers, subject-matter experts and service providers in the field of weight and cardiometabolic health, combines an overview of current and emerging workplace physical health approaches with a focus on weight and cardiometabolic health, the associated implementation challenges and a step-by-step approach with guiding principles to help employers start investing in healthy employee weight and cardiometabolic health.



2.1 Emerging approaches to enable healthy weight and cardiometabolic health in the workplace

For decades, employers around the world have been using a range of strategies to improve employee health and well-being. Currently, employer efforts to enable healthy weight and cardiometabolic health in the workplace can be segmented as follows (Figure 4):

- Occupational health and safety measures – prioritizing safety and overall welfare in line with regulatory requirements, implemented in every organization based on local regulation (A).
- Well-being programmes – broadly addressing mental and physical health by enhancing education and encouraging lifestyle changes, implemented widely by large employers and occasionally by smaller, mission-oriented enterprises (B).
- Physical health and outcome programmes – advanced health programmes typically integrating

the measurement and management of health risks and outcomes, with a focus on metabolic and behavioural factors, into regular check-ups, screenings and ways of working (C), identified as an emerging trend in global companies, or even a consolidated trend in some industries and regions.

- Targeted interventions addressing weight and metabolic health management, potentially embedding virtual care and advanced analytical elements (D) – an approach emerging specifically in countries and organizations where such interventions are culturally acceptable and/or highly demanded by employees.

It is important to note that all of the physical health programmes – with the exception of occupational health measures – are intended as a service or benefit offered to employees, who are free to decide whether or not to take part in such programmes.

FIGURE 4 | Potential strategies to address physical health in the workplace

A Occupational health

Mandatory

Adoption: All employers, regardless of size or location

Scope: Focuses on safety, prevention of work accidents and environmental health to ensure a safe workplace in line with regulatory requirements

Goal: Promote and maintain the highest degree of physical, mental and social well-being of workers in all occupations

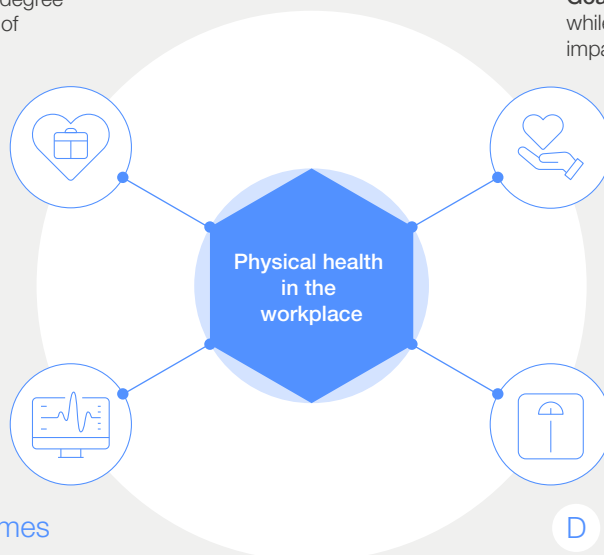
B General well-being

Established

Adoption: Most employers, especially large ones, globally

Scope: Generally targeting mental, social and physical health, promoting a healthy lifestyle through activities such as physical fitness, healthy nutrition and health-promotion activities

Goal: Enhance talent attraction and retention while improving productivity metrics, even if impact not systematically measured



C Physical health and outcomes

Emerging as a trend in global companies

Adoption: Typically adopted among multinational employers (trendsetters)

Scope: Similar to well-being programmes, but with added emphasis on health check-ups, screenings and integration of health goals into the business model

Goal: Improve talent attraction and retention, productivity metrics, health trends, spending, reputation and societal goals, with a focus on measurable outcomes

D Weight and metabolic health

Emerging in some organizations or countries

Adoption: Some large employers, predominantly in employer-insured healthcare systems

Scope: Builds on the *Physical health and outcomes* approach, adding specific coverage for weight management interventions to address metabolic health issues

Goal: Manage direct and indirect health spending while focusing on talent attraction and retention, with measurable targets

Source: Based on N=26 interviews conducted in January–May 2024. PwC analysis





Overview of interventions supporting weight and cardiometabolic health

To achieve clarity on the type of health interventions that may be implemented in the workplace, a non-exhaustive selection is presented below and in Table 1, where they are segmented by the four approaches previously identified. In particular, the focus is on interventions that can have an impact on weight and cardiometabolic health, based on the existing body of scientific literature. To explain, the scientific literature indicates that the major modifiable risk factors for obesity and metabolic diseases are lack of physical activity, unhealthy eating patterns, uncontrolled/abnormal blood pressure and uncontrolled/abnormal blood levels of triglycerides, HDL-cholesterol, fasting plasma glucose and stress. Hence, interventions targeting these risk factors have been considered as having the potential to “influence” weight and metabolic health.

It should be noted that the best outcomes are observed when different interventions are combined into integrated programmes, addressing multiple health aspects holistically.⁶⁰

- **Interventions with the potential to influence weight and cardiometabolic risk factors:** These are strategies, programmes or actions designed to specifically target and influence an individual’s body weight and their cardiovascular and metabolic well-being by acting on the underlying risk-factor. Among the most widely implemented interventions, employers may offer awareness and educational programmes and workshops that provide information on weight management, cardiometabolic health, nutrition and physical activity. Many employers complement the educational offerings with holistic well-being programmes that encompass, for example, providing healthy food options, organizing physical activity challenges, offering access to gym facilities, encouraging active breaks and even conducting walking meetings or running collective active breaks during remote meetings. A key emerging focus among global employers is to provide the ability to monitor and manage health risks and outcomes by offering

regular health checks and risk-factor screenings. These may typically include measuring blood pressure, glycaemia, cholesterol levels, smoking status, weight and, more rarely, broader test panels, such as vitamin assays and cancer markers. Screenings can also be complemented with health questionnaires. Most organizations provide access to medical counselling in order to review the results of such tests. In some companies, continuous glucose monitoring (CGM) devices are provided to monitor blood-sugar levels.⁶¹ Furthermore, certain employers offer movement apps, weight-management apps and nutrition apps to support and reward employees in making healthy choices (see also “Emerging models in employee weight and cardiometabolic health management”).

- Additionally, internal health culture audits, personalized health coaching and e-health platforms, as well as programmes to reduce stress and overworking are considered proactive interventions able to affect weight and cardiometabolic health. Based on the specific country health system, employers may also offer coverage for pharmacological treatments and surgical procedures (such as bariatric surgery) or combined interventions (including pharmacological and lifestyle interventions) related to weight management (Table 1, blue interventions).
- **Other interventions:** Additional physical health interventions may be offered as part of total health well-being approaches and in the context of occupational health activities. These may comprise warm-up exercises and musculoskeletal training, ergonomic desk set-ups, education on sleep hygiene and pain-management programmes. Although these initiatives may not have a direct impact on weight and cardiometabolic health, they significantly contribute to overall physical well-being and employee physical resilience (Table 1, green interventions).

TABLE 1 | Overview of selected health interventions in the workplace

		Typically implemented in employer programmes focused on...			
Examples of interventions with an impact on physical health (not exhaustive)		 Occupational health and safety	 Well-being	 Physical health and outcomes	 Weight and metabolic health
Potential to influence weight and cardiometabolic risk factors	Internal audits to assess workplace culture and health risk exposure	(for work-related risks)	(not typical)	✓	(not typical)
	Awareness and educational programmes and workshops	(for work-related risks)	✓	✓	✓
	Healthy food in canteen and vending machines		✓	✓	✓
	Sports/physical activity challenges; gym facilities on site; gym/yoga classes; discounts on bicycles; use of activity-tracking devices		✓	✓	✓
	Active breaks, walking meetings		✓	✓	✓
	Health check/risk-factor screenings	(for work-related risks or mandatory programs)		BP, glycaemia, cholesterol, smoking, weight, sleep	BP, glycaemia, cholesterol, smoking, weight, sleep and use of obesity scoring scales
	Health coaching for employees (online, walk-in clinics)			✓	✓
	Weight management apps, movement apps, nutrition apps (e.g. diet tracking, food vouchers)			(focus on nutrition)	✓
	Coverage of pharmacological treatments and surgical procedures			(if specific modules on weight)	✓
	Sleep hygiene education and activities		✓	✓	
	Predictive analytics for workplace health interventions; personalized care management apps and platforms		(not typical)	✓	✓
	Stress and overworking management; flexible working hours, ability to leave work earlier to encourage exercising		✓	✓	✓
Other interventions	Smoking cessation programmes		✓	✓	
	Warming up and musculoskeletal trainings	(not mandatory)	✓		
	Pain management trainings	(not mandatory)	✓		
	Ergonomic desks and architectural features	(not mandatory)	✓		
	AI-driven exoskeletons and other tools to measure a worker's position and correct posture	(not mandatory)	✓		

Source: Based on N=26 interviews conducted in January–May 2024. PwC analysis

2.2 Main challenges in deploying weight and cardiometabolic health initiatives

Employers, experts and service providers have identified a range of challenges in implementing initiatives targeting weight and cardiometabolic health in the workplace. These barriers span various aspects, encompassing broader physical health approaches as well as those specific to weight and cardiometabolic health. Prominent among these challenges are issues related to workplace culture, organizational barriers, global implementation, awareness and employee engagement. There is also a significant gap in effective impact measures for such

physical health initiatives, which further complicates efforts to achieve meaningful progress (Figure 5).

