



NATIONAL COMMISSION ON
**Climate and
Workforce Health**

CLIMATE AND HEALTH: **The Increasing Risks to Our People-Powered Economy**

*An analysis of the growing threats our climate poses
to workforce health and business performance*

PRESENTED BY



IN PARTNERSHIP WITH



WITH ADDITIONAL SUPPORT FROM



APRIL 2024



FOREWORD

By Dr. David Michaels

Former Assistant Secretary of Labor for OSHA

The increasing frequency and severity of climate-driven events are bringing new hazards to the nation's workplaces. Heat, wildfire smoke and extreme weather events like hurricanes and floods are becoming more common and often more deadly. These events can have serious and even tragic impacts on workers, their families and their communities. They can also be disastrous to businesses whose operations are disrupted.

To be prepared for any severe weather event, corporate leaders must invest in human and business resilience well before specific threats emerge.

The most obvious and growing danger to workers is extreme heat. Each summer we see more very hot, humid days, making outdoor work difficult and potentially deadly. While some businesses in industries like agriculture and construction are finding ways to adapt to these changes, other firms are unprepared when heat waves hit their communities.

Businesses operating outdoor workplaces have more than heat to worry about. Last summer, there were days when East Coast cities like New York and Washington had levels of particulates in the outdoor air that were among the highest recorded anywhere in the world, making it difficult or dangerous to breathe. And new hazards are on the horizon; higher temperatures are expanding the reach of some insects, increasing outdoor workers' risk of Lyme disease, and will likely soon bring malaria and other vector-borne diseases that we have not seen for many years in this country.

Extreme weather threatens indoor workers, too. Elevated outdoor temperatures can make unairconditioned indoor workplaces like warehouses almost unbearable. Wildfire smoke can also impact workers in offices and other buildings whose HVAC systems aren't able to provide adequate clean air.



Corporate leaders must invest in human and business resilience well before specific threats emerge.



Beyond the human impact, the economic and financial consequences of our changing climate are significant. Working in very hot conditions increases the risk of work injuries and substantially reduces employee productivity. Many firms have seen their supply chains disrupted by extreme weather events.

Given these realities, businesses can be certain there is climate-related volatility in the future.

These risks are becoming apparent to everyone from the C-suite to the shop floor, and workers need to see their employers are taking steps to ensure their safety. An employer's plans to address these risks are key to maintaining a committed workforce and uninterrupted operations.

Amid these escalating challenges, we have established the National Commission on Climate and Workforce Health as a critical beacon of hope and action.

Many businesses are ready to embrace actionable solutions, yet find themselves uncertain about how to adapt, seeking trusted advice and expertise to guide their efforts. The Commission is poised to help fill this void, providing the necessary tools, insights and collaborative opportunities to empower employers.

This cross-sector endeavor will ensure our workforce is not just safeguarded against current environmental challenges but is resilient in the face of future threats, thereby securing a healthy, sustainable and prosperous path forward for all.



