

Optimising Workplace Health: The Business Case for Modernising Training for Computer Users

WHITE PAPER

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Executive Summary

“We worry top-down, but we invest bottom-up”. *Seth Klarman*

This white paper challenges the prevailing belief that computer-based roles are inherently safe, urging a critical re-evaluation of workplace health. [As technology and screen usage increase across sectors](#)—particularly in global Business Process Outsourcing (BPO), Contact Centre (CX), and knowledge work environments (e.g., clerical/office staff)—the traditional paradigms of workplace design and health risk management are [increasingly inadequate](#).

The data presented herein reveals a concerning rise in serious health issues, including [Work-Related Musculoskeletal Disorders \(WMSDs\)](#), [Digital Eye Strain \(DES\)](#), and various [psychosocial hazards and chronic health issues](#), despite the prevalence of ergonomics training and wellness programs. These programs often operate in silos, failing to address the interconnected nature of workplace health challenges. As a result, employee well-being is jeopardised, leading to repercussions for both employers and employees, including [significant financial burdens, increased medical claims, absenteeism, high attrition rates, and reduced productivity](#). The findings indicate that mere compliance with existing regulations is insufficient; a more proactive and holistic approach is urgently required. Neglecting workplace health has significant financial implications, including reduced employee engagement, increased turnover rates, and a damaged organisational reputation. Furthermore, [presenteeism](#) the “silent productivity killer”—can account for up to 60% of lost productivity. This underscores the urgent need to expand and tailor existing [proactive health initiatives](#) specifically to meet the unique needs of employees in these work environments.

Central to our argument is [the need for a cultural shift](#) that involves all stakeholders, including organisations, employees, and regulatory bodies. This collaborative effort should focus on comprehensive strategies addressing the limitations of traditional ergonomic training and the need to build new health and safety behaviours specific to computer-based work. By [equipping employees with the knowledge, practical tools](#) and [somatic awareness](#) to manage their health, organisations can promote positive work behaviours

that contribute to a healthier workplace. This includes targeted physical conditioning interventions, which can significantly reduce risks and improve recovery times from work-related conditions. Additionally, it is essential to address psychosocial hazards by redesigning work environments. Recognising these elements is crucial for achieving a holistic outcome that enhances individual well-being and [boosts organisational productivity and resilience](#).

Leaders and managers play a pivotal role in this transformation. By understanding the risks and advocating for a culture of health and safety, leaders can champion preventive programs tailored to the unique demands of their workforce. Aligning with the [ISO 31000 framework, encouraging open communication about ergonomic and psychosocial concerns](#) will help identify gaps in current practices, ultimately leading to increased engagement and better resource utilisation. A combined top-down and bottom-up strategy incorporating a [change management approach](#) is essential for fostering a sustainable, healthy workplace culture.

Investing in employee well-being is not merely an ethical imperative but a [strategic necessity](#) for organisational resilience and growth. This paper provides the research foundation for adopting a holistic approach to managing health risks for knowledge workers, reinforcing the importance of a supportive workplace that attracts top talent and drives innovation. Integrating these insights into organisational values is essential for enhancing employee well-being, reducing risks, and fostering greater engagement and job satisfaction. We invite you to explore this white paper's comprehensive findings and actionable recommendations to ensure a healthier, more productive workforce.



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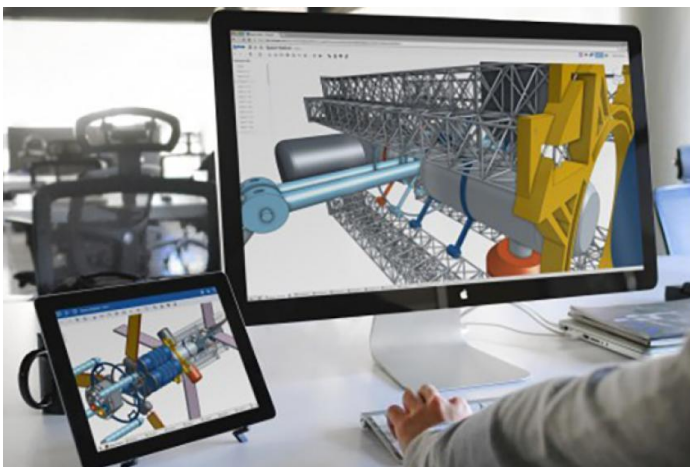
The Changing Landscape of Computer-Based Work

Big Picture

The contemporary work environment is undergoing a significant shift, characterised by a growing dependence on digital tools and computers, driven by technological advancements and artificial intelligence (AI). This transformation leads to substantial changes in work dynamics as organisations embrace these technologies to enhance productivity, facilitate collaboration, and streamline operations.

Over the last two decades, industries have witnessed profound changes as they transition from manual, hands-on tasks to computer-based environments. For instance, in the manufacturing sector, the integration of automation and computer-aided design (CAD) has replaced manual assembly lines, with many manufacturers now leveraging robotics to achieve greater efficiency ¹ (see Figure 1). Similarly, precision farming techniques in agriculture are being used to monitor crops through data analytics, drones, and sensors, departing from traditional manual scouting methods ² (see Figure 2). Retail operations have been revolutionised by automated inventory management systems and integrated point-of-sale (POS) systems, enabling real-time stock tracking ³. Furthermore, the telecommunications industry has evolved, with customer service shifting from in-person interactions to remote support facilitated by CRM systems ⁴.

Figure 1: Integrated technology and screen use in the manufacturing sector



Adopted from: <https://professional.mit.edu/news/articles/behind-mits-new-advances-computer-aided-design-manufacturing-summer-course>

Figure 2: Integrated technology and screen use in the agriculture sector

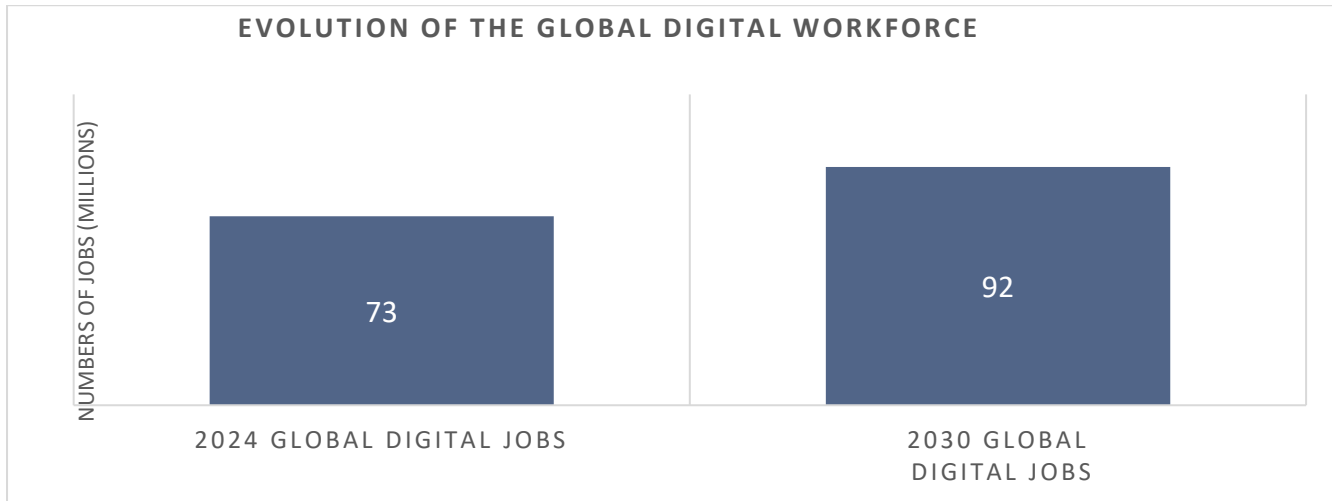


Adopted from: <https://www.fruitnet.com/main-navigation/integrated-digitisation-crucial-for-agriculture/255288.article>

These examples underscore a broader trend towards digitisation across multiple sectors, highlighting the increasing role of technology and screen use in everyday work. The future of work is increasingly digital, with an estimated 26% increase in global digital jobs by 2030 ⁵ (see Figure 3), and over 85% of employers planning to expand technology adoption in the next five years ⁶.



Figure 3: Evolution of the Global Digital Workforce

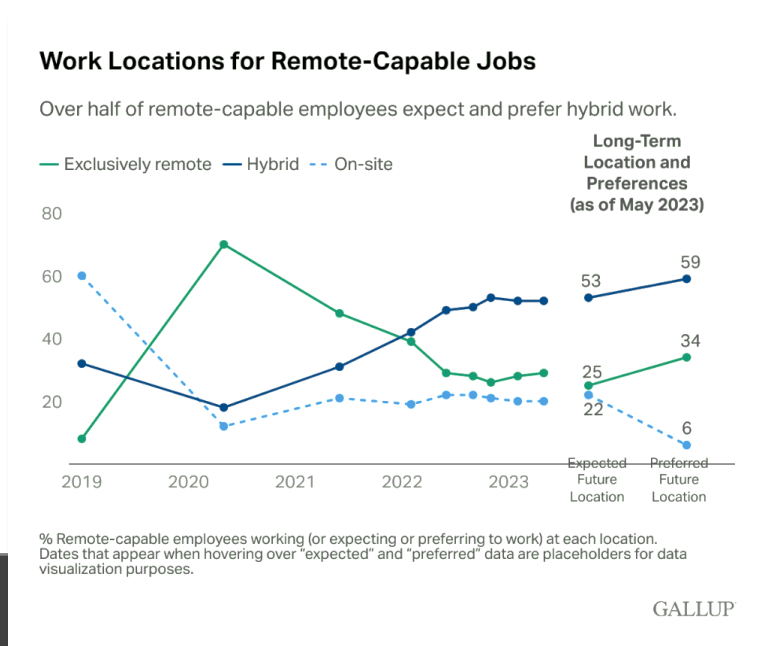


Adapted from ⁶: <https://www.weforum.org/agenda/2024/01/remote-global-digital-jobs-whitepaper/>

Global events like the COVID-19 pandemic have sped up the pace of this evolution. This crisis has led many organisations to implement remote work practices on an unprecedented scale ⁵. Flexibility in work arrangements has become a defining feature of the modern workplace. The increasing popularity of hybrid models, where employees divide their time between remote and in-office work, reflects a broader trend towards accommodating diverse work styles and the workforce ⁷ (see Figure 4). Notably, a report by AHRI indicates that companies offering flexible work arrangements can achieve an impressive 62% retention rate ⁸, signifying the enduring nature of this trend.

In the context of hybrid work, characterised by prolonged periods of sedentary behaviour and increased screen time, it is imperative to prioritise injury prevention from the outset. Employees may encounter difficulties associated with limited access to ergonomic furniture, which can give rise to various physical and mental health challenges. By placing early emphasis on injury prevention strategies, we can mitigate risks and cultivate a healthier work environment, ultimately safeguarding employee well-being and reducing the likelihood of chronic health issues in the long term ⁹.

Figure 4: Hybrid work Trend



Adapted from ⁷: <https://www.gallup.com/workplace/547283/workplace-trends-leaders-watch-2024.aspx>



The Impact of Prolonged Computer Use on Physical and Mental Health

Physical health Issues

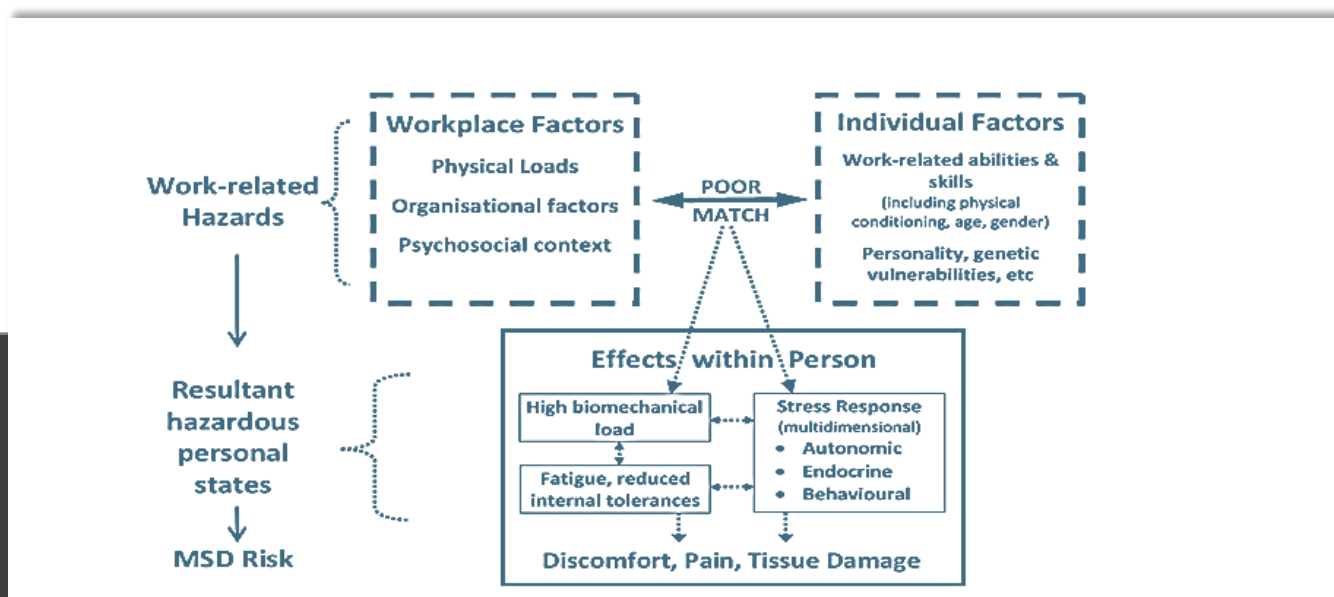


Musculoskeletal Disorders (MSDs)

Prolonged sedentary behaviour and excessive screen use are the leading causes of musculoskeletal disorders (MSDs), encompassing various inflammatory and degenerative conditions affecting muscles, tendons, ligaments, joints, nerves, and blood vessels ¹⁰. Common examples include repetitive strain injuries (RSIs), back injuries, osteoarthritis, bursitis, carpal tunnel syndrome (CTS), and diabetes ¹¹.