Recognizing that certain challenges have a systemic nature and cannot be easily overcome by individual organizations alone, the forthcoming pages aim to provide practical considerations and guidance for employers committed to investing in employee health. These resources will enable employers to proactively tackle and navigate some of the anticipated challenges that may arise along the way.

FIGURE 5 Challenges in implementing initiatives to address weight and cardiometabolic health in the workplace



People challenges

Addressing varied needs and levels of health literacy, especially across generations

Reaching and engaging some worker populations (for example, blue-collar workers), due to work style, financial constraints and varied health attitudes

Designing programmes that are helpful and tailored to employee needs without being intrusive

Dealing with/preventing employee perception of health initiatives as merely cost-saving exercises



Business challenges

Aligning business practices and culture with a healthy lifestyle

Measuring return on investment (ROI) of employee health initiatives, including identification and measurement of meaningful outcomes

Gathering evidence and data related to the impact of health initiatives on employers' business, reputation and brand

Dealing with differing regulations, culture and employee needs when designing global programmes

Collecting data and generating insights, while complying with data privacy regulations



Societal challenges

Building collaborations among private employers, public institutions, academia and non-profits

Achieving high employee participation and impact due to the broader socioeconomic context

Going beyond the short-term spending perspective to a long-term societal one

Making innovative treatments accessible due to coverage/reimbursement conditions (in employer-insured countries)

Source: Based on N=26 interviews conducted in January–May 2024.
PwC analysis

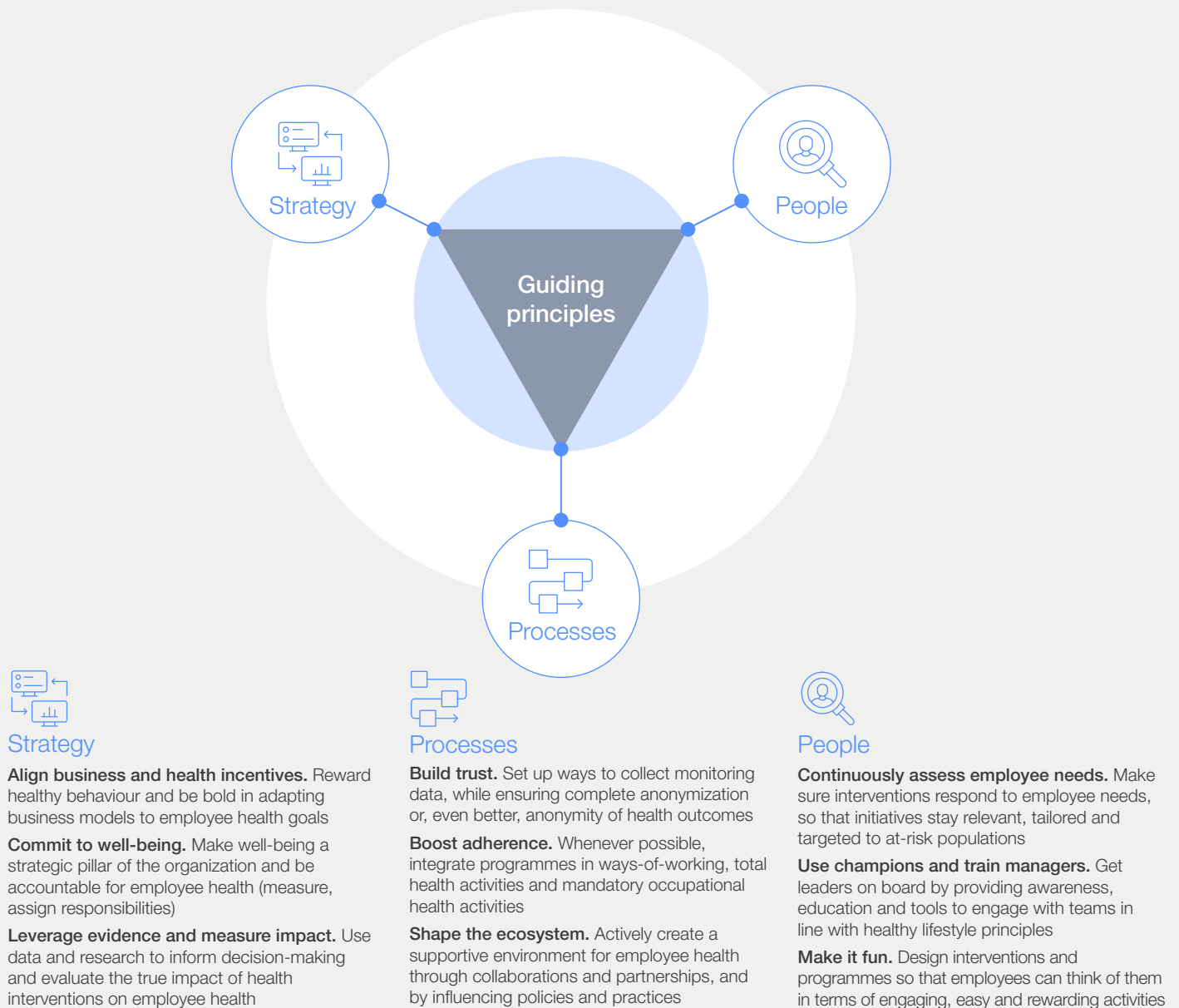


2.3 Guiding principles

The key guiding principles (Figure 6) are developed on the basis of leading experts' insights and experiences, as well as successful approaches implemented by employers and service providers who are actively addressing weight and

cardiometabolic health in the workplace. These principles provide helpful points of reference for employers looking to invest in employee well-being, particularly when aiming to achieve measurable improvements in health outcomes.

FIGURE 6 Key guiding principles to successfully invest in employee weight and cardiometabolic health



Source: Based on N=26 interviews conducted in January–May 2024. PwC analysis



The key to the success of health interventions in the workplace is a balance of workplace design and management support to effectively ensure that employees can be at their best. Only then will it be possible to effectively implement individual health-promoting behavioural measures.

Andreas Tautz, Chief Medical Officer, DHL

Strategically aligning businesses with a culture of health and well-being

In an increasingly fast-paced working culture, achieving business goals and meeting deadlines are often achieved at the expense of healthy behaviour. It is crucial to recognize the impact of these unhealthy work behaviours and to strive for a balance between business goals and a healthy work culture. Organizations that would like to invest in better employee health must enact bold initiatives capable of triggering not only better health but better business indicators, too. A vital element in developing health investments is to make well-being a key organizational pillar, as some trend-setting organizations are in the process of doing. This means that mindful organizations integrate well-being into every aspect of their people experience, rather than merely implementing a set of isolated initiatives. It also means that organizations successfully achieving a cultural shift typically consider elements related to employee roles and responsibilities, the employee relations and support system, as well as the physical workplace design in order to create a safe and healthy work environment

– in addition to investing in targeted health programmes. Most often, this is achieved by means of top-down decisions from the executive layer.

Engaged companies view employee health not just as a benefit but as a central component of their overall business strategy. This involves incorporating well-being goals, such as health outcomes and employee satisfaction, into the company's core values and metrics – therefore making the enablement of healthy behaviours a company goal. By staying up-to-date with the latest research and best practices in workplace health, as well as by collaborating with health experts and organizations, companies ensure the implementation of evidence-based strategies that amplify the impact of health initiatives beyond the workplace and strive for impact measurement and insight generation – for their own benefit and to advance knowledge about health promotion and management in the workplace.

Putting people first by investing in tailored programmes and continuously improving them

Companies successfully supporting employee health do so by ensuring that initiatives stay relevant and impactful to their workforces. They can do this by conducting regular employee surveys, focus groups or suggestion boxes and forums to allow anonymous feedback, and also by regularly measuring participation rates, satisfaction and health outcomes. From this, feedback can be used to continuously refine programmes. In addition, data analysis can be segmented by demographics – within the boundaries of local regulatory frameworks – for targeted action. Using champions and training managers, and involving leadership with a visible commitment, can drastically influence

company culture and employee engagement. A few suggestions include: creating champion networks across departments; empowering passionate employees to promote these initiatives and motivate peers; training managers with the skills to support team well-being; and ensuring top executives participate in health initiatives. Experts emphasize that physical health interventions should be engaging, easy and rewarding. This means offering a diverse set of interventions that foster community and competition, that are easily accessible and convenient, and that offer rewards by providing recognition and prizes for participation.