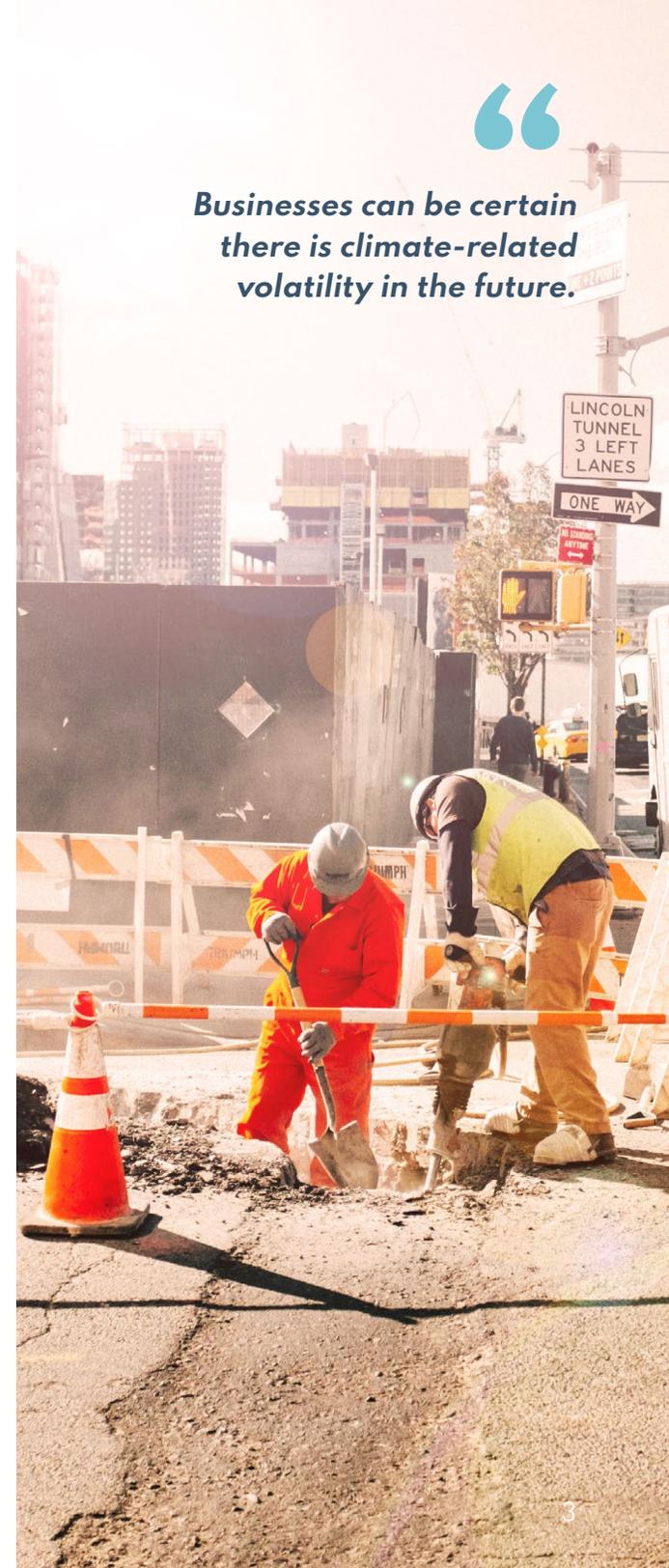
Dr. David Michaels

Member, National Commission on Climate and Workforce Health

Former Assistant Secretary of Labor for the Occupational Safety and Health Administration (OSHA)



Businesses can be certain there is climate-related volatility in the future.



CONTENTS

Foreword	2
Executive Summary	5
Climate Risks to Workforce Health and Business	7
Key Health Impacts	7
Disparities in Risk Distribution	9
Mental Health and Eco-Anxiety	11
The Business Case for Action	12
Key Challenges	14
Public Policy Gaps	16
Meeting the Challenge	17
National Commission on Climate and Workforce Health	17
Meet the Commission	18
The Commission's Charge	19
First Step Recommendations	20
References	21



THE THREAT FACING OUR PEOPLE-POWERED ECONOMY

In our people-powered economy, health risks have become business risks.

Fifty years ago, more than 80% of the value of the S&P 500 was in infrastructure capital, like machinery, heavy equipment and inventory.

Today, more than 80% of S&P 500 companies' value is in human capital.

The skills, knowledge, innovation and productivity of employees now constitute the backbone of corporate success. The businesses that protect and invest in the health and well-being of their workforces are rising to the top.

Despite this recognition among corporate leaders, Health Action Alliance's interviews with more than 100 executives revealed an underrecognized vulnerability: extreme climate conditions.

The World Health Organization (WHO) now recognizes our changing climate as the "single biggest health threat facing humanity."

From scorching heat waves to devastating storms to the haze of wildfire smoke, the growing frequency and severity of extreme weather events threaten both the health of workers and the resilience of businesses.

Executives are cognizant of the danger. The World Economic Forum found that CEOs have identified extreme weather as a top threat to their businesses in the coming year. Moreover, they foresee extreme weather as the most severe risk over the next decade.

This apprehension is echoed by the workforce, with 62% of U.S. workers reporting they are worried about the impact of our changing climate on their health — or that they or their families have already been affected.

Despite this growing awareness, there's a disconnect when it comes to the business leaders responsible for employee health and safety initiatives, a new survey fielded by the Commission suggests. More than 80% of health and benefits leaders from a diverse array of 25 companies said they have a "low" level of concern or are "not concerned at all" about the impact of severe weather on workforce health.

This could help explain why only 17% of global CEOs have implemented strategies to protect employees from the impacts of climate risk. And fewer than one in five business leaders feel fully prepared to shield their workforce.