These disorders have complex causes, often stemming from multiple workplace hazards, and can be challenging to classify as either injuries or diseases ¹¹. Recent analyses on work-related musculoskeletal disorders (WMSDs) have unveiled compelling connections, such as the impact of strenuous physical labour, elevated psychosocial pressures, and the risks associated with biomechanical factors like uncomfortable postures and repetitive duties ^{12,13} (see Figure 5). As per the Work Health and Safety Regulations, MSDs are defined as 'an injury to, or disease of, the musculoskeletal system, whether occurring suddenly or over time' ¹¹.

Figure 5: A simplified Composite Model of WMSD risk

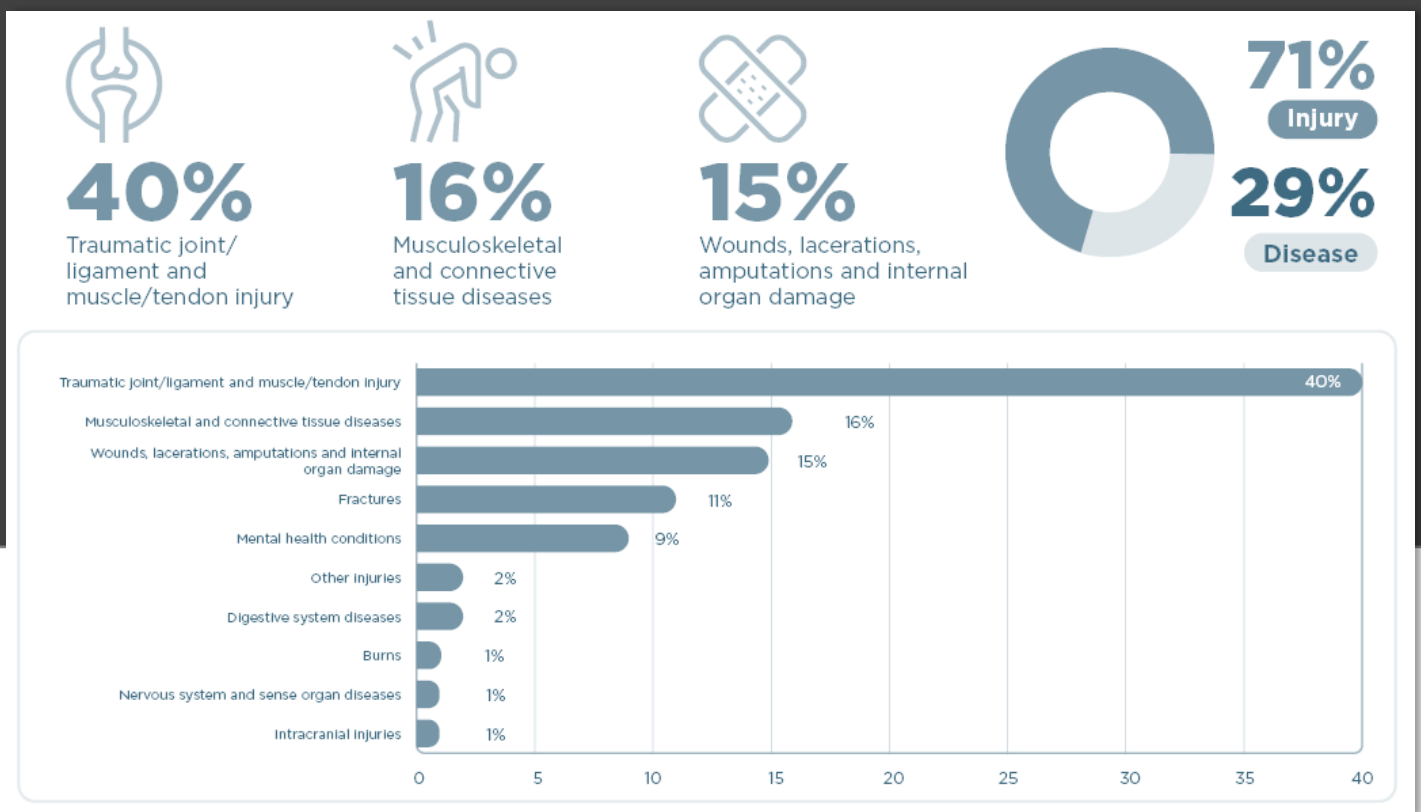


Adapted from ¹²: Macdonald, W. & Oakman, J.



MSDs are a significant health concern in Australia, affecting 6.9 million individuals in 2014-15 (with increased trajectory of 7.3 million in 2020-2021¹⁴) and accounting for 12% of the country's overall disease burden¹¹. Back pain represents the most significant portion, comprising 31% of the MSD burden, with occupational factors linked to 17% of cases¹¹. The economic impact of WMSDs is substantial, with costs surpassing \$24 billion in 2012-2013, and they make up 60% of serious workers' compensation claims¹¹. As Australia's workforce ages¹⁵, there is an increasing need to tackle the risks associated with WMSDs, mainly since older workers are more susceptible to health issues and face longer recovery times¹⁶. More recent data from the Key Work Health and Safety Statistics Australia 2022 report indicates a substantial claim rate regarding the musculoskeletal system¹⁷ (see Figure 6). Globally, musculoskeletal conditions impact about 1.71 billion people, with low back pain (LBP) being the leading cause of disability in 160 countries¹⁸. These conditions greatly limit mobility and agility, which are associated with early retirement and reduced social participation¹⁸.

Figure 6: Increased claim rates regarding the musculoskeletal system



Adapted from ¹⁷: Safe Work Australia

To clarify, the economic impact of WMSDs is distinct from health system expenditures on MSDs, which stand at \$14.7B in 2020-2021 in the Australian health system¹⁴ (see Figure 7). The WMSDs encompass costs related to lost productivity, absenteeism, presenteeism, disability payments, workers' compensation claims, and indirect costs such as training replacements and decreased employee morale^{18,19}. In contrast, health system expenditures focus on the direct costs incurred by healthcare systems for treating MSDs, which include medical consultations, surgeries, medications, rehabilitation services, and long-term care²⁰. Both aspects reflect the burden of musculoskeletal conditions.

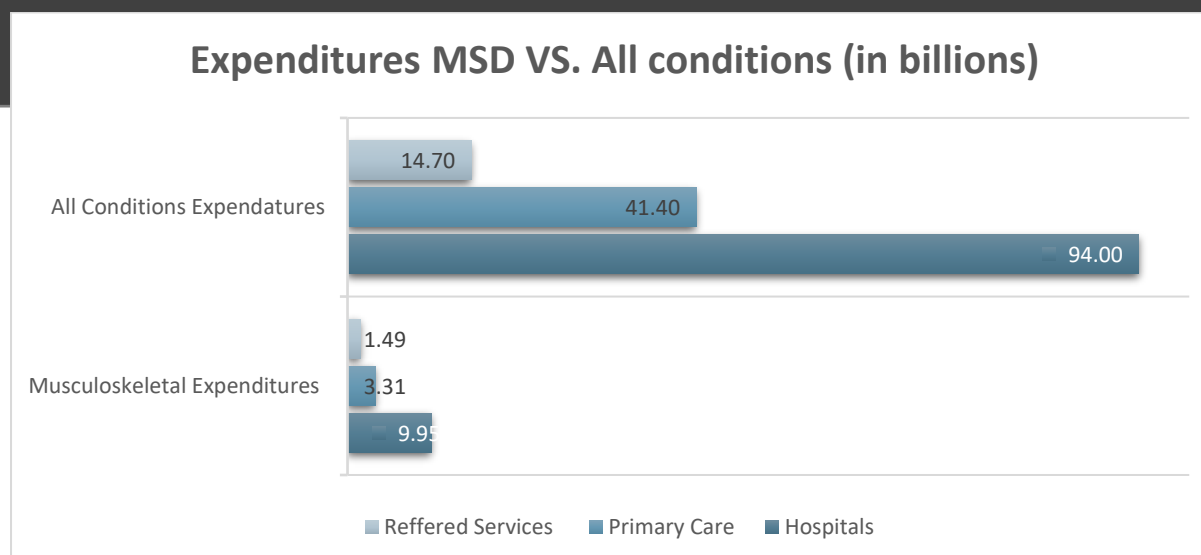
Considerable evidence underscores the impact of various interacting factors on the risk of WMSDs, including age, gender, prolonged computer usage, low educational attainment, insufficient physical activity, absence of ergonomics training, repetitive movements, and awkward body postures (see Table 1)¹⁹. Consequently, developing effective interventions represents a substantial challenge¹¹, making computer users highly susceptible to the adverse effects of WMSDs, which are the primary source of work-related illness in the United States¹⁹.



“MSDs were identified as priority disorders in the Australian Work Health and Safety Strategy 2012–2022”

(The Australian Strategy)

Figure 7: MSD health system expenditures



Adapted from ¹⁴: <https://www.aihw.gov.au/reports/chronic-musculoskeletal-conditions/musculoskeletal-conditions/contents/summary>

As mentioned, another common WMSD condition is CTS ¹¹, caused by compression of the median nerve in the wrist due to repetitive movements, such as typing or prolonged pressure ²¹. While the connection between CTS and computer-based work is still not fully understood ^{21, 22}, it is linked to an increased risk of developing CTS. It is recognised as a significant occupational health concern ^{23, 24}. Symptoms range from numbness and tingling to functional impairment, significantly affecting job performance and quality of life, leading to increased absenteeism, productivity losses, and compensation claims, which can impact businesses and society at large ²¹.

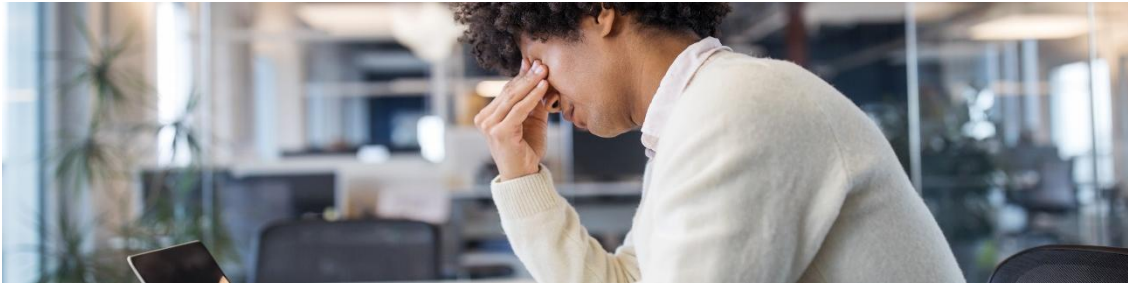
Table 1: Examples of Risk factors for MSD

Personal Demographic Factors	Older age
	Extended work experience
	Poor educational status
	BMI
Lifestyle and Health Factors	Lack of regular physical exercise
	Smoking
	Stress
	Poor wellbeing
Work Environment Factors	Prolonged computer use
	Repetitive movement
	Prolonged Static position
	Heavy workload
	Lack of ergonomics training

Adapted from ¹⁹: Demissie, B. et al.



Physical health Issues



Eye Strain (Computer Vision Syndrome)

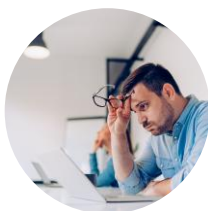
The swift digital evolution, further accelerated by the COVID-19 pandemic, has led to a notable increase in the occurrence of Digital Eye Strain (DES)—formerly referred to as computer vision syndrome (CVS)—among a wide range of demographics, particularly students and professionals who depend heavily on screens ²⁵. DES is characterised by various eye and vision issues resulting from prolonged use of digital devices, high screen brightness, and preceding dry eye conditions, with symptoms including eyestrain, headaches, and blurred vision ^{25, 26, 27}.

A recent report from the Deloitte Economics Institute and the American Optometric Association highlights the growing screen time among Americans, raising the risk of eye problems like myopia and digital eye strain, ultimately impacting well-being and productivity (see Figure 8) ²⁸.

Figure 8: associated risks with prolonged screen time



- Neck pain
- Back pain
- Long-term skeletomuscular pain
- Headaches
- Migraines



- Poor sleep
- Difficulty concentrating
- Reduced Productivity



- Dry eyes
- Eye tension
- Itching eyes
- Blurred/double vision
- Short or Long-term Myopia

Adapted from ²⁸: American Optometric Association.

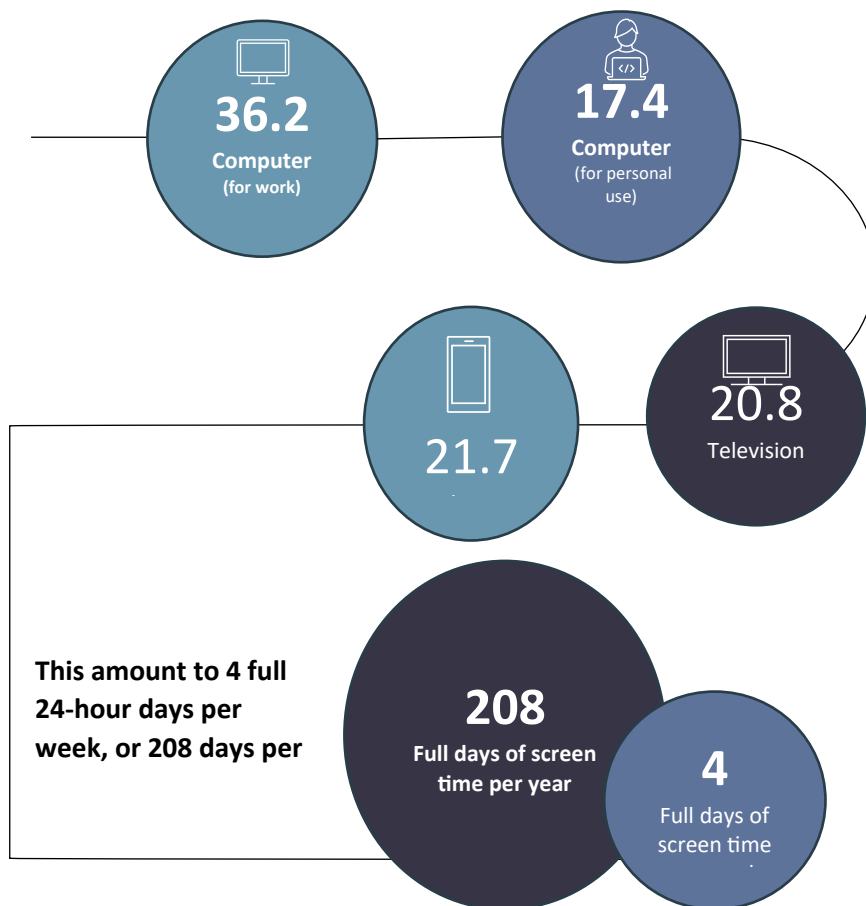


In 2023, an astounding 104 million working-age Americans committed over seven hours per day to screen time, resulting in an estimated \$151 billion in costs ²⁸. These costs, associated with excessive screen time, include expenses for aids and modifications, pharmaceuticals, consultations with optometrists, consultations with general practitioners, emergency department visits, total productivity losses, and overall well-being costs ²⁸. Close to 70% of office workers reported excessive screen time ²⁸. The report suggests that annual optometrist visits could generate up to \$45.5 billion in productivity gains and \$26.3 billion in improvements in well-being ²⁸.