Ensuring that a company's processes allow for seamless incorporation of health initiatives

When companies commit to employee health initiatives, they undergo a transformative shift in their processes to integrate and prioritize these initiatives, ensuring their successful implementation and adherence. First, trust is built by implementing systems to collect health data in an anonymous or anonymized way to protect employee privacy (in accordance with local regulations), as well as by communicating clearly how the data will be used, emphasizing its role in monitoring and evaluating health programmes without compromising individual privacy. Second, to boost adherence,

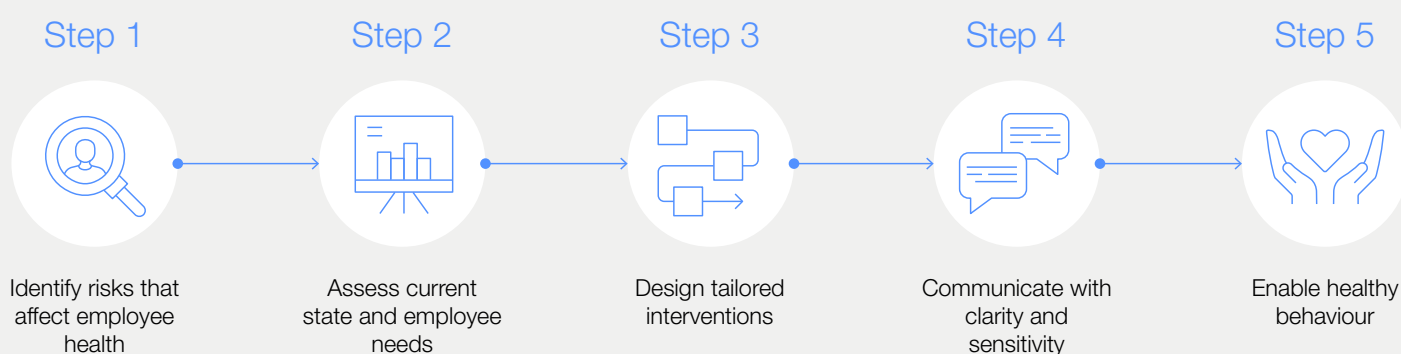
health programmes are incorporated into routine work activities, making them a natural part of the working day. Aligning well-being programmes with existing occupational health activities is important to ensure seamless and mandatory participation. In an ideal scenario, companies' health initiatives align with and benefit from larger whole-of-society efforts in fighting obesity and cardiometabolic disorders, which means that different stakeholders come together and work collaboratively towards shared health goals.

2.4 Step-by-step approach to investing in employee health

In line with the general guiding principles described above, the actions described in this section (Figure 7) are intended as a source of inspiration, offering guidance to employers interested in investing in the physical health of their workforce, with a specific focus on weight and cardiometabolic health – as described in Figure 4 (C. Physical health and

health outcomes). It is crucial to note that these steps offer general directions and may require further development and adaptation for different employers, sectors, workers and geographies. Additional research is necessary to validate their effectiveness on employee health and ROI for employers.

FIGURE 7 **Step-by-step guide for employers starting to invest in employee weight management and cardiometabolic health**



Source: Insights from Interviews, scientific literature and white papers

Step 1

Identify risks that affect employee health

Employers eager to address weight and cardiometabolic health issues effectively among employees, or who are considering doing so, often adopt a risk-based approach. This involves evaluating how the company's work culture and practices may affect the health of the workforce. Such "health-risk audits" are often led by Human Resources or Medical functions (internally, or in collaboration with third parties) and may encompass, in addition to environmental and occupational risks, aspects related to ways of working (e.g. working time, speed of delivery, use of remote vs. in-person meetings), nutrition options in the workplace, availability of transport options and infrastructure, internal policies and related

compliance, employee benefits and healthcare coverage, company values, management attitudes and behaviour and a review of the existing offer of health and well-being programmes. It may be helpful to map explicitly how different components of the items in scope for such review may affect weight and cardiometabolic health. Whenever possible, productivity, health spend indicators and other potentially available health risk data can be assessed in parallel to get a sense of the consequences of health risks at work. Overall, the audit is able to reveal critical areas of an organization that may be the object of further assessments and potential investments to mitigate health risks.

Step 2

Assess current state and employee needs

When committing to employee health, it is vital to assess the needs and challenges of the workforce regarding weight and cardiometabolic health management at work. This can be done by reflecting on the extent to which health programmes already in place respond to employee health needs and preferences, and by evaluating the level of employee engagement, whether those are one-time events or sustained. The assessment may span a broad range of options, from educational activities to active-lifestyle trainings, social events, digital health apps, access to healthcare professionals and therapeutic interventions (see Table 1 for a non-exhaustive list of examples). Second, it is crucial to explore the extent to which existing business practices and ways of working are perceived by employees as affecting their health and work productivity, engagement and morale. These practices may typically involve work habits and internal policies to enable physical activity, better nutrition and inclusivity. Management style (and expectations) may also significantly contribute to employees' ability to take care of their own health. Third, organizations can assess areas of unmet need, as well as potential new ideas and propositions that employees may be interested in exploring. For example, employees may be

interested express interest in accessing e-health management apps, or getting support to enhance healthy habits in their home environment.

Significantly, according to leading organizations involved in advanced employee health programmes, a potent approach for building a persuasive case internally involves undertaking a tailored and organization-specific risk assessment (Step 1) coupled with a thorough review of employee needs (Step 2). Such assessments, combined with key insights derived from scientific literature, serve as a robust foundation for substantiating the internal case for investment – guiding executive decision-making, supporting the mobilization of resources and garnering support for employee health programmes that specifically target improved outcomes related to weight and metabolic health. Overall, this data indicates the impact that work conditions have not only on people's well-being but also on their work output, with sharp, organization-specific insights. Some multinational employers have emphasized that conducting a human-centred assessment with the active participation of employees has led to a quantifiable improvement in productivity and a decrease in sickness rates and complaints.



Programmes are successful when they are employee-led, employee-driven.

Maria Dee, Executive Director, Workforce Well-Being,
Kaiser Permanente



Step 3

Design tailored interventions

Through the collection and analysis of internal data in steps 1 and 2, companies can develop a comprehensive understanding of their employees' unique circumstances, which supports the design and prioritization of relevant, impactful and tailored interventions. Although there is no one-size-fits-all approach to interventions for all employers, it is generally the case that interventions addressed at weight and cardiometabolic health management (Figure 4, "C. Physical health and outcomes", and Table 1) are inserted in the context of holistic health programmes. For example, health check-ups and digital apps to monitor health behaviours are most

effective when educational programmes and physical activity initiatives are also in place – so that healthy behaviours can be put into practice. Organizations may choose to design such programmes internally or opt to collaborate with external organizations and service providers specializing in employee health and well-being. In line with this, emerging models and strategies that target weight and metabolic health can incorporate innovative technology and implementation models characterized by the use of digital channels, predictive models and behavioural science (Box 3).

Step 4

Communicate with clarity and sensitivity

Organizations, especially larger ones, often provide health programmes as part of their employee benefits. However, these may be unintentionally overlooked or given less importance due to pressing business commitments. Instead, employers committed to employee health make it a central aspect of their organizational strategy and communication. This entails actively integrating health offerings into the company culture, effectively communicating their importance. It is also vital to continually engage leaders and managers by raising awareness, providing education and equipping them with tools to enable healthy lifestyles within their teams. Some companies go a step further by establishing these employee initiatives as flagship programmes, showcasing their investments and outcomes externally to the general public.

In relation to the above, it should not be forgotten that individuals living with obesity and other health conditions often still encounter bias, discrimination and stigma within the workplace (see “Introduction”). For some employees, certain initiatives may be perceived as stigmatizing or overly personal. Therefore, committed employers carefully craft the language used when communicating with employees about this topic, ensuring that it is respectful, inclusive and supportive. Especially when discussing conditions that have a behavioural component, communications may emphasize the overall goal of supporting health and well-being for all as well as promoting a healthy workplace, and refrain from alluding to individual choices and willpower.⁶²

Step 5

Enable and evaluate healthy behaviour

In the final step, the employee health strategy needs to come to life, and organizations are then accountable for achieving the expected outcomes. This typically includes monitoring and evaluating the effectiveness of the strategy and related interventions by regularly analysing productivity metrics, employee feedback and health-outcome monitoring (in compliance with applicable regulations). Even more importantly, this entails making necessary adjustments to the work environment, policies and practices to prioritize and improve employee health, in alignment with the results emerging from monitoring and evaluation

activities. Leaders have a key role in inspiring a healthier workforce by role modelling healthy behaviours, setting expectations, and creating a psychologically safe working environment.⁶³

By adapting their ways of working to align with the employee health strategy, organizations demonstrate their commitment and create the conditions for success – that is, an environment that supports and encourages proactive health management and access to care. This integration helps to ensure the effectiveness and sustainability of employee health initiatives.