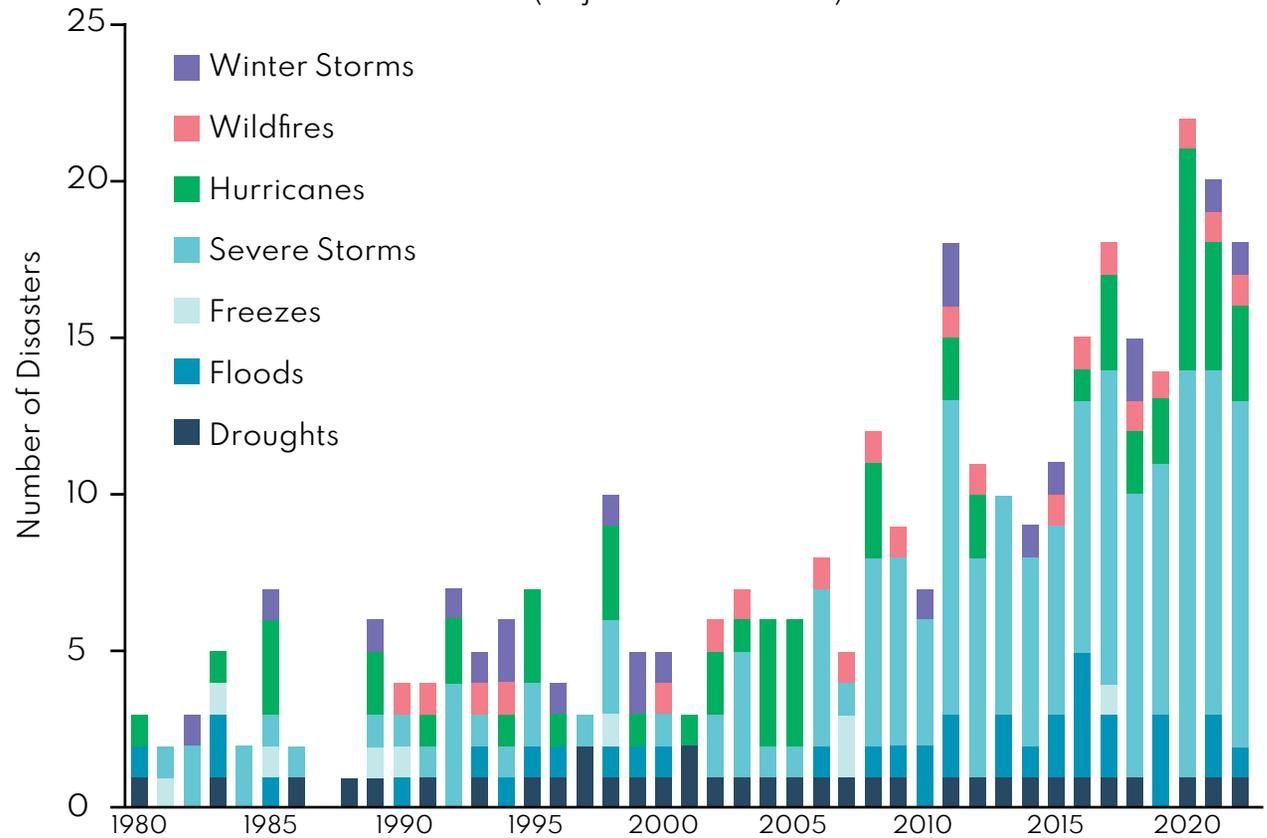
To protect the health of their workers and the continuity of their businesses, leaders need to understand the risks and adapt to the reality of today's climate conditions.

The National Commission on Climate and Workforce Health developed this report to highlight the risks our climate poses to worker health and business performance, to identify key challenges preventing businesses from taking action, and to be a catalyst to help leaders chart a path toward creating climate-resilient workforces.

The report incorporates data points from a range of recently published studies on climate and employee health, including findings from a March 2024 survey fielded by the Commission, which polled health and benefits leaders at 25 companies in the Health Action Alliance network. It also highlights unique insights from more than 100 in-depth, qualitative interviews the Commission conducted with C-suite executives and other business leaders, public health officials and climate scientists.

BILLION-DOLLAR WEATHER DISASTERS IN THE U.S.

(Adjusted for Inflation)



The number of climate disasters causing more than \$1 billion in direct losses has substantially increased over the last 40 years.

Adapted from [U.S. Global Change Research Program \(2023\)](#)



CLIMATE RISKS TO WORKFORCE HEALTH AND BUSINESS

Climate events threaten workforce health and business operations across the U.S.

To respond to a threat, we first must identify it.

The table to the right highlights the direct risks that climate events pose to employee health and the resulting business impacts.

Preparing for climate-related physical and mental health risks can be a catalyst for companies' innovation and growth. But the essential first step is for business leaders to understand their vulnerabilities and make a plan to manage them.

Climate Event	Key Health Impacts	Resulting Business Impacts
Extreme Heat	<ul style="list-style-type: none"> • Dehydration • Heat stroke • Aggravated cardiovascular and respiratory illnesses 	<ul style="list-style-type: none"> • Mental health distress • Chronic disease complications • Workplace injuries
Poor Air Quality	<ul style="list-style-type: none"> • Respiratory conditions • Cardiovascular challenges • Eye irritation and vision problems • Skin conditions 	<ul style="list-style-type: none"> • Cognitive impairment • Mental health effects • Exacerbation of chronic health conditions • Pregnancy complications
Unprecedented Storms	<ul style="list-style-type: none"> • Physical injuries • Mental health trauma • Waterborne diseases • Respiratory problems • Disruption of medical services 	<ul style="list-style-type: none"> • Destruction of food systems and nutritional deficiencies • Destruction of housing • Disruption of transportation systems • Exposure to chemicals and toxins
Vector-Borne Illnesses	<ul style="list-style-type: none"> • Lyme Disease • West Nile Virus • Rocky Mountain Spotted Fever • Eastern Equine Encephalitis 	<ul style="list-style-type: none"> • Decreased productivity • Increased healthcare costs • Increased disability costs • Increased workers' compensation claims • Employee absenteeism • Turnover and retention issues • Reduced morale and job satisfaction • Increased safety risks • Regulatory and compliance risk • Lack of talent available in certain areas as a result of climate displacement or migration • Supply chain disruption • Reduced income • Unexpected forced closures

Sources: See References





The increasing severity of climate events not only poses immediate health risks but also exacerbates existing physical and mental health conditions. Given the increasing frequency of severe weather events, workforces are more likely to face repeated exposure to extreme conditions over time, compounding physical and mental health issues that negatively impact business productivity and profitability.

On the other hand, multiple studies show a healthier workforce provides a competitive business advantage. Companies that invest in workforce health and safety have increased profitability and superior stock performance.