The 2024 Workplace Vision Health Report surveyed 800 HR leaders and 800 full-time U.S. employees and revealed severe concerns regarding how excessive screen time (see Figure 9) affects employee eye health ²⁹. Many employees are compelled to work longer hours due to understaffing and increased workloads, which worsens eye health issues and reduces productivity ²⁹. Generation Z employees are particularly vulnerable, frequently working nights and weekends (see Figure 10) ²⁹. Additionally, remote workers face heightened screen exposure, underscoring the need for tailored interventions ²⁹.

Figure 9: Reported screen time

In a typical week, workers reported getting 96.1 hours of screen



Adapted From ²⁹: VSP Vision Care.



Figure 10: Eye health issues- Generation data

	Overall	Gen Z	Millennials	Gen X	Baby Boomers
% working longer hours	69%	82%	78%	65%	50%
% experiencing worsening eye health due to longer work hours	43%	54%	49%	39%	31%
% who work while on vacation	44%	50%	57%	43%	36%

Adopted From ²⁹: VSP Vision Care.

In 2012, 48% of Australian office workers suffered from CVS due to prolonged screen use ³⁰. The 2022 Vision Index report sampled 1,000 demographically representative Australians and found increased screen time use, 42% due to remote work, and 38% working extensive hours from home. An increased rate of tired eyes was associated with work while using digital tools ³¹ (see Figure 11).

Figure 11: The impact of increased screen time

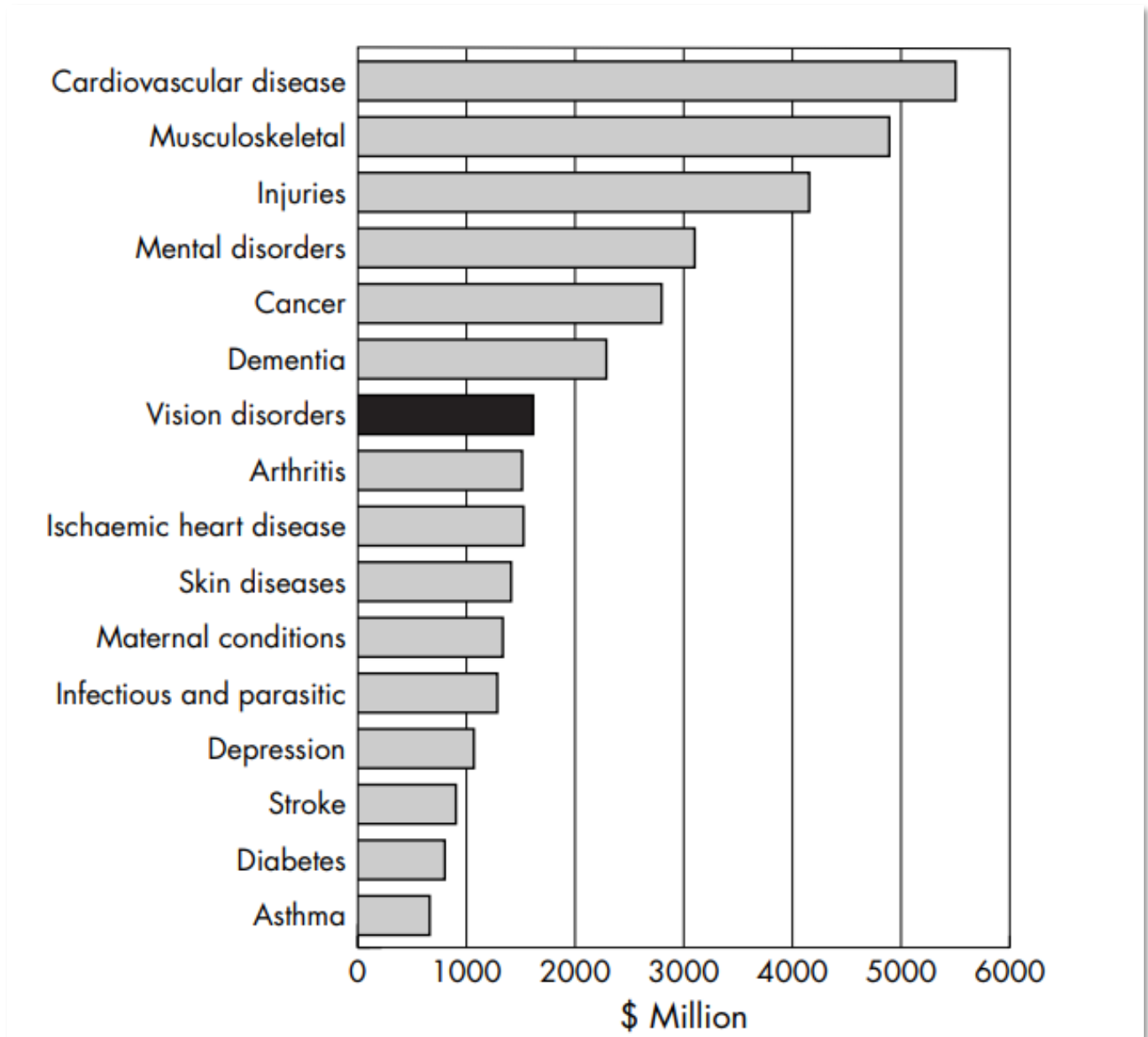
86% Experienced sore or tired eyes when using a computer or tablet	Up 8%	From 2020
88% Experienced sore or tired eyes when using computer or tablet for work	Up 9%	From 2020
84% Experienced sore or tired eyes when using a smartphone for work	Up 13%	From 2020

Adapted from ³¹: Optometry Australia.

The financial toll of vision loss in Australia in 2004 was approximately \$9.85 billion, highlighting the pressing need for effective treatments, targeted prevention strategies, and increased research into vision disorders ³². Vision disorders accounted for 2.7% of the national well-being loss, ranking as the seventh most significant cause ³² (see Figure 12). Of this economic burden, \$4.8 billion was linked to decreased well-being due to disability and early death ³². Direct healthcare costs were about \$1.8 billion, with projections suggesting an increase of \$1–2 billion between 2004 and 2014 ³². Additionally, indirect costs—including caregiving expenses and lost wages—amounted to \$3.2 billion ³². Addressing this issue is crucial for improving public health and reducing economic strain on the healthcare system ³².



Figure 12: Comparison of the direct health costs of various health conditions in Australia 2000-2001



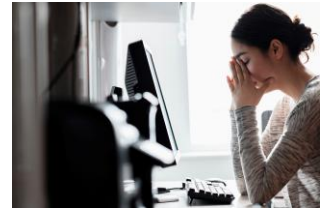
Adopted from ³²: Taylor, HR.et al.

“The automatons are not as autonomous as advertised. They need us. Those computers that were supposed to do our calculations for us instead demand our attention: for ten hours a day, we are glued to our screens.”

P. Chabot, Global Burnout, Bloomsbury Academic, New York, 2019.



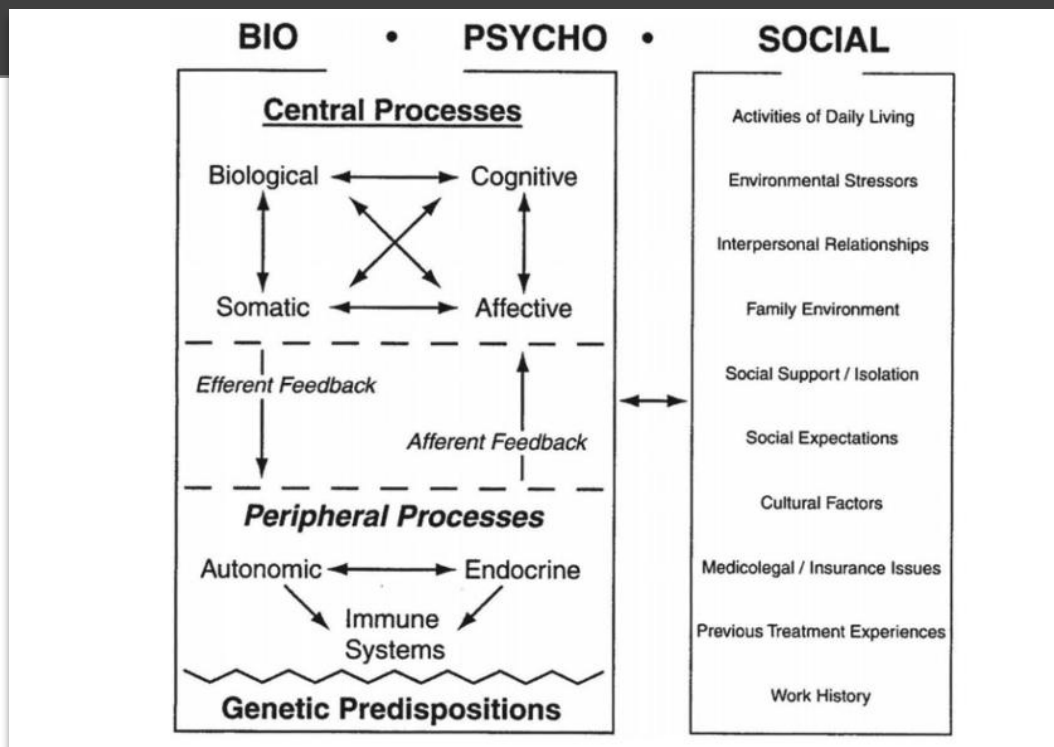
Mental health Issues



Psychological Implications of Chronic Pain

Modern theories emphasise the subjective nature of pain and its influence on emotional state ³³ (see Figure 13). Conditions such as MSDs, CTS, and DES can disrupt physiological balance and contribute to stress-related disorders ³⁴. Emotional distress can deepen pain perception, while prolonged pain may lead to feelings of isolation, frustration, and despair, intertwining emotions like anxiety, stress, anger, and depression ³⁴. The effects of anger and frustration on pain and treatment acceptance are significant ^{35, 36}. Anger can increase pain intensity, interfere with daily life, and affect the effectiveness of pain management ^{35, 36}. It may also hinder motivation and acceptance of rehabilitation-focused treatments for chronic pain ^{35, 36}. Anxiety is associated with the fear of (re)injury ³⁷, heightened muscle tension ³⁸, lack of support ³⁴ and may increase avoidance and reduce motivation ³⁹. Finally, chronic pain can lead to the development of depression ⁴⁰, while in other cases, it is the reverse ⁴¹, highlighting the interdependent relationship between the two ⁴².

Figure 13: A Conceptual model of the biopsychological interactive process involved in health and illness.



Adapted from ³³: Gatchel, R.J.



Mental health Issues



Chronic health issues and Psychosocial hazards related to sedentary behaviour

Chronic pain, which persists for more than three months, impacts 10% to 20% of adults in the United States and is projected to increase by 57% among individuals aged 65 and older by 2030³⁴. As mentioned, prolonged sedentary behaviour and extensive computer use can escalate from occasional discomfort to protracted and chronic pain, particularly MSDs affecting the neck, shoulders, arms, and wrists^{43, 44}. Extended periods of sitting can lead to muscle tension and discomfort, which may cause ailments like LBP and neck pain⁴⁵. Repetitive wrist movements may contribute to CTS; prolonged screen exposure can result in eye strain and digital fatigue, leading to headaches and blurred vision⁴⁵.