Examining the factors for success

Understanding local dynamics and stakeholders is key to bolstering the implementation of global programmes targeting weight health.

3.1 Exploring the conditions for healthy weight management in the workplace

While certain employers are enthusiastically establishing weight-management programmes for their employees, others are reluctant to address this matter within the workplace. This hesitation is frequently influenced by country-specific factors and a range of other variables (Box 1).

BOX 1 Factors driving the ability to focus on healthy weight promotion in the workplace

At least three systemic drivers influence employer interest and investments in promoting healthy weight among members of their workforce.

Healthcare system financing models: In countries where an employer-provided health insurance model exists, varying level of coverage for health interventions may be provided to workers based on the specific employer's plan. In some cases, as in the United States and South Africa, such variability applies also to basic healthcare and prescription medications. This encourages employers to choose the health plans that best meet employee needs. In the US, for example, a strong interest in comprehensive coverage that includes innovative weight management drugs and interventions is emerging among employees, to the extent that employers offering such coverage may be increasingly able to retain and attract talent.⁶⁴ This trend explains the reason why several employers in the US are progressively providing well-being programmes both to mitigate direct health spending and to enhance employee health outcomes in alignment with employee preferences.

Mandatory legal requirements: Some countries have legal obligations that mandate employers to address cardiometabolic health issues and weight management within their workforce, prescribing individual and company goals. Japan serves as an example: the Metabo Law was established in 2008 to address the rising prevalence of metabolic

syndrome, and aims to increase awareness of and promote a healthy lifestyle through nutrition and physical activity. Among other components, this law requires companies to conduct metabolic syndrome screenings for employees and offer counselling and interventions to individuals at risk. Studies have revealed that the law has raised awareness and encouraged healthier lifestyles among people living in Japan. It has also incentivized companies to implement wellness programmes and support healthier food options and physical activities for employees.^{65,66}

Cultural sensitivity: In some countries, especially across Europe, employers often avoid direct discussions about weight and obesity to prevent stigma and address privacy concerns, focusing instead on comprehensive health risk management, including both physical and mental well-being. In other regions, such concern is not common, and it is both legally and culturally acceptable to discuss and measure employees' health behaviours.^{67,68} For example, in China, companies might establish holistic well-being programmes with lifestyle and fitness initiatives, with a focus on weight management, as well as routine health check-ups and personalized health guidance.⁶⁹

In addition to systemic factors, the specific employer sector as well as the target population typically shape investment patterns when it comes to employee weight and metabolic health.

Industry sector: Enterprises operating within the healthcare, pharmaceutical and medtech sectors, as well as professional and financial services, often provide more comprehensive physical health initiatives owing to heightened employee interest and receptiveness, but also high familiarity of the workforce with data regulation and ethical obligations. Conversely, industries such as transportation or construction may prioritize other aspects of employee welfare, such as safety, prevention of work accidents and environmental health due to the nature of their operations. Also, from the employee side, demand for healthy weight management options is generally less pronounced (see also below).

Workforce composition: Typically, white-collar employees display greater willingness to allocate

time and resources to physical well-being, even if it involves personal time or financial investment. Employers in finance or technology often prioritize physical health initiatives to enhance the long-term productivity and performance of their skilled workforce. In contrast, workers in blue-collar roles that involve physical exertion often encounter challenges such as limited access to healthcare services, irregular work hours, lower compensation and fatigue, which can impede their ability to prioritize their health.⁷⁰ Also, employers primarily focus on ensuring safety for manual labourers, rather than providing discretionary benefits. These inherent dynamics further accentuate the challenge of reaching workers at higher risk of obesity and CMDs with targeted health initiatives.

3.2 Implementing weight and cardiometabolic health initiatives on a global scale

Implementing weight and cardiometabolic health initiatives on a global scale presents unique challenges in both high-income countries (HICs) and low- and middle-income countries (LMICs) (Box 2).

BOX 2

Global implementation of weight and cardiometabolic health initiatives

The rise of obesity is a worldwide concern that affects countries irrespective of their income levels, and further contributes to inequalities among different socioeconomic groups and global regions.^{71,72,73} However, employers face distinct challenges when implementing initiatives focused on weight and cardiometabolic health in various geographic locations, given that knowledge and awareness, as well as beliefs and needs concerning weight health, differ between cultures and among individuals. In addition, the specific policy environment and health priorities may contribute differently to the uptake of health interventions: for example, in HICs, diverse interests have the potential to hinder the progress and impact of healthy nutrition initiatives,⁷⁴ while in LMICs there might be a perceived low sense of urgency to prevent and treat obesity compared to other pressing healthcare matters,⁷⁵ as well as a shortage of resources⁷⁶ and specific skills and expertise to address these issues.

Taking this into consideration, the strategies underlying the implementation of global employee health initiatives – particularly when targeting weight management and cardiometabolic health – may vary significantly depending on the employer organization and final goals.

Some organizations, for example, favour the establishment of standardized global principles

for their health programmes, while allowing for minor adjustments to cater to the specific requirements of each territory in terms of culture, language, local regulations and employee needs. This approach may be preferred when the focus on employee health is at the core of company values and human capital strategy, and the company intends to leverage the investments from a talent management and differentiation perspective, generate robust insights shaping future investments and have a strong societal impact globally.

Other organizations, on the contrary, may opt for strongly localized approaches, which will then result in highly tailored programmes, adapted to local needs. Such an approach will often result in varied levels of investment across regions and countries, with some countries being able to implement a much broader range of services than others. However, this approach allows for greater flexibility and smaller initial investments.

Nevertheless, as in many other fields, the use of accessible technologies such as smartphone apps can help bridge the healthcare gaps between LMICs and HICs across global organizations by giving access to health information, enabling remote consultations, providing access to education and supporting early detection and diagnosis.

Making an impact

Innovative technologies and partnerships drive impactful and personalized workplace initiatives.

4.1 Emerging models in employee weight and cardiometabolic health management

Some organizations and service providers already stand out by using innovative technologies and partnerships to creatively design and shape interventions intended to support better health and outcomes (Box 3), especially when it comes to weight and metabolic health. Different data analytics technologies and approaches to health promotion and care provision are usually combined to provide tailored and integrated offerings to employees. Some emerging models are listed here.

BOX 3 Emerging models, approaches and technologies used by employers to address weight and cardiometabolic health in the workplace



Model 1: Predictive analytics for personalized interventions

Predictive analytics uses extensive datasets and sophisticated algorithms to identify health risks and tailor interventions for employees in the workplace. Two practical options include: 1. the use of predictive analytics to streamline primary care and chronic condition monitoring, integrating AI algorithms and large health datasets to provide personalized health insights to aid achievement of specific health goals, such as maintaining a healthy weight; 2. the integration of various health-management components (e.g. lifestyle and nutritional counselling, pharmacological therapies and management of personal health spending) into a comprehensive platform, allowing for the prioritization and selection of cost-effective and personalized health interventions and rewards.⁷⁷



Model 2: Behavioural science for goal-oriented health strategies

Behavioural science, particularly cognitive behavioural therapy (CBT), plays a pivotal role in workplace health interventions by addressing the psychological factors that influence weight and metabolic health through structured and goal-oriented strategies. Examples of CBT use in the workplace include telehealth platforms, which combine personalized coaching, educational content and engagement tools. This approach can also help identify and target high-risk individuals for early interventions. Overall, behavioural science-based tools allow for personalized health interventions that take into consideration a person's behaviours, preferences and attitudes.



Model 3: Gamification and social support for health promotion and enhanced motivation

Enabling a healthy lifestyle is crucial for workplace health interventions focusing on nutrition, physical activity and other health habits. To support the achievement of health goals, some mobile services integrate rewards and social support relating to healthy behaviours. For example, when employees engage in physical activity and healthy eating practices, a reward of variable size is offered. The user also benefits from a variety of social support features (e.g. e-coaching, health assessments, nutritional advice). These systems enable employees to adopt healthy behaviours by "making healthy choices the easy choices".



Model 4:

Integrated software to enable healthier ways of working

Software and integrated platforms exist that seek to support the adoption of healthier behaviours either at company, team or individual level. Today, these models are mostly implemented via digital channels, and even embedded into work software and shared platforms, so that health activities become an organic part of daily work. Such platforms have an educational component (nutrition, physical activity) but also encourage behavioural changes by, for example, reminding employees to take active breaks, requiring them to sign off early for team or individual sports activities, giving healthy eating options and encouraging walking meetings and active breaks. Periodic check-ins, motivational content and games may also be integrated.