CLIMATE-DRIVEN HEALTH COSTS



62% of workers with employer-sponsored insurance have a chronic condition, which can be exacerbated by extreme heat or poor air quality.

[PwC \(2020\)](#)



2.2%

Heat stress is projected to reduce total working hours worldwide by **2.2%** and global GDP by **\$2.4 billion** in 2030.

[International Labour Organization \(2019\)](#)



295 Billion

work hours in productivity loss worldwide in 2020 due to extreme heat.

[Dialogues économiques \(2023\)](#)

\$800 Billion

Climate-related health costs in the U.S. now total over **\$800 billion per year**.

[Natural Resources Defense Council \(2021\)](#)

BUSINESS OPPORTUNITIES



Every **\$1** saved in direct healthcare costs yields **\$2.30** in improved performance and productivity.

[Journal of Occupational and Environmental Medicine \(2018\)](#)



2%

Companies that invest in workforce health outperform the S&P 500 by **2% per year**.

[Journal of Occupational and Environmental Medicine \(2021\)](#)

While the risk is widespread, it is not distributed equally.

While climate-related health risks are pervasive, certain industries and segments within the workforce are more exposed to extreme weather conditions — and more vulnerable to the health impacts and safety hazards of our changing climate. Environmental disruption is a threat multiplier for overall human health, and under-resourced and marginalized communities are disproportionately impacted by the effects of our changing climate.

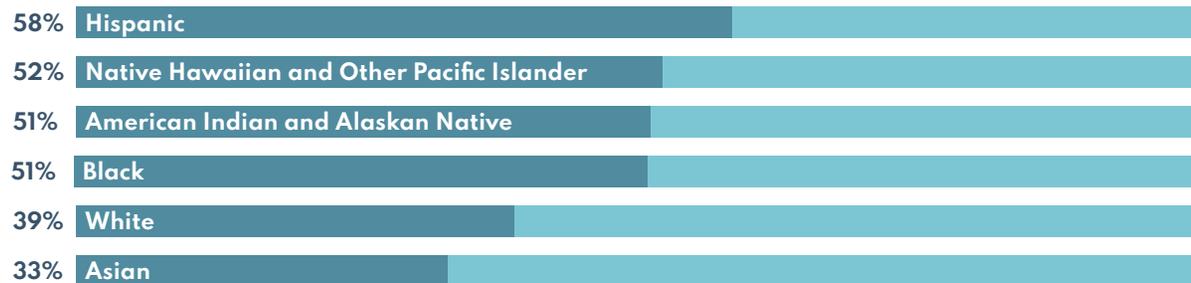
Almost half of the U.S. workforce — 65 million people — are at increased risk for climate-related health problems.

WORKFORCE POPULATIONS AT HEIGHTENED RISK

A recent KFF analysis highlights this concerning disparity, showing communities of color in the U.S. face a higher risk of mortality due to extreme heat. Underlying inequities — such as long-standing residential segregation and disparities in access to natural cooling resources like tree canopies — amplify the risk of exposure to intense heat and poor air quality, further exacerbating health vulnerabilities among these populations.

This disproportionate vulnerability underscores the critical need for targeted interventions and policies that prioritize the protection of these high-risk groups. It also highlights the importance of inclusive planning and equitable resource allocation to ensure climate resilience efforts reach those most in need.

% OF WORKERS IN JOBS AT HIGHER RISK FOR CLIMATE-HEALTH IMPACTS



58% of Hispanic workers are in occupations at higher risk for climate-related health impacts. The majorities of Indigenous and Black workers are also in higher-risk jobs.

“

If there is a health or safety risk to our employees, it is also a business continuity issue. If we want to ensure we maintain a resilient workforce and business, we have to better understand the climate risks to our employees.

– Chief Health and Safety Officer, Technology Industry



Industries / Sectors at Heightened Risk

Specific industries and sectors are at the forefront of vulnerability to climate-related hazards. From extreme heat affecting outdoor workers in agriculture and construction to poor air quality impacting those in manufacturing and healthcare, these delineations underscore the varied nature of climate threats across different occupational landscapes.

EXTREME HEAT

- Agriculture
- Construction
- Landscaping and Groundskeeping
- Utilities
- Forestry, Fishing and Hunting
- Transportation and Shipping
- Warehousing

INCONSISTENT AIR QUALITY

- Construction
- Manufacturing and Industrial Workers
- Transportation
- Warehousing
- Wildland Firefighting
- Emergency Responders
- Healthcare