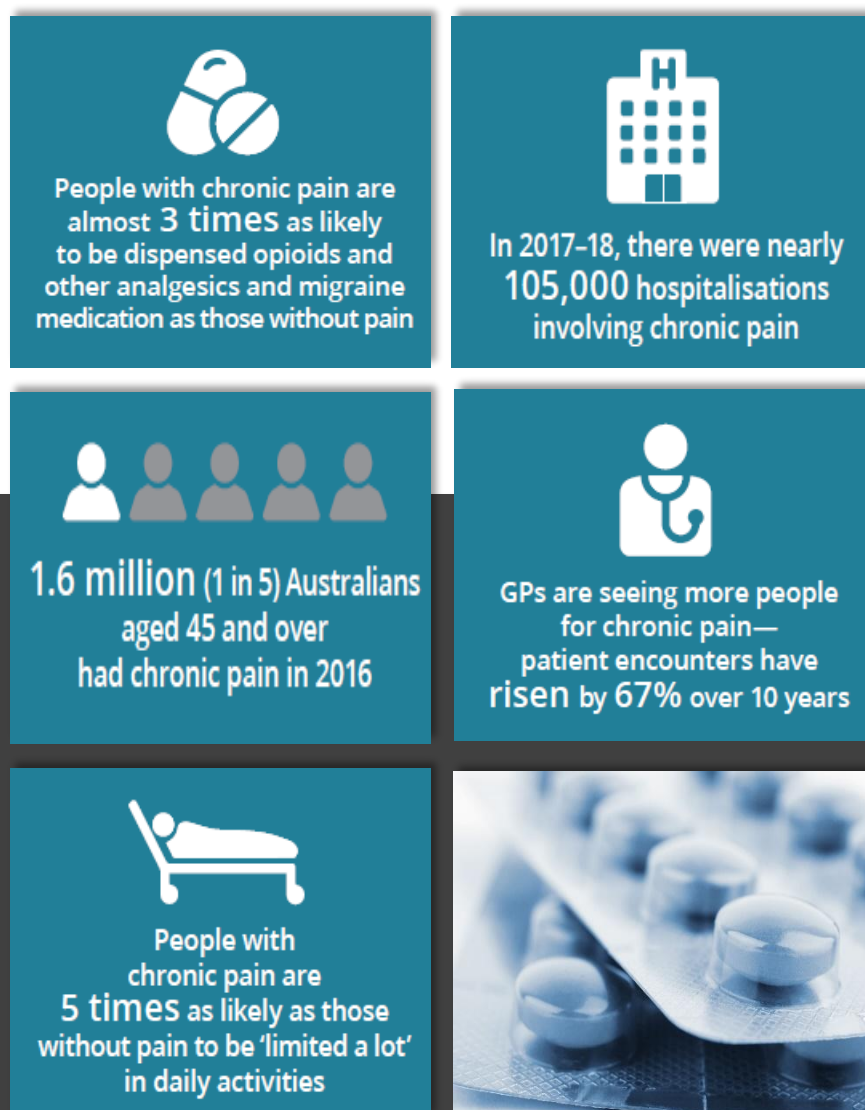
Furthermore, psychosocial hazards associated with excessive computer use—stemming from factors like work design, environment, and interactions—can exacerbate psychological stress^{46, 47}. These hazards may include fatigue, high job demands, low job control, job uncertainty, and blurred boundaries between work and personal life^{45, 46, 47}. Perceived effort-reward imbalance can result in muscle tension, especially in the neck and shoulders, often due to stress⁴⁸. This creates a harmful cycle of work-related stress and physical discomfort⁴⁸. Consequently, individuals may experience lower engagement levels, negatively impacting overall productivity³⁴. If this situation remains unaddressed, it may lead to severe outcomes such as burnout syndrome and decreased job satisfaction, underscoring the urgent need for effective interventions in workplace settings⁴⁹.

Chronic pain is a widespread issue that affects over 50 million Americans, resulting in over \$70 billion annually in healthcare costs and lost productivity³⁴. Studies indicate a strong connection between feelings of helplessness and heightened disability in chronic pain patients³⁴. In 2018, chronic pain led to an estimated \$139 billion in expenses in Australia, primarily due to reduced quality of life and productivity losses (see Figure 14)⁵⁰. Mental illness and suicide have substantial costs on the Australian economy, reaching up to \$70 million annually, and an additional significant indirect cost of \$150 billion per year due to compromised health and reduced life expectancy for those affected by mental illness⁵¹.

Conversely, the McKinsey Health Institution reports that enhancing mental health and well-being presents a potential global economic opportunity ranging from \$3.7 trillion to \$11.7 trillion⁵². In Australia, Mental Health Australia and KPMG estimated \$90 million in savings when promoting early intervention and preventative plans⁵³. This highlights the potential return on investment for organisations to prioritise mental health initiatives and early intervention plans.



Figure 14: Chronic Pain in Australia



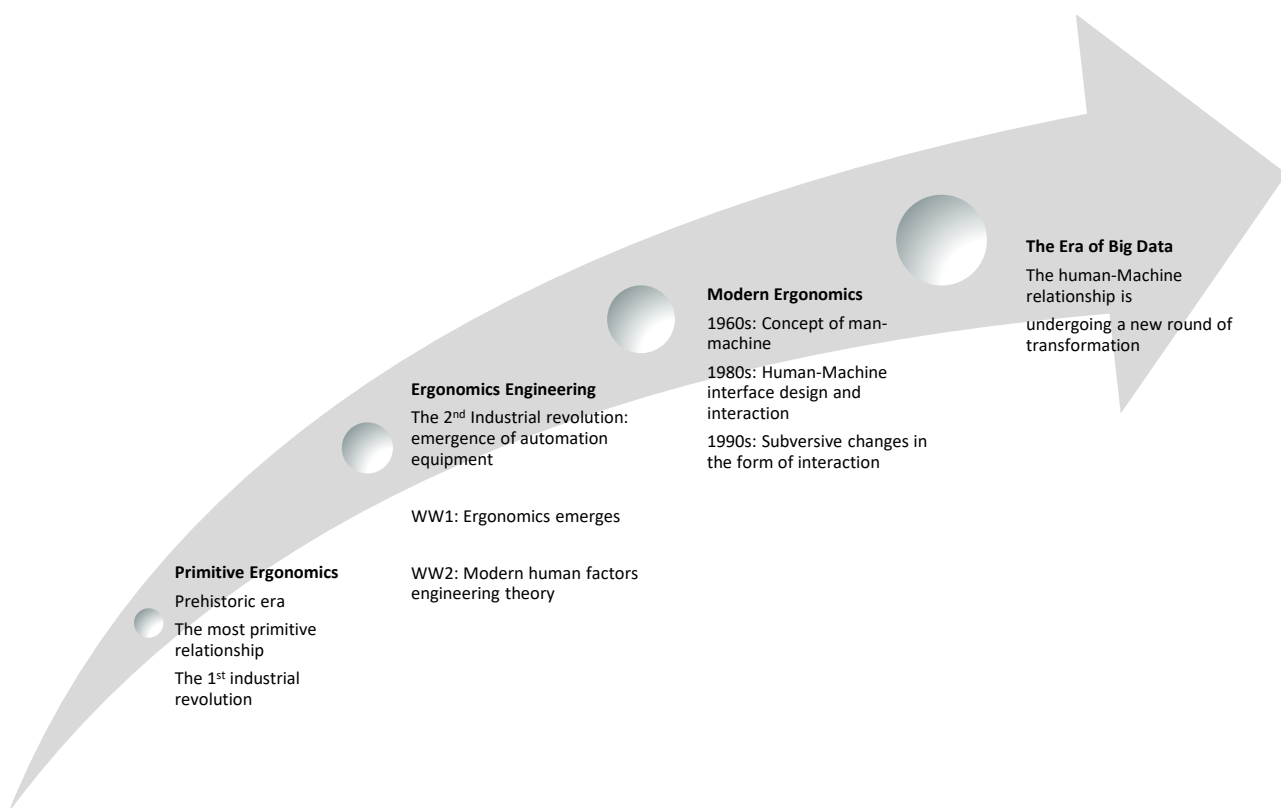
Adapted from ⁵⁰: <https://www.aihw.gov.au/reports/chronic-disease/chronic-pain-in-australia/summary>



Why Traditional Ergonomics and Wellness Programs Fall Short?

Understanding human interactions within complex systems is essential for developing practical safety ergonomics. This field has evolved through three key phases: early Ergonomics, which focused on primitive tool usage for survival; Ergonomics Engineering, which emerged post-Industrial Revolution to enhance efficiency through mechanisation; and Contemporary Safety Ergonomics, which shifted after World War II to prioritise designs that better align with human requirements (see Figure 15) ⁵⁴. The introduction of technologies such as intelligent human-computer interaction, biometric identification, and advanced machine sensing has significantly advanced safety ergonomics, leaving traditional definitions outdated ⁵⁴. However, that is not the whole picture.

Figure 15: History of Safety Ergonomics



Adapted from ⁵⁴: Dong, L. & Jiachuang, W.

“Safety ergonomics is the use of knowledge in physiology, psychology, environmental science, artificial intelligence, and other disciplines, with the goal of safety and comfort, taking ergonomics as a condition, making humans, machines, and the environment coordinate with each other to meet people's growing needs for a better life and working environment, so as to achieve safety conditions.”

Dong, L. & Jiachuang, W.



Limitations in traditional ergonomics protocols

Despite advancements, MSDs have multiple contributing factors, with psychosocial hazards playing a significant role ⁵⁵. Many existing programs inadequately address the interplay between these factors, leading to insufficient risk assessments and ineffective management tools ⁵⁵. Current tools often require specialised knowledge, creating barriers for health and safety teams ⁵⁵. A systematic review of 547 studies identified 83 assessment tools for physical and psychosocial hazards in the workplace; however, only 26 of these were accessible to practitioners, and just three effectively encompassed both dimensions throughout the entire risk management process to prevent MSDs ⁵⁶.

Moreover, observational methods are typically limited to brief timeframes, raising concerns about validity and reliability and overlooking other organisational factors that may exacerbate hazards ⁵⁶. Therefore, the effective participation of employees is crucial for assessing hazards, necessitating user-friendly tools that can be seamlessly integrated into existing management systems ⁵⁶. Comprehensive tools could also enhance attendance rates and employee engagement in ergonomics training, shifting the focus towards proactive prevention rather than reactive treatment ⁵⁷. Aligning interventions with employees' needs and preferences significantly enhances their impact, underscoring the importance of a holistic

approach to addressing psychological and physical risks ⁵⁸.

While traditional ergonomics and wellness programs strive to enhance employee health and comfort, there is an opportunity to expand these initiatives to address the unique challenges of computer-based work environments better ⁵⁹. The limited focus often results in a one-size-fits-all approach that overlooks the diverse range of individual body types, work styles, and workspace variations that employees encounter daily ^{60, 61}. For instance, factors such as the absence of designated work areas (e.g., a home office), inadequate ergonomic setups, potential disruptions from other household members, gender disparities in break frequency (e.g., women working longer hours and taking fewer breaks than men) ⁶² and build- and stature-related gender parameters (e.g., body weight, body fat, and hip size) must be considered ⁶³. Similarly, traditional ergonomics checklists primarily focus on physical workstation setups, neglecting critical elements like noise, lighting, air temperature, and air quality, all of which significantly impact worker comfort and productivity. These checklists also fail to acknowledge positive work behaviours that foster a supportive work environment ⁶⁴. Hence, it is essential to develop comprehensive and accessible ergonomics tools that address physical and psychosocial factors while actively involving employees.

Gaps in current wellness programs and training for computer users

The limitations of conventional wellness programs are even more pronounced. Typically centred on health issues like smoking cessation, diet, and financial planning ⁶⁵, they frequently lack the targeted health content necessary for computer work. This oversight results in inadequate needs analysis, ineffective delivery methods, and insufficient follow-up ^{66, 67}. Consequently, this undermines the holistic approach essential for effective employee wellness and task-specific training in injury prevention ⁶⁸, hinders the effectiveness of health protection and promotion programs, and ultimately affects optimal resource utilisation ⁶⁷.

The Global Wellness Institute (GWI) defines the workplace wellness market as “employer expenditures on programs, services, activities, and equipment aimed at improving their employees’ health and wellness.” It emphasises that the COVID-19 pandemic has shifted perceptions of workplaces towards more supportive environments, prioritising physical and psychological safety ⁶⁹. This transformation has moved the focus from traditional well-being initiatives, such as food bars and social activities, to addressing more pressing needs like improved lighting, fresh air, and a



supportive work environment ⁶⁹. However, while many organisations recognise the importance of workplace wellness, only 10.2% have integrated their wellness programs into a comprehensive health strategy ⁶⁹ (see Figure 16). The limited adoption of workplace wellness benefits means that only a small portion of employees in large global companies and knowledge-based industries, particularly in affluent areas, can access them ⁶⁹. Thus, many employees do not receive the necessary support and training for proper practices and effective management of mental health ⁶⁹. This underscores misconceptions about individual responsibility and the belief in flawless systems, often leading to rigid quality improvement strategies that ignore unique workplace challenges ⁶⁶.

An integrated approach that combines ergonomics and psychosocial hazard assessments with health and wellness programs is essential for creating environments that genuinely support the workforce and enhance workplace safety and employee well-being ⁶⁷. This approach includes targeted training, strong management commitment, active worker involvement, and effective communication, all crucial for the success of ergonomics and wellness initiatives ⁶⁸.

Figure 16: Access to Workplace Wellness, 2017, 2019, 2020

	Percent of employed workers in each region who have access to workplace wellness programs/services		
	2017*	2019	2020
Europe	25.4%	27.3%	28.1%
North America	49.4%	47.7%	47.4%
Asia-Pacific	4.7%	4.9%	5.3%
Middle East-North Africa	8.9%	8.9%	9.1%
Latin America-Caribbean	5.9%	6.0%	6.2%
Sub-Saharan Africa	1.5%	1.5%	1.4%
WORLD	9.7%	9.9%	10.2%

* 2017 figures for this sector have been revised since GWI released the previous version of the Wellness Economy Monitor, due to data revisions and updates made by key underlying data sources such as the ILO.

Source: Global Wellness Institute, based on labor market, employment, and workplace wellness data from the International Labour Organization, OECD, Eurostat, Kaiser Family Foundation, HERO, and other sources.

Adapted from ⁶⁹: Global Wellness Institute.

“It does take a village, or a neighbourhood and community, to provide healthy living conditions, access to nature, social and recreational spaces, and even childcare. Thus, some business leaders are re-examining their relationships with the community and are seeking ways to collaborate to support the wellness needs of their workers (and their workers’ families) outside of the workplace.”-

P.57. Global Wellness Institute ⁶⁹.



The Case for Updating Workplace Health and Training Programs

The Need for a Holistic Approach to Workplace Health

Global Business Process Outsourcing (BPO) and Contact Centre (CX) services are experiencing significant growth as organisations recognise their potential to enhance client experiences, promote work flexibility, and leverage diverse communication channels ^(70; see Figure 17). While BPO typically involves back-office functions that do not interact directly with customers, CX focuses on customer-facing roles and is increasingly supported by remote and hybrid work models ^{71, 72}. This shift transforms traditional contact centres into advanced omnichannel hubs for customer interaction. Consequently, the role of customer service agents is evolving into knowledge workers who deliver personalised and efficient customer experiences while leveraging their expertise to tackle complex inquiries ⁷² (hence the term “knowledge workers”). However, it is important to recognise that CX roles often entail greater psychological pressures than their BPO counterparts. As hybrid work arrangements become more prevalent and the number of individuals engaged in computer-based tasks rises, the associated risks increase, highlighting the need for enhanced workplace health and training programs to address these challenges effectively ⁷³.