Model 5:

Hybrid care delivery for better access to healthcare and counselling

Hybrid care delivery, combining company on-site and virtual health services, is crucial in workplace health interventions, particularly for weight and CMD management, with a focus on accessibility and flexibility for employees, as well as cost management for employers in charge of employee health insurance. Some companies are developing advanced models of hybrid care, especially when the focus on holistic health promotion and management is part of the company culture and vision. Overall, these advanced models can support employees' long-term weight and cardiometabolic health, lowering healthcare costs and fostering a comprehensive health-oriented workplace culture, while representing a key driver for talent retention.



Model 6:

Employee-reported outcome collection for impactful health intervention design

Multifactorial health interventions in the workplace are comprehensive programmes that integrate nutritional guidance, physical activity, health risk check-ups and mental health support. They seek to create a supportive environment that promotes measurable improvements in health and well-being. Some companies are implementing this holistic approach to better physical health and weight management and integrating the findings with data on lifestyle and family health history collected over time. In order to do so, all data collected is self-reported and disconnected from the personal employee profile to comply with data regulation and to enhance trust.

4.2 The role of employers in the broader ecosystem

Employers have an opportunity to rethink and reshape the world's work culture to enable better population health and greater equity by aligning business practices with well-being.

Employers may address employee health well beyond the implementation of workplace initiatives. They have an opportunity to rethink and reshape the world's work culture to enable better population health and greater equity by aligning business practices with well-being. In addition to advocating for and implementing inclusive policies that support healthy lifestyles within their organizations, employer organizations can become global thought leaders and proactively address broader determinants of health, including by contributing to enhanced job security, fair wages and optimal work-life balance. Importantly, employer-wide engagement on employee health is critical to achieving the scale of impact required to improve health at the population level.

Further to this, the focus on fighting the surge in obesity and CMDs requires a collective societal effort, involving everyone from individuals to employers and beyond (Table 2). By engaging with governmental and public organizations, employers can support the development and endorsement of policies aimed at promoting healthier workforces. Also, by adopting a collaborative multistakeholder approach, aligning with the food and leisure industry, a comprehensive strategy could be formed to address these health concerns and yield significant improvements in public health outcomes, through the creation of an environment in which healthy choices are default options.



Corporations can be a strong and powerful voice for changing the drivers of chronic disease, contributing to an environment supporting healthy rather than toxic defaults.

Kelly Brownell, Professor and Dean Emeritus, School of Public Policy, Duke University

Such an approach involving private and public employers, non-governmental organizations, governmental bodies and academic institutions is beneficial for addressing important gaps that hinder the active involvement of employers in combatting excess weight and CMDs in the workplace. These gaps include a lack of measurable data on the effects of employer interventions in their workforce, business and the wider society. Collaborations between employers and research institutions to conduct research and measure the impact of employers' investments in addressing these health issues is a solid starting point.

In order to encourage employers to prioritize employee health and well-being, governments may design supportive policies⁷⁸ and consider adopting specific incentive strategies, such as:

- Tax incentives and financial subsidies for companies implementing workplace well-being programmes, potentially also covering health insurance premiums
- Grants and funding opportunities, particularly for small and medium-sized businesses
- Public recognition and awards to companies demonstrating exemplary efforts in promoting employee health
- Education and training offered to employers on the importance of workplace health programmes and how to implement such programmes
- Regulatory requirements and standards to ensure that companies track key indicators and meet health benchmarks, including as part of sustainability and social impact commitments

TABLE 2 A whole-of-society approach towards better weight and metabolic health

Opportunities	Employers	Government	Health and social care	Academia	Investors
Nutrition and healthy and sustainable food	Evaluate food supplied to employees and visitors	Policy and investments to promote foods that are both healthy and good for the environment	Adopt policies to ensure the procurement, provision and promotion of sustainable and healthy food	Make healthy and sustainable nutrition a research priority	
	Limit unhealthy food in canteen, vending machines, at events			Disseminate evidence for change in society	
Active lifestyle and infrastructure	Ensure/support public or active transport options to the workplace	Support active living policies and physical health literacy in early school years	Support active living policies and physical literacy through communities and sports organizations	Disseminate evidence for change in society	Consider employer commitments to healthy and sustainable nutrition, support for public/active transport and D&I among lending criteria
	Design spaces that promote incidental physical activity and reduced sitting time Design a physically inclusive workplace	Design and invest in built environments that include safe green spaces, connected active transport and public transport networks			
Care for all	Consider health checks and evidence-based referral pathways as part of well-being investments	Strengthen education about weight and cardiometabolic health	Invest in training focused on weight and metabolic health for healthcare professionals	Include obesity and CMD physiology and holistic management in health and social sector education and continuing professional development curriculum	Develop and define potential nutrition and health metrics for inclusion into ESG investment frameworks Screen existing investment portfolio for material risk in relation to obesity and CMDs, and engage with companies as relevant
	Strengthen education about weight and cardiometabolic health	Review and adopt updated guidelines regarding obesity and CMD management, as well as nutrition guidelines			
	Incorporate obesity inclusion awareness into diversity and inclusion (D&I) training (including recruitment, performance management and leadership decisions)	Consider developing specific obesity and CMD national strategies	Support prevention strategies from as early as pre-conception, especially for disadvantaged groups	Provide accessible communication on weight and metabolic health management	
	Communicate well-being initiatives as opportunities for health improvement (do not target individual behaviours)	Fund evidence-based care options to support health equity	Provide equitable and affordable evidence-based treatment options for people with obesity and CMDs	Build knowledge of implementation science in "real-world" settings for sustainable outcomes	

Source: Adapted and updated from PwC Australia and the Obesity Collective. (2022). Obesity, health, and nutrition: The role your organization can play

Conclusion

This report sets out a step-by-step approach to inspire employers to create a healthier workforce and contribute to a whole-of-society effort to fight disease.

Today, most employers are still reluctant to directly address health issues within the workplace. Their hesitations may be influenced by country-specific considerations or other variables such as cultural sensitivities, healthcare system financing models, legal requirements, industry type and the composition of the workforce. In addition, the scarcity of data on the impact and ROI of physical health interventions in the workplace may hinder executive decision-making. Finally, the lack of blueprint models or an implementation guide remains a significant barrier for many organizations to increase their investment in workforce health.

However, despite this understandable hesitation, employers are key stakeholders when it comes to improving “health for all” due to their continuous interaction with the workforce and the effect of work cultures on employees’ health and that of their families – as well as the broader reverberations on productivity, health costs, equity and sustainable growth. In addition, employers are increasingly conscious of their contribution to a whole-of-society effort to support people’s health. And trend-setting organizations are moving already to holistic approaches focused on the overall health outcomes of their employees. This will increasingly involve the implementation of targeted interventions that specifically address weight management and cardiometabolic health.

Future directions

Employee expectations – especially from younger generations – are increasingly centred on well-being at the workplace. This aligns with the broader societal goal of improving population health, particularly in relation to weight and cardiometabolic disorders.

Moving forward, it is crucial for employers and all stakeholders to strengthen the focus on employee health and well-being, and particularly to place a strong emphasis on generating academic-level data, as well as monitoring and evaluating the impact of workplace interventions on health

Expert insights and scientific literature indicate that employers that invest in workers’ health initiatives typically go through sequential steps, starting from an organization-specific assessment of the health risks at work and a review of employee needs and preferences. These initial steps enable employers to design and/or prioritize strategies that are relevant and impactful for the workforce. Most importantly, ways of working are reshaped to be conducive to healthy behaviours (“make healthy behaviours the easy behaviours”). Evaluating the success and impact of interventions is a continuous process, which allows investments to be adapted based on employees’ evolving needs and behaviour. Effective communication is also essential, to boost employee engagement and adherence.

Because of the wide societal implications, employers have the opportunity to engage in conversations and partnerships with other stakeholders to develop system-level approaches – this is essential to make an impact on health at the population level. For example, academic experts, governmental bodies and payers may collaborate on the development of public policies that aim to support healthier workforces in specific geographies, as well as designing evidence-based solutions for effective employee health support.

outcomes. This will enable focused and tailored investments in employee health based on the specific needs of the workforce, including harder-to-reach workers.

Finally, to achieve significant societal impact, it is important for different stakeholders to establish collaborations and partnerships involving both the public and private sectors. By sharing success stories, best practices and lessons learned, collective, whole-of-society efforts to improve holistic health can make a meaningful difference on a larger scale.

Future directions



- 1 Share workplace health interventions (best-practices, processes and outcomes) in real time
- 2 Engage academia in developing a robust evidence base and measurement of interventions
- 3 Drive and build collective will and effective business cases for sustained investment in physical health



Appendix: Methodology

This work is based on mixed-method research consolidating existing knowledge and evolving trends on weight and cardiometabolic health initiatives in the workplace.