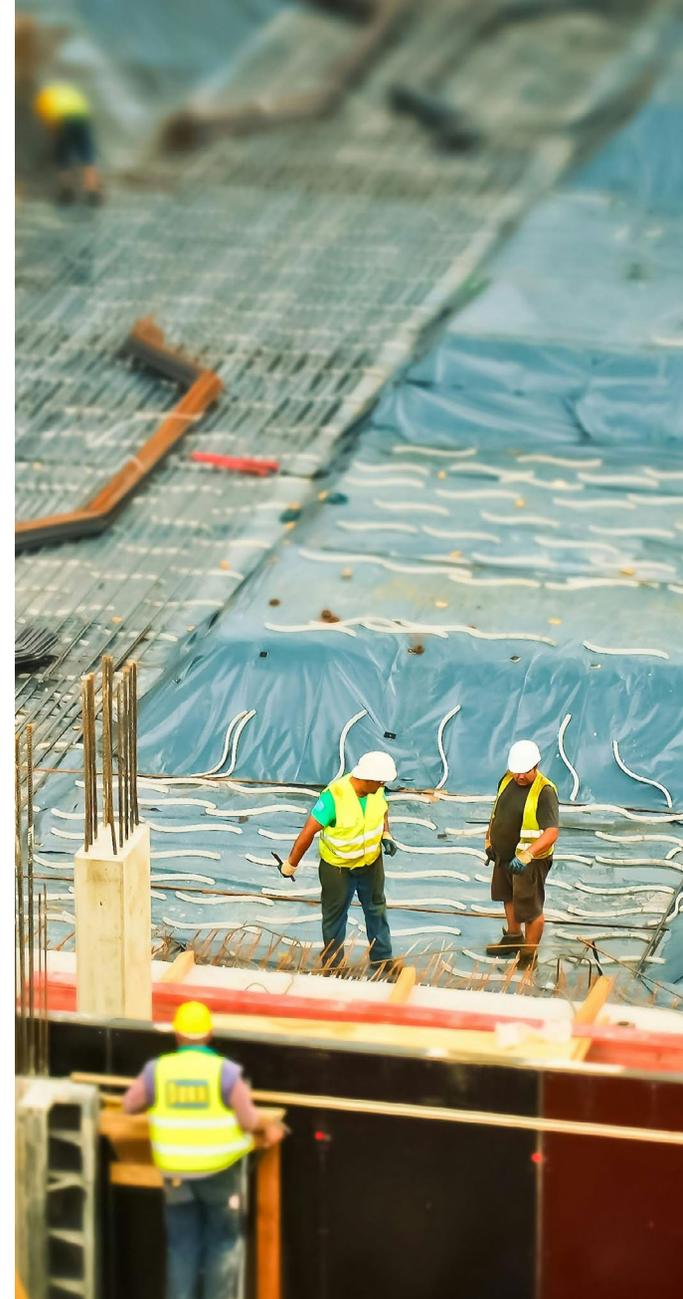
UNPRECEDENTED STORMS

- Emergency Services and Disaster Response
- Utilities
- Construction and Roofing
- Transportation

VECTOR-BORNE ILLNESSES

- Agriculture
- Landscaping and Groundskeeping
- Construction
- Forestry
- Water and Sanitation
- Outdoor Recreation and Parks Management

Sources: See References



It's critically important for business leaders in all industry sectors to not only ask 'How are we impacting the environment?' but at the same time 'How is the environment impacting our people — and are we thinking equitably about how to protect them?'

- White House Climate Advisor

Our climate is also taking a toll on employee mental health.

Amid these increasingly severe climate conditions, another health challenge has emerged: eco-anxiety.

Eco-anxiety, which is defined by the American Psychological Association as “a chronic fear of environmental doom,” is exacerbated by exposure to severe weather events and poor air quality as well as by media coverage and social media discussion about the dangers of climate change.

Eco-anxiety is widespread and is affecting businesses. In a 2023 survey of workers across the globe, 43% reported experiencing eco-anxiety “often” or “almost always,” resulting in feelings of powerlessness, work demotivation and lost focus.

In addition, 52% of respondents thought their employers were unaware of eco-anxiety as a workplace issue, and 60% wanted employers to do more to address the causes of eco-anxiety.

ECO-ANXIETY



of people report fear about climate change, with 41% feeling “very” or “extremely” fearful

Global Future (2021)



of Gen Z Americans say the climate crisis negatively affects their mental health, with more youth of color (71%) citing a mental health impact

BlueSky (2023)

SOCIAL DETERMINANTS OF HEALTH: WORK'S NEW CLIMATE CONTEXT

Work has profound implications for our health; factors like job security, wages, working conditions and workplace culture can significantly influence health outcomes, for better or worse.

Now, our changing climate has emerged as a critical variable in this employee well-being equation, exacerbating existing workplace hazards and health risks.

The good news is 97% of organizations surveyed in Mercer’s U.S. People Risk Study reported that their HR and risk management professionals are already working together to mitigate people risks. This collaboration can serve as a foundation for businesses to build more health-forward climate strategies, develop prevention-focused interventions, and advocate for policy change to address the “double burden” of both community and workplace exposure to air pollution, extreme heat and other climate-related hazards.

By strengthening workforce safety and resilience in the face of increasingly extreme climate conditions, business leaders can help ensure that work is a positive determinant of their employees’ health.



THE BUSINESS CASE FOR ACTION

Over the past six months, the Health Action Alliance has conducted more than 100 in-depth interviews with senior executives and C-suite leaders across a range of functions — including operations, human resources, sustainability, medical affairs, communications and risk — as well as senior public health officials and climate experts. We also collected insights from a survey of HR, benefits and workplace wellness leaders.

What emerged from those conversations was a clear business case for action.