Employees in this work environment encounter substantial psychosocial stressors and high job demands ⁷⁴. Ongoing client interactions, tight deadlines, and the commitment to exceptional service could lead to chronic stress and burnout ⁷⁵. This may cause a decline in motivation for self-care and significantly heightens the risk of physical injuries ⁷⁵. Additionally, prolonged periods of sitting and extensive computer use contribute to this psychological strain, creating a compelling link between mental and physical health risks ⁷⁴. Knowledge workers frequently experience tension in their shoulders and necks, intensified by poor posture and insufficient ergonomic support ⁷⁶. This cycle highlights the urgent need for a comprehensive workplace health approach addressing psychosocial and physical risks ⁵⁸.

Benefits of Integrating Personalised Training into Daily Work Routines

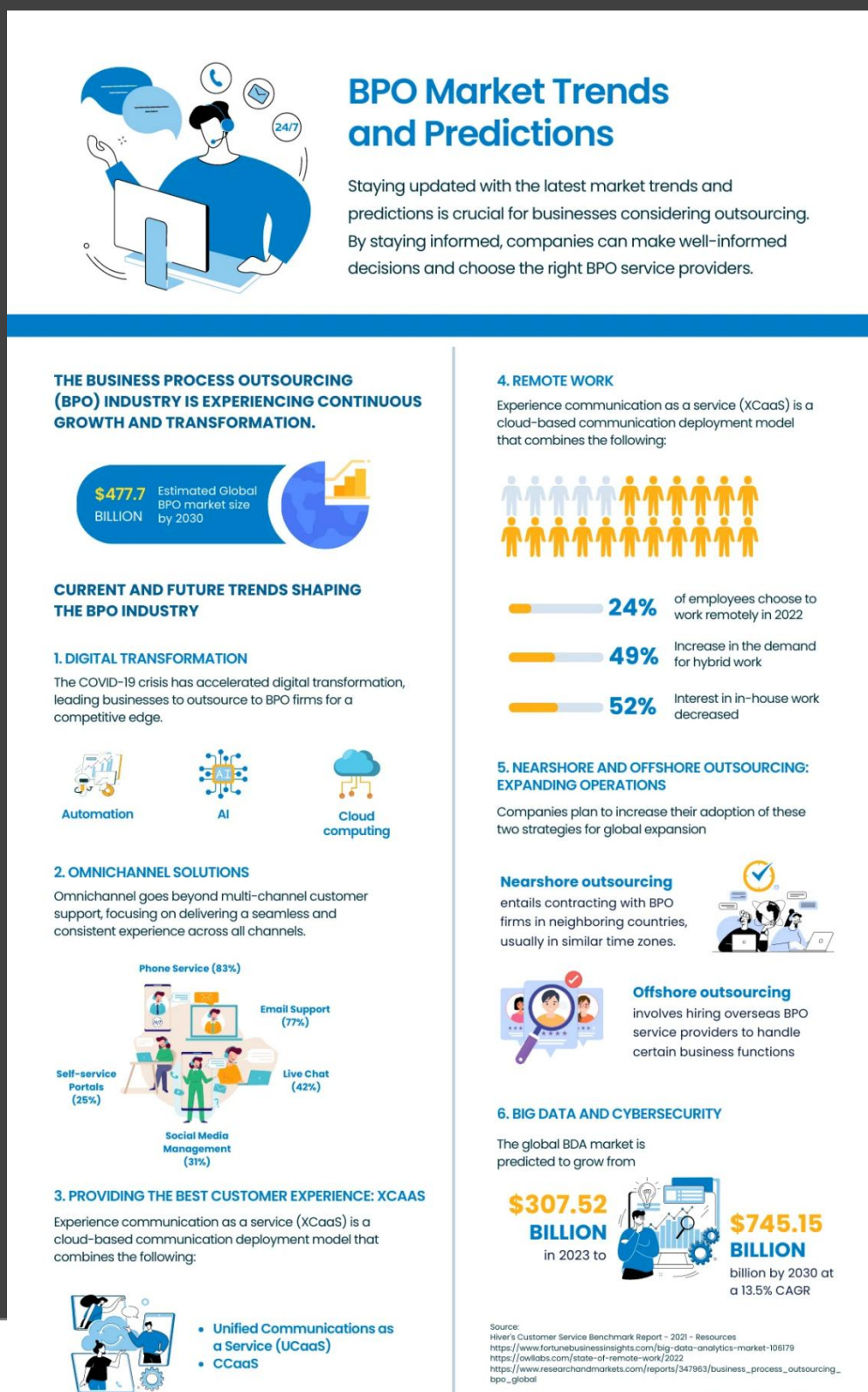
To achieve a better balance between job demands and resources, it is essential to incorporate training programs focusing on mental resilience, stress management techniques, ergonomics, self-care strategies, and physical wellness ^{74, 77}. Expanding training will empower knowledge workers to overcome their unique challenges ⁷⁷. Tailoring programs to the specific needs of different industries and businesses allows the development of practical skills that enable individuals to manage their health proactively ⁷⁷.

Personalised ergonomics training can educate employees about proper posture, workstation setup, and movement patterns that minimise strain, which is particularly relevant for roles that involve extensive computer use ⁷⁷. Customised interventions can significantly reduce the incidence of RSIs and MSDs compared to those who received standard training ⁷⁸. In addition, incorporating regular training sessions into the work routine can create a health and safety culture within organisations. GWI report highlights that companies prioritising employee well-being through ongoing training and support report higher retention rates and improved employee morale ⁶⁹. This is especially critical in sectors like BPO and CX, where high turnover rates can significantly impact operational efficiency ^{79, 80}.



This holistic approach equips employees with the tools to reduce the risk of burnout and injury, improve comfort and job satisfaction, and foster a more resilient and engaged workforce⁶⁹. Ultimately, this leads to enhanced client experiences and overall business outcomes.

Figure 17: Transformation in the BPO Industry



Adapted from ⁷⁰: <https://unity-connect.com/our-resources/bpo-learning-center/bpo-trends-and-predictions/>



Training to Build Practical Self-Care Competencies

Skills to Manage Musculoskeletal and Eye Discomfort

Managing musculoskeletal pain presents significant challenges that highlight the flaws in current treatment approaches. There is an alarming over-reliance on imaging techniques, often performed without specific warning signs ⁸¹. The excessive prescription of opioids is concerning due to their questionable value and links to poorer outcomes in LBP, necessitating careful management during the opioid crisis ⁸¹. Additionally, rising surgical interventions often yield no better results than exercise-based treatments and misclassifying conditions like fibromyalgia, which encompasses psychological, cognitive, and physical symptoms, making effective treatment even more complex ⁸¹. Lastly, there is a lack of proper education for patients with lower back pain in primary care, which reflects inadequate management of musculoskeletal issues ⁸¹.

As for DES, management requires a systematic approach to address various underlying issues, including dry eye syndrome, uncorrected vision problems, suboptimal ergonomic practices, and Asthenopia, with typical symptoms such as fatigue, pain, and blurred vision ⁸². While invasive interventions may be viable options, they may pose risks and not adequately resolve the underlying causes ⁸². Moreover, while there is considerable research on DES, improving public access to credible and reliable information could empower individuals ⁸². The call for standard prevention and management strategies started in workplaces, highlighting the need for proactive measures to address DES and reduce reliance on invasive treatments.

A preventative approach is essential to address MDS and DES challenges, empowering computer-based users—such as knowledge workers in BPOs, CXs, and office environments- to develop skills to manage their discomfort effectively ^{81, 82}. By empowering employees and emphasising education and self-management strategies, healthcare providers can achieve better long-term outcomes, while organisations can reduce claims associated with WMDS, RIS, and DES.

Development of Somatic Awareness and preventative techniques

Developing somatic awareness—an understanding of one's body and sensations—is essential for preventing and managing discomfort among computer users. Poor somatic awareness is linked to various health issues, including depression, anxiety, and chronic pain ⁸³. Somatic awareness training encourages individuals to tune into their posture, tension levels, and bodily sensations ⁸⁴. It fosters a deep reflection on one's attitudes, practices, culture, and tasks ⁸⁴. By implementing this practice, employees can identify discomfort early, enabling them to take timely measures to prevent injuries and enhance their understanding of how to address symptoms or illnesses. This approach is achieved through improved self-awareness and helps decrease pain perception ^{85, 86}. Employees gain control over their health, benefiting the organisation and society ⁸⁷.



“The basis of all our forms of understanding is given to us by our body’s interactions with the world. Somatic understanding precedes all others, and persists while our symbolic forms of understanding develop, and it shapes those forms of understanding in profound and subtle ways. Understanding human cognition, then, requires our careful attentiveness to the body that is their foundation. We have attended to the body’s role in our cultural lives and especially in education far too little.” -- Kieran Egan ⁸⁸

Preventive strategies should be the foundation of any self-care training program for computer users. However, the workplace context is an essential factor in implementing effective interventions. Therefore, prior evaluation and identification of specific methods are crucial ⁸⁹.

Some effective preventative programs include workplace physical exercises, which significantly alleviate MSDs and show more advantages than home-based routines ⁸⁹. Participatory ergonomics (PE) engages employees in improving health and productivity, which includes teaching proper workstation adjustments, typing techniques, and maintaining healthy posture while seated ⁸⁴. Regular activity breaks are vital for musculoskeletal well-being and help prevent the onset of RSI ⁹⁰. This may involve employees performing stretching or simple movements to alleviate tension and enhance circulation ⁹⁰. It also emphasises the organisation's role in promoting a culture of self-care and integrating preventative programs aimed at improving health, safety, and productivity ⁹¹. Moreover, physical exercises can reduce the need for pain relief medication for lower back pain, although their effectiveness for neck pain may vary due to inappropriate exercise types ⁸⁹.

In addition, to effectively manage DES, addressing any existing vision problems, such as near-sightedness or presbyopia, can impact how comfortably one sees screens ⁹². Interestingly, a slight misalignment between the eyes might relieve some discomfort caused by prolonged screen use, indicating that perfect alignment is not always necessary for comfortable vision ⁹². Simple blinking exercises can help restore a natural blinking pattern, essential for eye comfort ⁹². When dryness becomes an issue, lubricating eye drops can provide much-needed relief, while opting for more comfortable contact lenses is particularly beneficial during long hours or in challenging conditions ⁹². Likewise, coloured filters, especially those designed to block blue light, can enhance overall comfort when engaging with digital devices ⁹².

However, prevention is key; creating an ergonomic work environment and adopting healthy habits for device usage can make a significant difference ⁹². Regular eye exams are also vital, allowing for the early detection of potential visual problems ⁹². This is especially important for individuals who spend extensive time on computers or rely on contact lenses, as they are at a higher risk of experiencing eye strain ⁹². Additionally, training should include education on eye care practices. DES can be managed through techniques like the 20-20-20 rule: every 20 minutes, look at something 20 feet away (≈ 6.096 meters) for at least 20 seconds ²⁸. Incorporating this practice into training can help employees develop habits that reduce eye fatigue and discomfort.

As such, investing in preventative programs for managing musculoskeletal discomfort and DES enhances employee well-being, leading to significant long-term cost savings for organisations. By fostering a healthier workforce, companies can reduce absenteeism, improve productivity, and create a more positive work environment.



Empowering Leaders to Support Training and Workplace Wellbeing

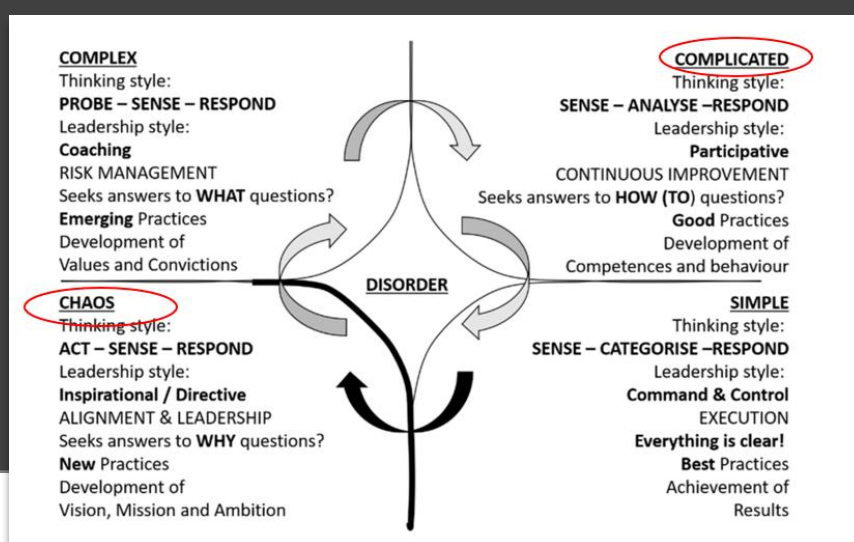
How Leadership Involvement Drives the Success of Training Programs?

BPOs, CXs, and organisations employing knowledge workers can enhance employee well-being by actively recognising and addressing significant risks, including physical and psychosocial hazards such as RSI, high stress levels, and mental strain^{58, 74, 75}. Strong leadership is crucial in tackling these challenges, and a decisive commitment to allocating the necessary resources—time, budget, and personnel—to safeguard employee well-being and enhance productivity⁹³. This includes fostering a culture of environmental and psychological safety, ensuring health initiatives are boldly supported and championed at every level, establishing a clear vision and setting the tone for participation^{94, 95}.

However, knowledge workers' complex and chaotic work environment introduces additional challenges for leaders. Leadership can benefit from adopting two effective leadership styles to support workplace health and safety (WHS) and employee well-being, as illustrated in Figure 18^(94; inspired by 97). These styles can help reinforce protective behaviours in a hybrid work environment, manage the balance of work and personal life, cope with extended working hours at home, address constant stress, and handle frequent client interactions⁹⁶.