The PwC team conducted a literature review of scientific papers, grey literature and quantitative datasets based on a targeted thematic search. Primary data was generated via in-depth interviews with employers, public health experts, patient representatives, insurers, service providers and PwC experts (see “Contributors”), which were primarily identified and engaged via the World Economic Forum’s Healthy Workforces platform. Specifically, employers included both national and multinational companies (headquarters and country offices) located globally and representing different industries. These employers were selected based on their interest in physical, weight and cardiometabolic health topics, overall conveying the views of innovators and trend-setters (rather than a representative view of all employers and sectors). Employers provided their perspective on investments in physical health in the workplace, with an emphasis on obesity and CMDs, the leadership’s interest in such investments, the challenges they face and the expected benefits. Public health experts and patient representatives validated the findings and provided insights into the crucial role of employers in this whole-of-society approach to fighting obesity and CMDs. Service providers, health insurers and care centres shared insights on the emerging models, approaches and technologies that employers could use to address weight and cardiometabolic health in the workplace.

As far as possible, and where relevant, PwC collected pertinent sources and evidence to support expert statements. The quality of evidence supporting the impact statements was internally assessed (i.e. good quality/peer-reviewed, moderate quality, assumption/hypothesis, controversial). This insight report was written based on findings supported by good-quality evidence (relevant sources indicated in the endnotes). Statements without a specified source should be understood as expert opinions (or, based on expert opinion).

Emerging themes and findings were discussed, reviewed and prioritized during a series of meetings with the steering committee (see “Contributors”) that took place in January–July 2024. The roadmap to investment and step-by-step approach were developed based on primary insights, backed by secondary sources and based on frameworks from PwC’s thought leadership papers.

The narrative for this insight report has been drafted independently by the PwC team, and subsequently presented, discussed and finalized based on the consolidated input provided by the World Economic Forum project team, strategic partners, steering committee, interviewees and PwC experts (see “Contributors”).

Contributors

World Economic Forum project team

Andrew Moose

Head, Health and Wellness, USA

Jahanara Rahemtulla

Lead, Health and Wellness, USA

PwC project team

Ronan Bigueur

Senior Consultant, Health Industries, Switzerland

Myriam Denk

Partner, People and Organization, Switzerland

Dominik Hotz

Advisory Leader, Switzerland

Jennifer Romanos

Consultant, Health Industries, Switzerland

Claudia Vittori

Senior Manager, Health Industries, Switzerland

Production team

Bianca Gay-Fulconis

Designer, 1-Pact Edition

Alison Moore

Editor, Astra Content

Charles Phillips

Editor, Astra Content

Jean-Philippe Stanway

Designer

Acknowledgements

The report has greatly benefitted from the insight and expertise of the members of the Steering Committee:

Arne Astrup

Senior Vice-President, Leader of Department of Obesity and Nutritional Sciences, Novo Nordisk Foundation, Denmark

Francesca Celletti

Senior Advisor, Obesity, World Health Organization, Switzerland

Anna Cichowska Myrup

Associate Director, Global Obesity Policy, Global Public Affairs and Patient Relations, Novo Nordisk, Denmark

Maria Dee

Executive Director, Workforce Well-Being, Kaiser Permanente, USA

Anne Oxider

Senior Vice-President – Benefits Executive, Bank of America, USA

Johanna Ralston

Chief Executive Officer, World Obesity Federation, USA

Elena Sterlin

Board Director, Vitality Global, USA

The World Economic Forum and PwC Switzerland would like to acknowledge the valuable contributions of the following experts who contributed to discussions as part of the development of this document:

Linda Anegawa

Chief Medical Officer/Chief of Medicine, Noom, USA

Michele Bareggi

Board Member, Athora, UK

Miriam Baumgartner

Culture and Change Senior Manager, PwC Switzerland

Allon Bloch

Co-Founder and Chief Executive Officer, K-Health, USA

Kelly Brownell

Professor and Dean Emeritus, School of Public Policy, Duke University, USA

Anne Bruneel

Field Market Access and Public Affairs Manager, Novo Nordisk, Belgium

Kris Cloots

Chief Executive Officer and Country Manager, ISS Facility Services NV, Belgium

Andrew Curcio

Partner, Global Co-Leader Reward & Benefits, PwC Australia

Etienne Dreyer

Partner, Health Industries, PwC Switzerland

Sean Duffy

Chief Executive Officer, Omada Health, USA

Sam Elliot

Reward Advisory Services Manager, PwC Australia

Christine Gallagher

Associate Director of Research and Policy, STOP Obesity Alliance, Milken Institute School of Public Health, George Washington University, USA

Emily Greenwood

Clinical Solutions Director, Transcarent, USA

Pernille Marie Hagendal

Head of People and Culture, PensionDanmark, Denmark

Thomas Heilskov-Hansen

Head of Health, Health & Safety, Novo Nordisk, Denmark

Mia Hjorth

Vice-President and Head, Health and Safety, Novo Nordisk, Denmark

Michael Kaufmann

Global Employee Health Services Associate Vice-President, Eli Lilly and Company, USA

Johan Lowette

Competence Center Health and Safety Leader, Colruyt Group, Belgium

Amalie Mäckler

Public Affairs Manager, Global Obesity Policy, Global Public Affairs & Patient Relations, Novo Nordisk, Denmark

Luiza Moraes

Global Employee Health and Well-Being Manager, Nestlé Health Science, Switzerland

Joe Nadglowski

President and Chief Executive Officer, Obesity Action Coalition, USA

Camila Oliveira

Basic Education Projects Senior Coordinator, iFood, Brazil

Camila Ozemala

Social Impact Vice-President, iFood, Brazil

Pankaj Paul

Strategic Adviser to the Chairman and Founder, Burjeel Holdings, United Arab Emirates

An de Roeck

Medical Director, Mensura, Belgium

Sarah Des Rosiers

Health Equity Director, Novartis Foundation, Switzerland

Tobias Schiergens

Senior Global Medical Officer, Swiss Re, Germany

Jan Schmitz-Hubsch

Partner and Middle East Healthcare and Life Sciences Leader, PwC Middle East, United Arab Emirates

Alexandra Søgaard Helbo

Senior Scientific Manager, Obesity and Nutritional Sciences, Novo Nordisk Foundation, Denmark