1. Extreme weather represents a growing threat to human capital, and it only worsens over time.

Every year, we face one or more “once in a century” climate emergencies, from wildfires in California and Texas to extreme drought in the Colorado River Basin to hurricanes and flooding in the Southeast. Studies show hotter temperatures produce more drug-resistant pathogens, drive higher levels of anxiety and depression, and increase rates of injuries and violence.

2. Since employers shoulder a significant portion of U.S. healthcare expenses, climate-related health impacts lead to escalating business costs, compounding over time.

The health costs of air pollution and climate change already exceed \$800 billion per year in the U.S.— and that number is rapidly increasing.

3. The health impacts of our changing climate create systems-level disruptions that heighten risk and uncertainty for business.

Increasingly extreme weather disrupts worker migration, supply chains and vital infrastructure systems necessary for keeping people healthy, such as water, sewage treatment and energy.

4. Workers are facing climate-related health challenges, and they are looking to employers to take action.

The majority of U.S. workers are concerned about or have already experienced climate-related health impacts, such as extreme heat causing workplace injuries or severe weather disrupting continuity of care. Workers broadly expect their employers to both reduce their environmental footprint and invest in workforce well-being.



Workers are concerned, and employers are not yet sure how to respond.

<p>Global CEOs say that extreme weather events are the top risk.</p>	<p>In the World Economic Forum’s 2024 Global Risk Report, executives <u>ranked</u> extreme weather as the most severe risk to the global economy in the next decade.</p>
<p>And, most American workers are concerned about the health impacts of more frequent and severe weather events...</p>	<p>62% of U.S. workers are concerned about our changing climate’s impact on their health — or that they or their family have already been affected. <u>Mercer 2023-2024 Inside Employees Minds Survey</u></p>
<p>...yet business leaders have been slow to address the need.</p>	<p>In the Commission’s survey of HR and benefits leaders from 25 companies, 76% say they are not addressing climate-related health risks to their employees. HAA March 2024 Survey of HR and Benefits Leaders</p>



Only 17% of Global CEOs have implemented strategies to safeguard their employees and operations against climate health risks.
PwC (2023)

< 1 in 5 **Less than one in five business leaders feel very prepared** to address climate-related health risks.
Mercer 2023-2024 Inside Employees Minds Employer Survey

“ *We don’t fully know the magnitude of risks to our employees. It’s something we need to better understand if we’re going to be able to affect change.*

- Chief Medical Officer,
Entertainment Industry

“ *Who doesn’t want employees to be healthy? Everyone can advocate for that. The challenge is that we look at healthcare as a cost as opposed to an investment that pays returns.*

- Chief Human Resource Officer,
Utility Industry



Key Challenges

Our interviews with business leaders, public health officials and climate experts surfaced five interrelated challenges experienced by many employers. Addressing these will help cultivate a health-forward climate mindset.

1. Many Employers Don't See Extreme Weather as a Health Issue

Many employers do not yet recognize the direct connection between our changing climate and employee health. This oversight means that the tangible health impacts of climate events are often underestimated or ignored in corporate planning and risk management. Without acknowledging this crucial link, companies may not prioritize or invest in adaptations to safeguard their employees against the health threats posed by a changing climate.

2. Uncertainty About How To Approach Quantifying the Risk

Due to a lack of precise tools and clear guidelines, many business leaders struggle to identify and assess climate-related health risks, making it difficult to anticipate long-term healthcare costs and financial impacts. This gap in forecasting hinders risk management and undermines the development of strategic responses to the health implications of our changing climate.

3. Organizational Stakeholders Are Siloed

Efforts to combat climate health risks are often scattered across departments — medical, HR, sustainability and operations — leading to fragmented strategies and unclear responsibility. This siloed approach hampers the effectiveness of response measures and complicates the coordination necessary for comprehensive action against climate-related health threats.



Our leadership recognizes that we need to look outside our organization and leverage the collective knowledge of other leaders willing to share information, best practices and also what doesn't work.

– HR and Benefits Leader, Transportation Industry



4. Effective Interventions Aren't Yet Defined

Businesses have yet to develop a shared understanding of best practices and research-backed interventions to protect their workforce, resulting in vulnerability to health impacts and operational disruptions. Further, as climate health threats evolve, employers struggle to identify effective solutions, like heat-resistant clothing or air quality monitors, due to a lack of authoritative guidance and a fragmented solutions marketplace.

5. The Challenge Can Feel Too Big To Tackle

Addressing climate-driven health impacts does not make it to the top of the priority list because the challenge is often framed as a global crisis, far too vast and complex to feel relevant or addressable by any one company. When the issue is discussed at a scale that feels beyond the scope of any company's responsibility, achievable interventions to safeguard worker health are often overlooked and left unrealized.

“

Good storytelling is what changes minds and behaviors. We don't have anyone internally looking at the data on climate and employee health and putting together a compelling narrative on the risk we face.