According to the Cynefin framework, participative leadership—characterised by continuous improvement and a sense-analyse-respond approach—is essential for developing the skills and behaviours expected from employees⁹⁴. This leadership style is particularly beneficial for shifting mindsets regarding safety and the need for wellness and ergonomics programs. Conversely, in chaotic environments, where stress levels are often elevated, an inspirational and directive leadership style is equally important^{94, 96}. This approach encourages employees to reflect deeply on the significance of safety programs, fostering an embrace of new practices and adaptability⁹⁴. Effective communication is crucial in both styles, as it underpins informed decision-making and lays the groundwork for effective risk management.

Figure 18: Cynefin Framework

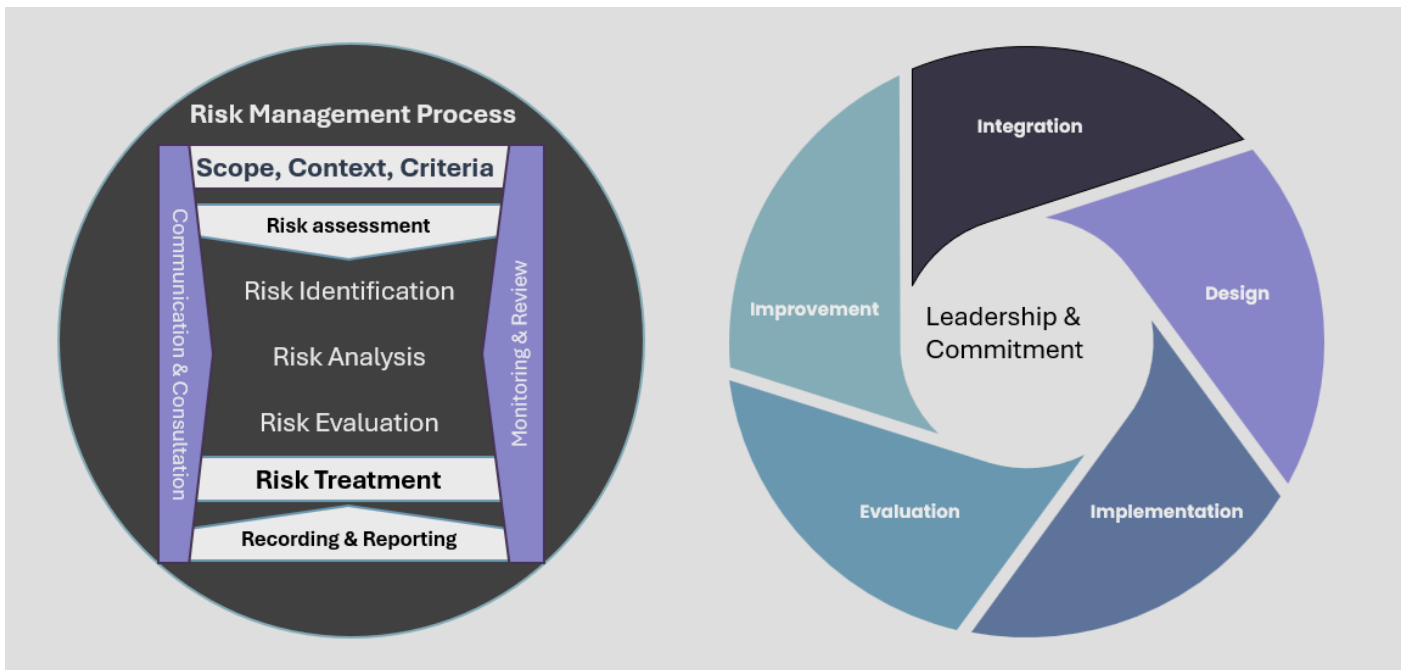


Adapted from⁹⁴: Blokland, P. & Reniers, G.



Indeed, effective risk management, as outlined in the ISO 31000 framework (see Figure 19), relies on leadership involvement and employee consultation, which align with the two leadership styles ⁹⁴. Leaders can tackle risks through comprehensive training and engaging employees in risk assessments, cultivating a culture of safety and inclusivity. This engagement allows leaders to collect valuable employee input to enhance training programs, encouraging them to take ownership of their health and safety ⁹⁴. Additionally, leaders can define the scope and objectives of training initiatives to align with the organisation’s mission and values ⁹⁴. Understanding the risks of prolonged screen use in computer-based environments informs targeted training content. Leaders must communicate how wellness initiatives contribute to overall organisational success, encouraging employees to participate in training programs ⁹⁴.

Figure 19: ISO31000 Process & Framework (2018)

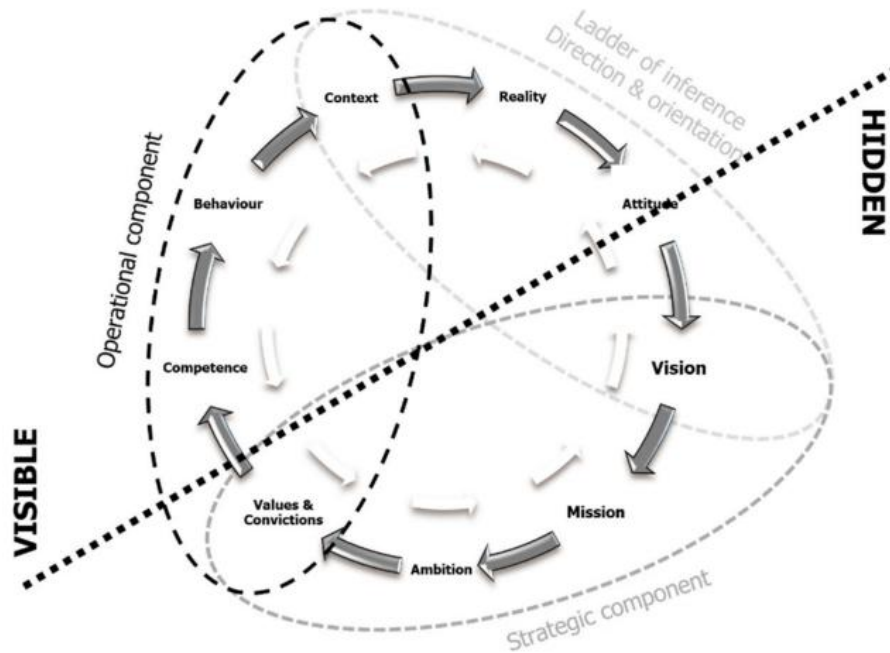


Adapted from ⁹⁴ : Blokland, P. & Reniers, G.

This framework powerfully supports the holistic approach championed throughout this paper. It mitigates risks at all physical and psychological levels while engaging all stakeholders, from employees to managers and leadership. By fostering a robust top-down and bottom-up model, we create a shared vision for employee safety that aligns seamlessly with the organisation’s values and beliefs ⁹⁴. This clarity enhances our mission and ambitions, establishes meaningful objectives, and drives collective accountability for health and safety, all in pursuit of continuous improvement. The effectiveness of this model is effectively illustrated in Blokland & Reniers’ “Dynamic Culture Alignment Model—Flywheel of Alignment” (see Figure 20, ⁹⁴).



Figure 20: Dynamic culture alignment model- flywheel of alignment



Adapted from ⁹⁴ : Blokland, P. & Reniers, G.

Role of Managers in Fostering a Health-Conscious Work Culture

With leadership support and commitment in place, the transformation of the misconception that computer-based work in clerical, contact centre, and similar knowledge work environments are risk-free can begin. This shift will start with top leaders and flow down to mid-level leaders, managers, and employees. Empowering leaders and managers will drive a necessary mindset change and implement impactful training initiatives that address potential risks ⁹⁸. The message is clear: healthy practices in the workplace are exemplified and promoted, while accessible wellness initiatives empower employees to make informed, healthier choices ⁶⁹.

Organisations can use change management frameworks to initiate and enforce the change. One effective model is the Prosci ADKAR model, which stands for Awareness, Desire, Knowledge, Ability, and Reinforcement (see Figure 21) ⁹⁹. Leaders and managers must first develop **A**wareness among themselves and subsequently within their teams regarding the importance of training and health programs. They need to understand the rationale behind these initiatives, explore potential improvements, and consider the consequences of not implementing necessary changes ⁹⁹. This includes recognising environmental, organisational, and task-based risks that could harm employee health and well-being, potentially leading to absenteeism and decreased productivity and identifying risks related to non-compliance, finances, and the organisation's reputation ^{11,14,18,19,21,25-28}.

Once awareness is established, the focus shifts to **D**esire ⁹⁹. Leaders and managers must cultivate a genuine interest in supporting health, safety, and wellness initiatives by emphasising their positive impacts, such as improved employee morale, reduced healthcare costs, and enhanced team performance ⁹³. Encouraging leaders and managers to share personal experiences related to workplace wellness can also foster a sense of commitment ¹⁰⁰. Expressing their enthusiasm for these initiatives sets a powerful example for employees, motivating them to engage ¹⁰⁰. Once desire is established, the next step is **K**nowledge ⁹⁹. Leaders and managers need comprehensive training in ergonomics, safe practices in computer-based environments, and the details of available wellness programs ⁹⁹. This training should equip them with the best practices for evaluating ergonomics and implementing preventative measures relevant to their workplace ⁹⁹. Additionally, they should learn effective communication strategies to



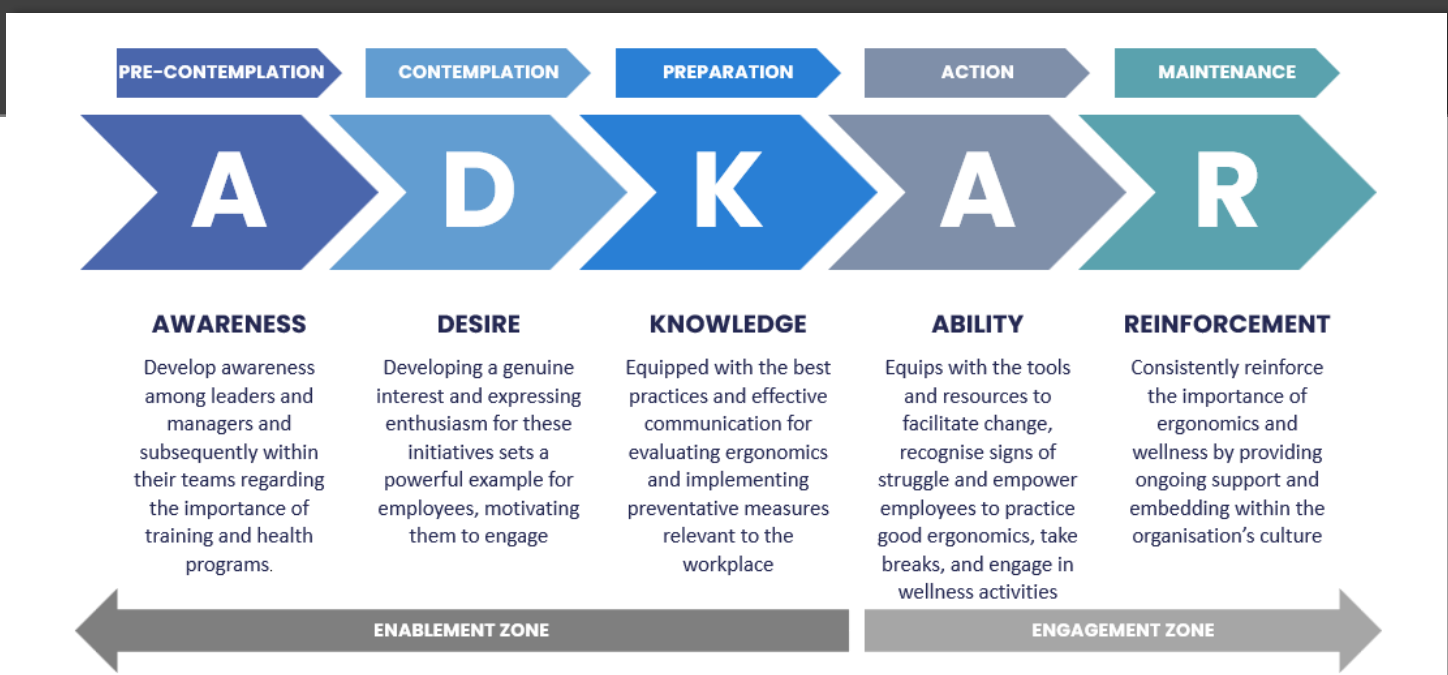
convey and advocate the importance of these topics to their teams ⁹⁹. Mindfulness training can help leaders and managers build strong communication and openness with their employees to foster ownership, reduce pushbacks and increase buy-in ^{87, 93}.

Individual motivation plays a crucial role in successfully implementing these programs, while organisational motivation contributes to the success of process improvement and implementation ¹⁰¹. Leaders and managers must also understand the intrinsic and extrinsic motivators that drive employee engagement ¹⁰¹. Intrinsic motivation can be fostered by linking wellness initiatives to employees' values and goals, helping them see the benefits of participating in training programs ¹⁰¹. The 'self-determination theory' of integrating new behaviours with one's values drives a long-term intrinsic motivation type ¹⁰². For instance, leaders and managers can highlight how ergonomics training can enhance individual health and improve team performance and organisational success. Extrinsic motivators, such as recognition and rewards for participation in wellness programs, can also drive engagement ¹⁰¹. Establishing incentive programs praising employee involvement in health initiatives—such as wellness challenges or recognition for maintaining good ergonomic practices—can significantly boost morale and participation rates ¹⁰¹.

The **Ability** component equips leaders and managers with the tools and resources to facilitate change ⁹⁹. This includes access to ergonomic assessments, wellness program materials, and guidelines for promoting safe computer use. Moreover, managers should be trained in general signs and symptoms of WMSDs, particularly computer work RSIs. That will enable them to recognise when team members struggle with discomfort. This proactive approach allows for timely interventions, further reducing the risk of chronic health issues and fostering a culture of care within the workplace ^{93, 94}. Leaders and managers should also be encouraged to create an environment that empowers employees to practice good ergonomics, take breaks, and engage in wellness activities ⁹³. Employees can drive meaningful change within their teams by fostering an atmosphere where they feel supported in adopting healthy practices ¹⁰³.