Andreas Tautz

Chief Medical Officer, DHL, Germany

Taus Tornhøj Sørensen

Public Affairs Specialist, Corporate Affairs, Novo Nordisk Foundation, Denmark

Ellen De Vleeschouwer

Chief Executive Officer, AG Insurance (Waldon), Belgium

Dan Xu

Senior Vice-President, Microtech Medical, China

Endnotes

1. Phelps, N. H., et al. (2024). Worldwide trends in underweight and obesity from 1990 to 2022: A pooled analysis of 3663 population-representative studies with 222 million children, adolescents, and adults. *The Lancet*, 403, 1027–1050. [https://doi.org/10.1016/S0140-6736\(23\)02750-2](https://doi.org/10.1016/S0140-6736(23)02750-2)
2. World Obesity Federation (WOF). (2024). *World Obesity Atlas 2024. Obesity and its consequences*. <https://www.worldobesity.org/resources/resource-library/world-obesity-atlas-2024>
3. Vaduganathan, M., et al. (2022). The global burden of cardiovascular diseases and risk: A compass for future health. *Journal of the American College of Cardiology*, 80, 2361–2371. <https://pubmed.ncbi.nlm.nih.gov/36368511/>
4. Institute for Health Metrics and Evaluation (IHME). (n.d.). *GBD Compare data visualization*. Seattle, WA: IHME, University of Washington. Retrieved 2024, August 1, from <http://vizhub.healthdata.org/gbd-compare>
5. World Health Organization (WHO). (2024). *Obesity and overweight*. <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight#:~:text=Overview,deposits%20that%20can%20impair%20health>
6. World Obesity Federation (WOF). (2022). *The economic impact of overweight and obesity in 2020 and 2060*. <https://data.worldobesity.org/publications/WOF-Economic-Impacts-2-V2.pdf>
7. Bolnick, H. J., et al. (2020). Health-care spending attributable to modifiable risk factors in the USA: An economic attribution analysis. *Lancet Public Health*, 5, e525–e535. [https://www.thelancet.com/pdfs/journals/lanpub/PIIS2468-2667\(20\)30203-6.pdf](https://www.thelancet.com/pdfs/journals/lanpub/PIIS2468-2667(20)30203-6.pdf)
8. Holmes, J. (2021). *Tackling obesity: The role of the NHS in a whole-system approach*. The King's Fund. <https://www.kingsfund.org.uk/insight-and-analysis/reports/tackling-obesity-nhs>
9. Tan, V., et al. (2023). The societal cost of modifiable risk factors in Singapore. *BMC Public Health*, 23, 1285. <https://doi.org/10.1186/s12889-023-16198-2>
10. Bajorek, Z., & Bevan, S. (2022). *Obesity stigma at work: Improving inclusion and productivity*. Institute for Employment Studies. https://www.employment-studies.co.uk/system/files/resources/files/Obesity%20Stigma%20at%20Work%20-%20Improving%20Inclusion%20and%20Productivity_0.pdf
11. Sullivan, P. W., & Ghushchyan, V. (2007). Cardiovascular risk factor clusters and employment in the United States. *Value in Health* 10, S52–S58. <https://doi.org/10.1111/j.1524-4733.2006.00155.x>
12. Organisation for Economic Co-operation and Development (OECD). (2019). *The heavy burden of obesity: The economics of prevention*. https://www.oecd.org/en/publications/the-heavy-burden-of-obesity_67450d67-en.html
13. GlobalData. (2024). *Assessing the economic impact of obesity and overweight on employers: Identifying paths toward work force health and well-being*. <https://www.globaldata.com/health-economics/US/Employers/Overweight-Obesity-Impact-on-Employers.pdf>
14. Stangl, A. L., et al. (2019). The health stigma and discrimination framework: A global, crosscutting framework to inform research, intervention development, and policy on health-related stigmas. *BMC Medicine*, 17, 31. <https://doi.org/10.1186/s12916-019-1271-3>
15. Loring, B., & Robertson, A. (2014). *Obesity and inequities: Guidance for addressing inequities in overweight and obesity*. World Health Organization. Regional Office for Europe. <https://iris.who.int/handle/10665/344619>
16. Thompson, D. R., Ski, C. F., & Clark, A. M. (2023). Advancing health equity in cardiovascular care. *European Journal of Cardiovascular Nursing*, 23, e23–e25. <https://pure.qub.ac.uk/en/publications/advancing-health-equity-in-cardiovascular-care>
17. Chou, Y.-C., et al. (2024). Impact of household income on the risk of overweight and obesity over time among preschool-aged children: A population-based cohort study. *BMC Public Health*, 24, 549. <https://pubmed.ncbi.nlm.nih.gov/38383321/>
18. Brownell, K. D., et al. (2010). Personal responsibility and obesity: A constructive approach to a controversial issue. *Health Affairs (Millwood)*, 29, 379–387. <https://pubmed.ncbi.nlm.nih.gov/20194976/>
19. Jastreboff, A. M., et al. (2019). Obesity as a disease: The Obesity Society 2018 Position Statement. *Obesity (Silver Spring)*, 27, 7–9. <https://pubmed.ncbi.nlm.nih.gov/30569641/>
20. Gorin, A. A., & Crane, M. M. (2008). The obesogenic environment. In E. Jelalian & R. G. Steele (Eds), *Handbook of childhood and adolescent obesity* (pp. 145–161). Springer.
21. Lobstein, T., & Brownell, K. (2021). Endocrine-disrupting chemicals and obesity risk: A review of recommendations for obesity prevention policies. *Obesity Reviews*, 22(11):e13332. <https://pubmed.ncbi.nlm.nih.gov/34409721/>
22. Organisation for Economic Co-operation and Development (OECD). (2022). *Promoting health and well-being at work*. https://www.oecd.org/en/publications/2022/11/promoting-health-and-well-being-at-work_ce16d7cd.html
23. World Obesity Day. (2023). *Creating healthy workplaces – helping employers build healthy and supportive work environments*. https://www.worldobesityday.org/assets/downloads/Creating_HW_v4.pdf
24. Duffy, E. Y., et al. (2021). Opportunities to improve cardiovascular health in the new American workplace. *American Journal of Preventive Cardiology*, 5, 100136. <https://www.sciencedirect.com/science/article/pii/S2666667720301367>

25. World Health Organization/International Labour Organization (WHO/ILO). (2021). *WHO/ILO joint estimates of the work-related burden of disease 2021*. <https://www.who.int/publications/i/item/9789240034945>
26. Doermann, C., Oancea, S. C., & Selya, A. (2020). The association between hours spent at work and obesity status: Results from NHANES 2015 to 2016. *American Journal of Health Promotion*, 34, 359–365. <https://pubmed.ncbi.nlm.nih.gov/31898469/>
27. World Health Organization/International Labour Organization (WHO/ILO). (2021). *WHO/ILO joint estimates of the work-related burden of disease 2021*. <https://www.who.int/publications/i/item/9789240034945>
28. Osewe, P. (2015). *Better health in mines and mining communities: A shared responsibility*. World Bank Blogs. <https://blogs.worldbank.org/en/health/better-health-mines-and-mining-communities-shared-responsibility>
29. Fichtenberg, C. M., & Glantz, S. A. (2002). Effect of smoke-free workplaces on smoking behaviour: Systematic review. *British Medical Journal*, 325, 188. <https://pubmed.ncbi.nlm.nih.gov/12142305/>
30. World Health Organization (WHO). (2023). *WHO acceleration plan to stop obesity*. Report No. 978-92-4-007563-4, 20. <https://www.who.int/publications/i/item/9789240075634>
31. World Health Organization/International Labour Organization (WHO/ILO). (2021). *WHO/ILO joint estimates of the work-related burden of disease 2021*. <https://www.who.int/publications/i/item/9789240034945>
32. Ervasti, J., et al. (2021). Long working hours and risk of 50 health conditions and mortality outcomes: A multicohort study in four European countries. *The Lancet Regional Health – Europe*, 11, 100212. [https://www.thelancet.com/journals/lanepi/article/PIIS2666-7762\(21\)00189-7/fulltext](https://www.thelancet.com/journals/lanepi/article/PIIS2666-7762(21)00189-7/fulltext)
33. Gao, W., et al. (2024). Occupational sitting time, leisure physical activity, and all-cause and cardiovascular disease mortality. *JAMA Network Open*, 7, e2350680. <https://pubmed.ncbi.nlm.nih.gov/38241049/>
34. Sara, J. D., et al. (2018). Association between work-related stress and coronary heart disease: A review of prospective studies through the job strain, effort-reward balance, and organizational justice models. *Journal of the American Heart Association*, 7. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6015274/>
35. Goettler, A., Grosse, A., & Sonntag, D. (2017). Productivity loss due to overweight and obesity: A systematic review of indirect costs. *BMJ Open*, 7, e014632. <https://bmjopen.bmj.com/content/7/10/e014632>
36. Song, X., et al. (2015). Productivity loss and indirect costs associated with cardiovascular events and related clinical procedures. *BMC Health Services Research*, 15, 245. <https://bmchealthserves.biomedcentral.com/articles/10.1186/s12913-015-0925-x>
37. Tabano, D. C., et al. (2018). Estimating the impact of diabetes mellitus on worker productivity using self-report, electronic health record and human resource data. *Journal of Occupational and Environmental Medicine*, 60, e569–e574. <https://pubmed.ncbi.nlm.nih.gov/30188491/>
38. Organisation for Economic Co-operation and Development (OECD). (2021). *Workplace-based programmes to promote health and well-being: Promoting health and well-being at work – policy and practices*. https://www.oecd.org/en/publications/2022/11/promoting-health-and-well-being-at-work_ce16d7cd.html
39. Penalvo, J. L., et al. (2021). Effectiveness of workplace wellness programmes for dietary habits, overweight, and cardiometabolic health: A systematic review and meta-analysis. *The Lancet Public Health*, 6, e648–e660. [https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667\(21\)00140-7/fulltext](https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(21)00140-7/fulltext)
40. Cohen, C., et al. (2023). Workplace interventions to improve well-being and reduce burnout for nurses, physicians and allied healthcare professionals: A systematic review. *BMJ Open*, 13, e071203. <https://pubmed.ncbi.nlm.nih.gov/37385740/>
41. Wein, D. (2018). *Win with wellness – attract and retain talent*. Forbes Business Development Council. <https://www.forbes.com/sites/forbesbusinessdevelopmentcouncil/2018/08/27/win-with-wellness-attract-and-retain-talent/>
42. Sanchez-Hernandez, M. I., et al. (2019). Work–life balance in great companies and pending issues for engaging new generations at work. *International Journal of Environmental Research and Public Health*, 16. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6950576/>
43. PwC. (2022). *Rethinking total reward to deliver total wellness – playbook*. <https://www.pwc.com/gx/en/services/workforce/total-reward-total-wellness.html#:~:text=PwC's%20'Rethinking%20Total%20Reward%20to,to%20the%20total%20reward%20equation>
44. Brand, S. L., et al. (2017). Whole-system approaches to improving the health and wellbeing of healthcare workers: A systematic review. *PLoS One*, 12, e0188418. <https://pubmed.ncbi.nlm.nih.gov/29200422/>
45. Collins, J. J., et al. (2005). The assessment of chronic health conditions on work performance, absence, and total economic impact for employers. *Journal of Occupational and Environmental Medicine*, 47, 547–557. <https://pubmed.ncbi.nlm.nih.gov/15951714/>
46. GlobalData. (2024). *Assessing the economic impact of obesity and overweight on employers: Identifying paths toward work force health and well-being*. https://www.globaldata.com/health-economics/US/Employers/Overweight-Obesity-Impact-on-Employers.pdf?utm_source=cision&utm_medium=press-release&utm_campaign=gd_pr_us_obesity_overweight_21-02-24
47. Horstman, C. M., et al. (2021). Return on investment: Medical savings of an employer-sponsored digital intensive lifestyle intervention, weight loss. *Obesity (Silver Spring)*, 29, 654–661. <https://doi.org/10.1002/oby.23117>