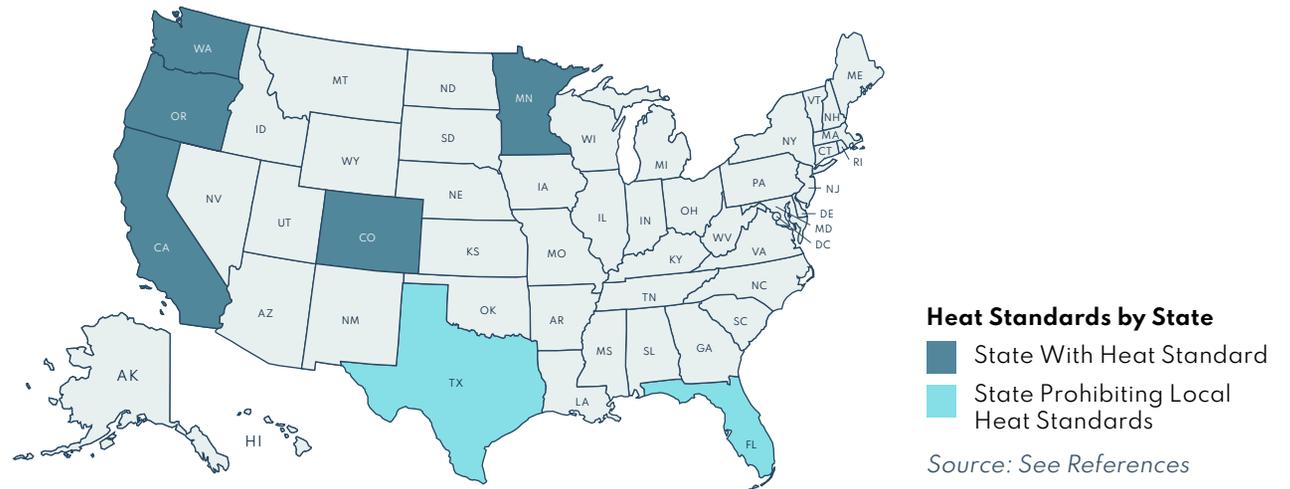
- Chief Operations Officer,
Manufacturing Industry



Public policy is not moving at the pace of change.

Despite the urgency of this public health challenge, the Occupational Safety and Health Administration (OSHA) has not developed comprehensive national heat safety standards or requirements. More recently, new reporting mandates proposed by the U.S. Securities and Exchange Commission that would require publicly traded companies to disclose their climate risk have been held up in the courts, further slowing employer action to protect their workers.

Instead, what's emerged is a patchwork of heat safety practices and voluntary standards being implemented by a small number of U.S. employers, while a handful of states have developed some regulations to enforce — or prohibit — heat safety practices. Meanwhile, companies are already facing active threats to their workforce and increasing pressure from their employees to protect them from weather-related health risks.



STATE HEAT STANDARDS AS OF APRIL 2024

Five states — California, Colorado, Minnesota, Oregon and Washington — have codified heat safety standards, such as mandatory training, water, shade, rest and air-conditioning. However, there remain issues around compliance and enforcement, and other state governments have vetoed or rolled back local efforts to increase heat requirements. Florida and Texas both passed laws banning local governments from implementing their own workplace heat standards.

With such inconsistent standards across the U.S., safety practices vary from company to company. Some employers — such as Ryland Environmental, a 200-employee waste management company in Georgia — have adopted company-specific heat safety plans. For larger companies like United Parcel Service (UPS), heat safety protocols and training have become critical factors in the collective bargaining negotiation process.

In the absence of government standards, we need business innovation to solve the business problem.



Government agencies including OSHA and EPA are developing standards to address the climate-related health risks we face. Once they are issued, employees will benefit. But future regulations don't help protect people from the health risks they are facing today.

-Dr. David Michaels, Former Assistant Secretary of Labor for OSHA

MEETING THE CHALLENGE



NATIONAL COMMISSION ON Climate and Workforce Health

Empowering Businesses to Build Climate-Resilient Workforces

The benefits of building a climate-resilient workforce are clear, but in order to develop and implement effective strategies, businesses urgently need tools and resources, practical solutions and actionable recommendations.

The National Commission on Climate and Workforce Health is a diverse group of leaders from business, public health and sustainability dedicated to protecting workers from the health impacts caused by more frequent and extreme weather events.

The Commission was created by the [Health Action Alliance](#) in partnership with [Mercer](#) and with strategic input from the [CDC Foundation](#). Additional support for the initiative is being provided by [Elevance Health](#) and [The Hartford](#).



MEET THE COMMISSION



Dr. William Frist, Co-Chair
Former Majority Leader,
U.S. Senate;
Partner, Frist Cressey Ventures



Jane Gilbert
Chief Heat Officer,
Miami-Dade County, Florida



Dr. Lisa Patel
Clinical Associate Professor,
Stanford Medicine;
Executive Director, Medical Society
Consortium on Climate and Health



Susan Potter, Co-Chair
President,
Mercer U.S. and Canada



Dr. Pam Hymel
Chief Medical Officer,
Disney Experiences



Dr. Adam Seidner
Chief Medical Officer,
The Hartford



Dr. Georges Benjamin
Executive Director,
American Public Health
Association



Abner Mason
Founder and CEO,
SameSky Health



Lawrence Sloan
CEO, American Industrial
Hygiene Association



Dr. Brian Castrucci
President and CEO,
de Beaumont Foundation



Hakon Mattson
Chief Sustainability Officer,
Elevance Health



Dr. Sohini Stone
Chief Medical Officer for Global
Employee Health, Google



Gary Cohen
President and Founder,
Health Care Without Harm



Dr. David Michaels
Former Assistant Secretary of Labor,
U.S. Occupational Safety and
Health Administration (OSHA);
Professor, George Washington
University School of Public Health



Dr. Howard Frumkin
Senior Vice President,
Trust for Public Land;
Professor Emeritus,
University of Washington



Dr. Judy Monroe
President and CEO,
CDC Foundation



The Commission's Charge

The Commission represents a crucial step by the private sector to develop innovative solutions to assess and address the risks that extreme weather poses to the health and well-being of employees and communities.