Finally, **Reinforcement** is crucial for sustaining momentum ⁹⁹. After implementing training initiatives, it is essential to recognise and celebrate successes ^{99, 101}. Managers should consistently reinforce the importance of building positive ergonomics and wellness habits by acknowledging employees' efforts and providing ongoing support. This might involve regular check-ins, sharing success stories, and offering continued training or resources ⁹⁹. By embedding reinforcement into the culture, leaders and managers can help ensure that wellness practices become a lasting part of the workplace, fostering a healthier, more productive workforce ⁹⁹.

Figure 21: ADKAR Framework for Organisational Change



Leaders and managers can use the Six C's model to improve employee interaction and facilitate this conversation⁹⁵. They should: 1) demonstrate **Compassion** by acknowledging employees' concerns about ergonomics and wellness, 2) ensure **Clarity** by clearly explaining the benefits of these training programs, and 3) maintain **Conciseness** by presenting information in an easily digestible format⁹⁵. They should 4) foster a **Connection** to emotionally engage their teams around the importance of health, 5) exhibit **Conviction** by showing commitment to enhancing workplace safety, and 6) display **Courage** to lead confidently through any uncertainties related to implementing these initiatives⁹⁵. Applying these principles ensures that employees are well-informed and motivated to participate in ergonomic, health, safety and wellness training programs⁹⁵.

Furthermore, managers' active participation alongside external advisors can significantly enrich workplace health and training initiatives¹⁰⁴. By collaborating with specialists, managers gain valuable insights into the latest trends and best practices, ensuring their programs remain relevant and effective¹⁰⁵. Engaging in workshops and training sessions allows managers to enhance their skills, empowering them to implement health and wellness initiatives confidently and effectively¹⁰⁵.

Equally important is a thorough understanding of the legal landscape surrounding workplace health and safety. Compliance with regulations set forth by occupational health and safety administrations is a legal obligation and a commitment to creating a safe and supportive environment for all employees¹⁰⁶. Leaders and managers must familiarise themselves with relevant legislation and integrate these guidelines into their training programs. This involves conducting regular risk assessments, implementing preventative measures, and ensuring employees are informed about their rights and responsibilities regarding workplace safety¹⁰⁶. Establishing clear compliance protocols can help organisations mitigate non-compliance risks, including legal penalties and reputational damage.

Effective change management frameworks and robust communication tools are essential for cultivating a health-conscious work culture. Leaders and managers are crucial in promoting wellness initiatives by raising awareness of health risks, encouraging employee engagement, and providing necessary resources. Collaborating with external advisors, adhering to safety regulations, and aligning with organisational strategies further strengthen these efforts, driving meaningful change and enhancing overall workplace well-being.



The Business Case: Reducing Hidden Costs and Enhancing Productivity

Absenteeism, injury claims, turnover and other costs

The direct and indirect financial implications of the risks associated with extended computer-based work environments, such as [musculoskeletal disorders \(MSDs\)](#), [Digital eye strain \(DES\)](#), and [mental health challenges](#), are substantial. The financial toll of vision loss in Australia was approximately \$9.85 billion in 2004 ³². As noted, MSDs refer to injuries or diseases affecting the musculoskeletal system. At the same time, Work-related Musculoskeletal Disorders (WMSDs) are a subset specifically linked to occupational factors, such as repetitive tasks and poor ergonomics. The economic impact of WMSDs was \$24 billion in 2012-2013, with health system expenditures for MSDs at \$14.7 billion in 2020-2021 ¹¹. In chronic pain, healthcare costs and lost productivity amount to \$139 billion in Australia ³⁴. Additionally, mental illness and suicide costs in Australia reach \$70 million annually, with indirect costs of \$150 billion related to compromised health and reduced life expectancy ⁴⁴.

The expenses referenced are generally understood; however, a recent study presents alarming predictions indicating a potential increase of four to six times in cases of Alzheimer's disease and related dementias (ADRD) by the year 2060 ¹⁰⁷. This increase is primarily attributed to excessive screen time impacting brain structures, cognitive health, and behaviour—particularly among adolescents and Generation Z ¹⁰⁷. Such trends raise alarms regarding the cognitive well-being of future generations and the pressure on healthcare systems ¹⁰⁷. The worldwide economic burden of ADRD is anticipated to double from \$1 trillion to \$2 trillion (USD) between 2018 and 2030, underscoring significant public health consequences ¹⁰⁸. Organisations can improve work design to foster more stimulating and engaging work environments to mitigate potential cognitive decline among workers. This can be achieved by integrating specialisation, task variety, and autonomy to enhance decision-making and job crafting while encouraging physical activity and cognitive resources ⁷⁴.

Promoting and enhancing early intervention and preventive measures for mental health can significantly alleviate chronic health conditions such as anxiety, depression, stress, and anger. These issues may arise from chronic pain or be triggered by various work-related factors and external stressors. Adopting this approach presents a potential global economic opportunity valued between \$3.7 trillion and \$11.7 trillion ⁵², with projected savings of \$90 million in Australia ⁵³.

To fully leverage these benefits, organisations—especially in sectors like business process outsourcing (BPO), contact centres (CX), and knowledge work roles such as clerical and office staff—must confront various hidden costs associated with work-related health issues. These costs include, amongst others, presenteeism, turnover-related administrative expenses, loss of institutional knowledge, training new staff, insurance premiums, employee assistance programs (EAPs), and workers' compensation.

The following four key elements are highlighted due to their frequently abstract nature and the psychological factors they involve, which are not always accounted for in traditional organisational assessments. While predictable costs such as EAPs and insurance premiums are generally managed by external vendors, addressing the challenges associated with presenteeism, mental health support, and turnover necessitates a strategic and cultural shift within organisations. Understanding these factors is critical for optimising workplace health and safety (WHS), enhancing overall organisational efficiency, and addressing the broader implications for employee well-being.



“Unlike absenteeism, presenteeism isn’t always apparent. You know when someone doesn’t show up for work, but you often can’t tell when—or how much—illness or a medical condition hinders someone’s performance”. Paul Hemp ¹⁰⁹

Presenteeism and Its Costs

As highlighted before, [work-related musculoskeletal \(WMDS\) costs](#) include presenteeism ^{18,19}. Presenteeism occurs when employees are physically present at work but unable to perform at full capacity due to health issues, often stemming from chronic health issues like musculoskeletal pain, allergies, migraines, anxiety, and depression ^{109, 110}. This phenomenon can significantly underestimate its impact, relying heavily on self-reported data ¹⁰⁹. Research shows that presenteeism can cost organisations two to three times more than absenteeism ¹⁰⁹, highlighting its substantial financial implications, particularly in high-demand environments such as CX settings ¹¹¹, which accounts for about 60% of lost productivity ^{112, 113}.

The hybrid work model introduces additional complexities for employees, particularly concerning increased data tracking for productivity monitoring ¹¹⁴. This intensified surveillance can foster a culture of presenteeism, where employees feel obliged to remain constantly available ¹¹⁵. Such conditions contribute to an environment where individuals work while unwell ^{116, 117}, adversely affecting overall well-being and leading to heightened anxiety and job dissatisfaction ^{118, 119}. Employees with existing chronic health issues experience higher presenteeism rates and increased emotional exhaustion due to perceived oversight ^{120, 121}, potentially culminating in burnout ¹¹⁵. The effects of an employee's health challenges extend beyond the individual, significantly influencing team dynamics and overall morale ^{109, 122}.

Addressing presenteeism is crucial for individual health and team dynamics. When a colleague faces health issues, others often experience increased workloads, leading to heightened stress and decreased engagement. This cycle can result in burnout, compromising client service and diminishing overall team productivity ^{109, 123}. Therefore, fostering a supportive work environment that addresses individual health challenges is vital for enhancing employee engagement and productivity ¹⁰⁹.



“High proportions of persons with upper back/neck pain and fatigue/slightly depressed are among those with high sickness presenteeism.”

Aronsson et al. ¹²⁴

The Need for Mental Health Support

The ACXPA 2024 Australian Contact Centre Industry Best Practice Report highlights the increasing pressures agents face due to performance metrics. However, advancements such as an Average Speed of Answer of 115 seconds and a decreased Abandonment Rate of 8% reflect employee dedication; these high demands significantly strain workers ¹¹¹. This reinforces the urgent necessity for comprehensive mental health support within WHS initiatives. With 89% of organisations now measuring employee engagement—up from 79% last year—it is clear that companies recognise the vital connection between a supportive work environment and overall performance ¹¹¹. However, an average engagement score of 75% indicates a pressing need for enhanced WHS measures ¹¹¹.

Turnover Costs, attrition and Employee Engagement

Attrition refers to losing employees due to voluntary resignations, retirements, or other departures, excluding layoffs and not necessarily involving alternative employment. High attrition rates often indicate low morale and disengagement ¹²⁵. Over 19 million workers have left their jobs during the ‘Great Attrition/resignation’ since April 2021 ¹²⁵. Many organisations have responded with immediate solutions, such as salary increases, without addressing the root causes of employee dissatisfaction ¹²⁵. Workers increasingly seek meaningful connections, purpose, and recognition that play a role in empowerment and resilience when they face high job demands.

As of December 2023, Australia's average employee turnover rate was 14% ¹²⁶. About 25% of organisations had 20% or higher turnover rates, causing recruitment challenges, while roughly 30% reported rates below 5% ¹²⁶. In 2024, the average attrition rate for contact centres reached 27%, revealing ongoing challenges in talent retention ¹¹¹. The costs associated with turnover extend beyond recruitment; replacing an employee can cost approximately 1.5 times their annual salary ^{127, 128}. The ongoing cost-of-living crisis is significantly impacting the CX industry ¹¹¹. High job demand and insufficient resources—such as non-competitive wages—contribute to elevated turnover rates in this sector ¹¹¹. This situation underscores the urgent need for better compensation and more robust support systems to retain skilled talent effectively. High attrition inflates administrative expenses and increases the burden of training new staff ¹¹¹. Moreover, neglecting health concerns can severely impact team morale, lose experienced employees, diminish institutional knowledge, and ultimately harm a company's reputation and client trust ¹¹⁵.

The ACXPA report also indicates that managing absenteeism remains a significant challenge, with an average rate of 12.9%, notably higher than the national average of 6% ¹¹¹. These statistics emphasise organisations' need to invest in strategies that enhance employee retention and well-being.



Positive impact on employee engagement and productivity

Recognising these hidden costs lays the groundwork for exploring the positive effects of a healthy work environment on engagement and productivity ¹²⁸. This underscores the need to prioritise employee-focused ergonomics training, implement positive work behaviour programs, facilitate targeted physical conditioning, and promote mental health initiatives. These efforts aim to reduce physical and psychosocial hazards and their harmful effects.

Focusing on psychological and physical well-being and resilience training, including building self-care competencies, enables workers to manage their responsibilities more effectively, leading to higher service levels and reduced absenteeism and turnover. By implementing mental health support resources, conducting ergonomic assessments, and offering flexible working conditions, organisations can significantly enhance workplace attachment (aka, the sense of employee connection and commitment to the workplace), strengthened by the perceived care and dedication of the organisation toward employees' health ¹²⁹. That fosters collaboration, engagement, and morale and strengthens customer interactions, driving overall business success.

“At the heart of programs like these is the belief that healthy employees are an asset meriting investment.” Paul Hemp ¹⁰⁹



Conclusion: A Strategic Shift Towards a Healthier Workplace

The well-being of knowledge workers—especially in Business Process Outsourcing (BPO), Contact Centre (CX), and office environments—is currently facing urgent and critical challenges. Misconceptions about the safety of computer-based work often lead to neglecting the [severe health risks associated with prolonged screen time and sedentary behaviour](#). As reliance on [technology increases](#), neglecting employee health can lead to [chronic pain](#), long-term [health conditions associated with sedentary work](#), and [mental health issues](#). These challenges can significantly [compromise both individual and organisational performance](#), highlighting the physical impacts of work-related musculoskeletal disorders (WMSDs) and the broader mental health concerns connected to these factors.

To address these challenges, businesses must invest in [updated training programs](#) prioritising workplace health and safety tailored for these conditions. A [holistic approach](#) is essential, integrating ergonomics training to ensure [proper practices](#) are adopted by organisations and employees, thereby preventing musculoskeletal disorders (MSDs) and Digital Eye Strain (DES). Encouraging positive work behaviours, such as bodily awareness, movement breaks and good posture, alongside initiatives to mitigate psychosocial hazards, enhances mental health and reduces stress. Moreover, recognising [the impact of sedentary work and lifestyle](#), it is necessary to incorporate targeted physical conditioning initiatives that help employees stay fit for work (which is also a WHS obligation for employees), prevent injury, and speed recovery. This comprehensive approach empowers employees to [identify early signs of discomfort](#) and take preventive measures, crucial for effectively managing health risks.

[Leadership is focal in fostering a culture where employee health is valued](#). By [promoting effective injury and illness management and encouraging positive workplace norms](#), companies can enhance workplace attachment while [improving psychological safety, health outcomes and performance](#). Investing in employee health yields long-term benefits, including decreased absenteeism, [presenteeism](#), and [turnover rates](#), as well as lower injury claims and enhanced productivity. Moreover, focusing on employee health experiences enhances engagement and job satisfaction, fostering a culture of accountability and high performance.

The traditional hierarchy of control model serves as a solid foundation for risk prevention (see Figure 22 left) ¹³⁰. Building upon this foundation, the NIOSH Total Worker Health model enhances workplace health initiatives by integrating psychological well-being into a comprehensive process to promote behavioural change (see Figure 22 right) ¹³¹. This model begins with identifying and removing psychosocial risks, subsequently enhancing health through formulating and implementing improved policies and practices, reconfiguring the work environment to support safety and well-being, delivering training to employees on health and safety practices, and fostering opportunities for personal growth ¹³¹.

Our paper emphasises the importance of a holistic approach involving regulatory bodies, researchers, consultants, organisations, and employees in a collaborative top-down and bottom-up framework. To further emphasise the shared responsibility for employee health and safety, we propose the addition of a bidirectional arrow (See Figure 23), highlighting the collective commitment to fostering a healthier work environment.