48. Wellable. (2024). *2024 Employee Wellness Industry Trends Report*. [https://www.wellable.co/resources/employee-wellness-industry-trends-reports/2024/#:~:text=In%202024%2C%20the%20majority%20of,lifestyle%20spending%20accounts%20\(52%25\)](https://www.wellable.co/resources/employee-wellness-industry-trends-reports/2024/#:~:text=In%202024%2C%20the%20majority%20of,lifestyle%20spending%20accounts%20(52%25))
49. Sanchez-Hernandez, M. I., et al. (2019). Work-life balance in great companies and pending issues for engaging new generations at work. *International Journal of Environmental Research and Public Health*, 16. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6950576/>
50. Foncubierta-Rodriguez, M. J., Poza-Mendez, M., & Holgado-Herrero, M. (2024). Workplace health promotion programs: The role of compliance with workers' expectations, the reputation and the productivity of the company. *Journal of Safety Research*, 89, 56–63. <https://www.sciencedirect.com/science/article/pii/S0022437524000227>
51. United Nations. (2023). *The sustainable development goals report 2023*. <https://unstats.un.org/sdgs/report/2023/>
52. Barati Jozan, M. M., et al. (2023). Impact assessment of e-trainings in occupational safety and health: A literature review. *BMC Public Health*, 23, 1187. <https://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-023-16114-8>
53. Guest, A. J., et al. (2020). Cardiometabolic risk factors and mental health status among truck drivers: A systematic review. *BMJ Open*, 10, e038993. <https://bmjopen.bmj.com/content/10/10/e038993>
54. Nelson, C. C., et al. (2014). Physical activity and body mass index: The contribution of age and workplace characteristics. *American Journal of Preventive Medicine*, 46, S42–51 <https://pubmed.ncbi.nlm.nih.gov/24512930/>
55. Cairns, J. M., et al. (2015). Weighing up the evidence: A systematic review of the effectiveness of workplace interventions to tackle socio-economic inequalities in obesity. *Journal of Public Health (Oxford)*, 37, 659–670. <https://pubmed.ncbi.nlm.nih.gov/25316262/>
56. World Health Organization (WHO). (2023). *WHO acceleration plan to stop obesity*. Report No. 978-92-4-007563-4, 20. <https://www.who.int/publications/i/item/9789240075634>
57. Stamenic, D., et al. (2024). Health care utilization and the associated costs attributable to cardiovascular disease in Ireland: A cross-sectional study. *European Heart Journal – Quality of Care and Clinical Outcomes*. qcae014. <https://academic.oup.com/ehjqcco/advance-article/doi/10.1093/ehjqcco/qcae014/7612251>
58. Côté, D., et al. (2021). A rapid scoping review of COVID-19 and vulnerable workers: Intersecting occupational and public health issues. *American Journal of Industrial Medicine*, 64, 551–566. <https://pubmed.ncbi.nlm.nih.gov/34003502/>
59. European Federation of Pharmaceutical Industries and Associations (EFPIA). (2022). *Towards a new normal: Why boosting CV health is critical*. https://efpia.eu/media/636965/towards-a-new-normal_why-boosting-cv-health-is-critical_final.pdf
60. Jiménez-Mérida, M. R., et al. (2023). Effectiveness of multicomponent interventions and physical activity in the workplace to reduce obesity: A systematic review and meta-analysis. *Healthcare (Basel)*, 11(8):1160. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10137796/#B43-healthcare-11-01160>
61. The growing use of CGM among healthy people and athletes is currently being observed. Conclusive evidence on the benefits is not yet available.
62. The Obesity Collective. (2024). *Reporting obesity responsibly: A guide for media*. https://theobesitycollective.org.au/wp-content/uploads/2022/10/Statement_Reporting-obesity-responsibly_a-guide-for-media.pdf
63. PwC (2024). *Global Workforce Hopes and Fears Survey 2024*. <https://www.pwc.com/gx/en/issues/workforce/hopes-and-fears.html>
64. Ro & Obesity Action Coalition. (2023). *Survey: Living with obesity in the time of GLP-1s*. <https://ro.co/weight-loss/obesity-and-GLPs-survey/#future-of-work>
65. Yoon, N. H., et al. (2015). Routine screening and consultation facilitate improvement of metabolic syndrome. *Journal of Korean Medical Science*, 30, 1092–1100. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4520940/>
66. Idomoto, Y. (2019). *Eating disorders on the rise in Japan: The reasons, the lack of support, and what's being done*. Tokyo Weekender. <https://www.tokyoweekender.com/japan-life/news-and-opinion/eating-disorders-on-the-rise-in-japan-the-reasons-the-lack-of-support-and-whats-being-done/>
67. Johnson, W. G., et al. (2015). Perceptions of overweight in US and global cultures. *Eating Behaviors*, 17, 125–129. <https://www.sciencedirect.com/science/article/abs/pii/S1471015315000173>
68. Akaliyski, P., et al. (2022). The weight of culture: Societal individualism and flexibility explain large global variations in obesity. *Social Science and Medicine*, 307, 115167. <https://pubmed.ncbi.nlm.nih.gov/35849963/>
69. Lin, H., et al. (2023). Evaluation of a workplace weight management program based on WeChat platform for obese/overweight people in China using the RE-AIM framework. *Preventive Medicine Reports*, 34, 102275. <https://www.sciencedirect.com/science/article/pii/S2211335523001663>
70. Damen, M. A. W., et al. (2023). Factors associated with blue-collar workers' participation in worksite health promotion programs: A scoping literature review. *Health Promotion International*, 38. <https://pubmed.ncbi.nlm.nih.gov/37379570/>
71. World Health Organization (WHO). (2020). *Obesity and overweight*. WHO Fact sheet. <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>
72. Miranda, J. J., et al. (2019). Understanding the rise of cardiometabolic diseases in low- and middle-income countries. *Nature Medicine*, 25, 1667–1679. <https://www.nature.com/articles/s41591-019-0644-7>

73. Popkin, B. M., & Slining, M. M. (2013). New dynamics in global obesity facing low- and middle-income countries. *Obesity Reviews*, 14 Supplement 2, 11–20. <https://pubmed.ncbi.nlm.nih.gov/24102717/>
74. Lauber, K., et al. (2022). Corporate political activity in the context of sugar-sweetened beverage tax policy in the WHO European Region. *European Journal of Public Health*, 32, 786–793. <https://academic.oup.com/eurpub/article/32/5/786/6696765>
75. Mendis, S., Graham, I., & Narula, J. (2022). Addressing the global burden of cardiovascular diseases; need for scalable and sustainable frameworks. *Global Heart*, 17(1):48. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9336686/>
76. Hanson, K., et al. (2022). The Lancet Global Health Commission on financing primary health care: Putting people at the centre. *Lancet Global Health*, 10, e715–e772. [https://www.thelancet.com/journals/langlo/article/PIIS2214-109X\(22\)00005-5/fulltext](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(22)00005-5/fulltext)
77. Curcio, A., & Woods, A. (2021). *Rethinking total reward strategies*. Strategy+Business. <https://www.strategy-business.com/article/Rethinking-total-reward-strategies>
78. Organisation for Economic Co-operation and Development (OECD). (2022). *Promoting health and well-being at work*. https://www.oecd.org/en/publications/2022/11/promoting-health-and-well-being-at-work_ce16d7cd.html



COMMITTED TO
IMPROVING THE STATE
OF THE WORLD

The World Economic Forum, committed to improving the state of the world, is the International Organization for Public-Private Cooperation.

The Forum engages the foremost political, business and other leaders of society to shape global, regional and industry agendas.

World Economic Forum
91–93 route de la Capite
CH-1223 Cologny/Geneva
Switzerland

Tel.: +41 (0) 22 869 1212
Fax: +41 (0) 22 786 2744
contact@weforum.org
www.weforum.org