Regulatory bodies have a significant opportunity to refine existing policies and standards by developing targeted training programs that address the WHS needs of staff in computer-based environments. Researchers play a critical role in this process by generating new knowledge and conducting case studies highlighting successful initiatives. These insights can be instrumental for regulatory bodies when updating policies and for external consultants, who bring specialised expertise that enables organisations to benchmark their practices against industry standards.

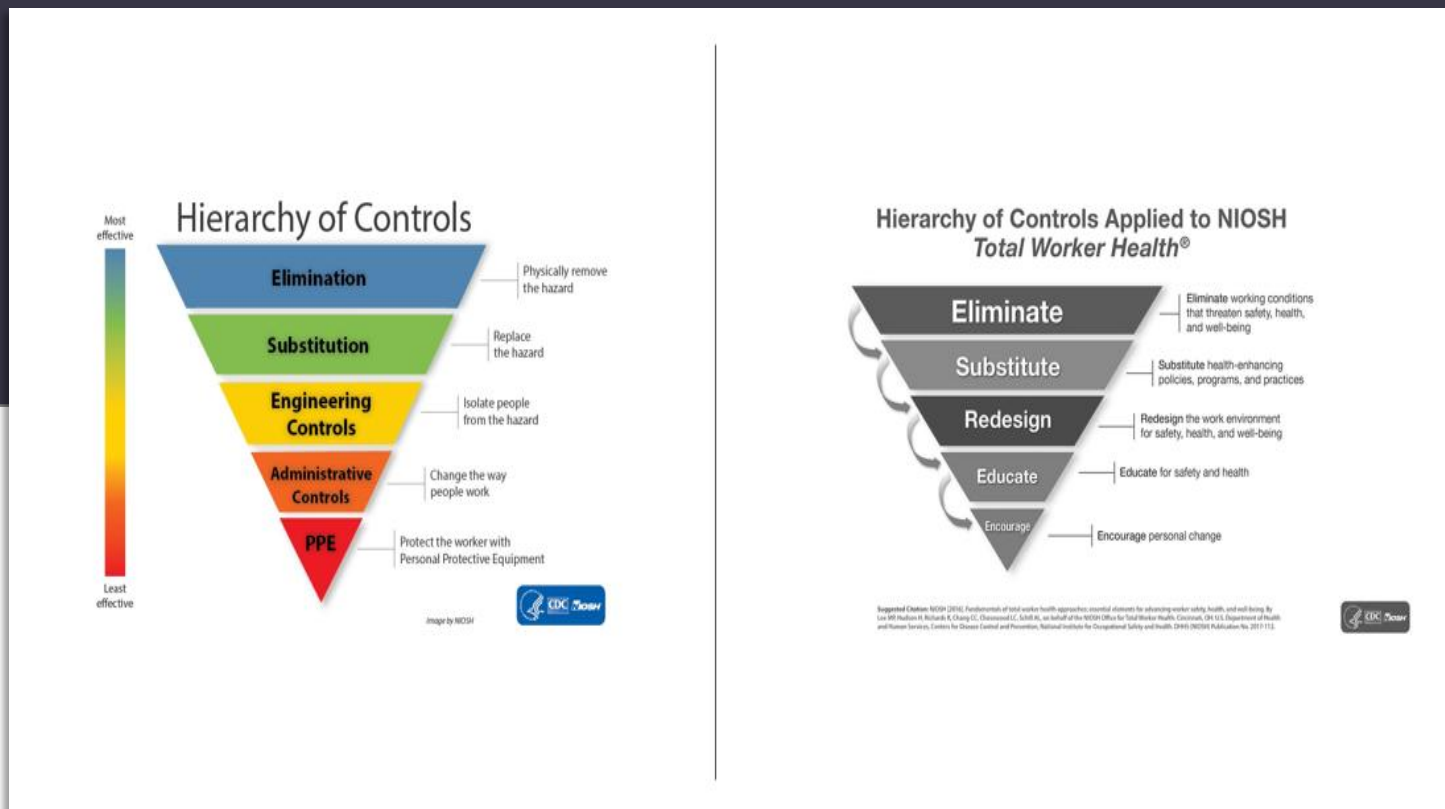


Consultants also assist in creating tailored training programs, conducting workshops, and providing the latest research findings that inform organisation policy development. Evaluating the impact of initiatives reinforces best practices and helps organisations measure the effectiveness of their WHS programs. This ensures they adapt to the digital workspace, meet regulatory requirements, and implement best practices efficiently.

Organisations play a crucial role in integrating health standards into their daily operations while fostering a culture prioritising employee well-being. Organisations can maximise the valuable contributions of researchers, regulatory bodies, and expert consultants by providing essential resources and encouraging active engagement in health initiatives. Without this integration, those contributions may not achieve their intended impact. This collaboration fosters ongoing feedback and creates a dynamic environment for continuous improvement, ultimately driving innovation and enhancing health outcomes for all employees.

The advantages of this approach are compelling: regulatory bodies can delegate health responsibilities to employees and organisations, facilitating an active role in health systems that drive cost reduction and contribute to a healthier society. Furthermore, organisations prioritising health and well-being can develop a culture that enhances talent retention and performance. Employees, too, have a crucial role to play; by actively engaging in health-promoting activities and taking responsibility for their well-being, they can contribute to a more positive workplace environment and improve their overall quality of life. By embracing this shift, organisations position themselves to secure top talent and cultivate resilient workplaces, leading to mutual benefits for both organisational success and the healthcare system. This commitment to employee welfare ensures long-term growth and competitiveness in an increasingly challenging environment. The call for an integrated approach is undeniable.

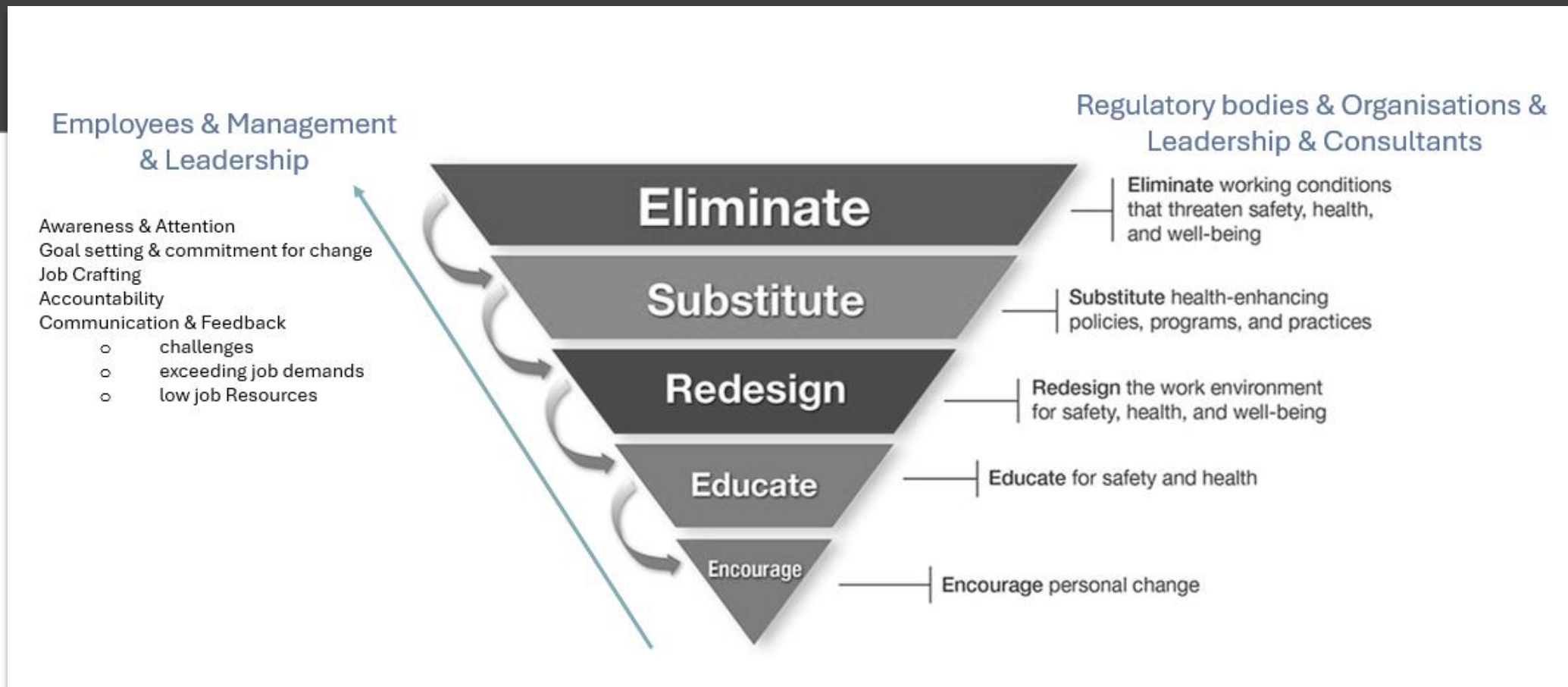
Figure 22: Hierarchy of Control & Hierarchy of Controls-Total Worker Health



Adapted from ¹³⁰, ¹³¹: NIOSH (2015, 2016).



Figure 23: Top-down-Bottom-up Bidirectional relationship & Feedback loop



Adapted from ¹³¹: NIOSH (2016).



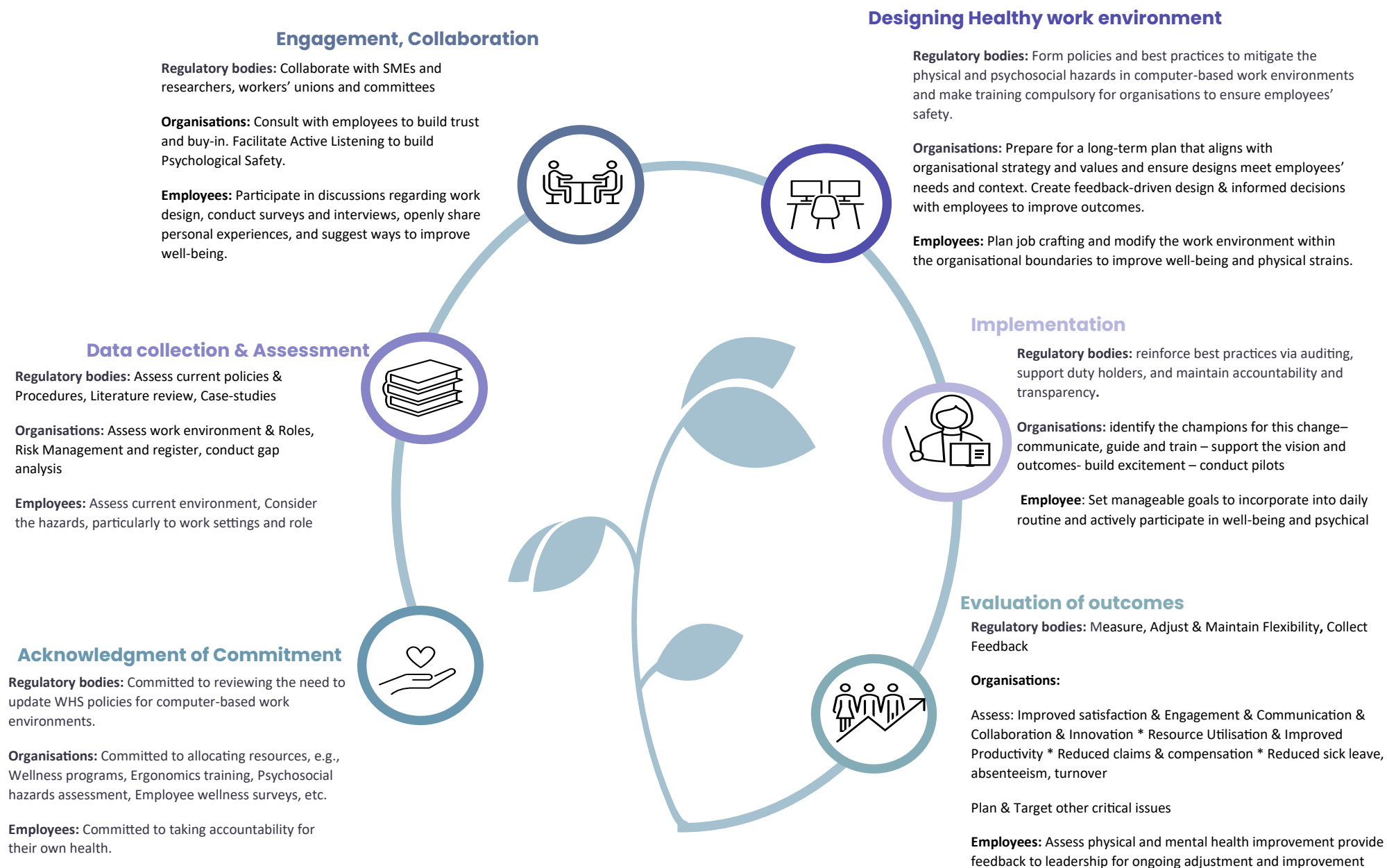


Figure 24: Optimising Workplace health



Definitions and Abbreviations

This document includes several key abbreviations and definitions relevant to workplace health and safety: **AI** (Artificial Intelligence), **BPO** (Business Process Outsourcing), **CAD** (Computer-Aided Design), **Chronic pain/stress** (persistent pain/stress), **Chronic Health Issues** (general term includes both illness and pain/stress), **CTS** (Carpal Tunnel Syndrome), **CVS** (Computer Vision Syndrome), **CX** (stands for customer experience, referring to all interactions with a company, including call and contact centres), **DES** (Digital Eye Strain), **EAP** (Employee Assistance Programs), **GWI** (Global Wellness Institute), **LBP** (Low Back Pain), **MSDs** (Musculoskeletal Disorders), **PE** (Participatory Ergonomics), **POS** (Point-of-Sale), **RSIs** (Repetitive Strain Injuries), **WHS** (Workplace Health and Safety), **WMSDs** (Work-Related Musculoskeletal Disorders), and **ADRD** (Alzheimer's Disease and Related Dementias).

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