THE NATIONAL COMMISSION ON CLIMATE AND WORKFORCE HEALTH WILL:



Educate and Engage Employers

The Commission will create ongoing educational programs for business leaders about the threats our changing climate poses to the health of their employees.



Quantify the Risk

The Commission will bring together actuaries from Mercer and public health data experts to develop a first-of-its-kind interactive financial projection tool that will help employers understand their risk and forecast the health-related costs associated with our changing climate over time.



Develop Recommended Actions

Convene cross-functional business leaders and experts in climate and public health to develop a set of recommended actions employers can take to address the short-, medium- and longer-term health risks posed by our changing climate, prioritizing those workers at highest risk.



Foster Peer-Learning Communities

The Commission plans to convene collaborative networks of business leaders and experts to share strategies and accelerate the adoption of effective interventions to protect their workforce against climate-related health risks.



Identify Opportunities for Entrepreneurship and Innovation

The Commission will collaborate with startups, research institutions and employers to identify and promote innovative solutions that mitigate the health impacts of climate change on vulnerable workers and establish a robust marketplace for climate-health solutions.

How Employers Can Start Developing a Health-Forward Climate Mindset

In the coming months, the Commission will research, identify and share a set of comprehensive recommendations for employers to protect workers from the health risks posed by our changing climate. However, there are opportunities for employers to begin taking steps now to improve the resilience of their workforce and their operations.

STEP ONE

Assess and Evaluate Risk

- Conduct an initial assessment to identify potential climate-related health risks to employees, customers and communities.
- Monitor environmental indicators relevant to your operations and workforce, such as air quality and heat indexes.
- Consider the direct effects of increasingly extreme weather on worker safety risks and operational vulnerabilities.
- Consider the indirect effects of extreme weather on housing, healthcare access, mental well-being, food security and other factors that influence employee and community health.

STEP TWO

Engage Stakeholders

- Convene a cross-functional internal task force to collaborate on strategies to mitigate the health impacts of our changing climate.
- Consult employee resource groups and use surveys, focus groups and workshops to gather insight and foster a collaborative approach. Ensure you include members of your workforce who represent communities disproportionately affected by extreme weather events.
- Partner with local leaders, community-based organizations, public health agencies and academic institutions to pool expertise and resources for more impactful interventions.

STEP THREE

Implement Plans

- Develop and enact preliminary plans to mitigate immediate health risks to your employees, monitoring their effectiveness and adapting your plans to feedback.
- Support community-led initiatives that align with climate resilience, assist those in communities who are most at risk and empower your employees to participate actively in these efforts.
- Initiate strategies to reduce your organization's environmental footprint through energy efficiency, renewable energy adoption and sustainable practices.



REFERENCES

American Journal of Industrial Medicine | [Characterizing Occupational Heat-Related Mortality in the United States, 2000–2010: An Analysis Using the Census of Fatal Occupational Injuries Database](#) (Feb. 2016)

American Journal of Lifestyle Medicine | [Planetary Health, Climate Change, and Lifestyle Medicine: Threats and Opportunities](#) (April 21, 2021)

American Psychological Association and ecoAmerica | [Mental Health and Our Changing Climate: Impacts, Inequities, Responses](#) (2021)

American Public Health Association | [How Climate Change Affects Your Health](#) (2024)

California Department of Industrial Relations | [Heat Illness Prevention](#) (Feb. 2024)

Centers for Disease Control and Prevention (CDC) | [Heat-Related Deaths Among Crop Workers — United States, 1992–2006](#) (June 20, 2008)

Centers for Disease Control and Prevention (CDC) | [Occupational Safety and Health and Climate](#) (April 18, 2023)

Center for American Progress | [The Health Care Costs of Extreme Heat](#) (June 27, 2023)

CliftonStrengths | [Every Company Has Human Capital — Not Every Company Develops It](#) (May 11, 2021)

Climate Mental Health Network | [The Issue](#) (2021)

Climatologie | [Impact of topography and atmospheric circulation on the urban heat island under heat waves](#) (Oct. 24, 2023)

Deloitte | [As workforce well-being dips, leaders ask: What will it take to move the needle?](#) (June 20, 2023)

Diagnostics (Basel, Switzerland) | [Occupational Lyme Disease: A Systematic Review and Meta-Analysis](#) (Jan. 25, 2022)

Dialogues Économiques | [Heatwaves: stifling the economy](#) (July 5, 2023)

Environmental Protection Agency (EPA) | [Climate Change and the Health of Occupational Groups](#) (May 2016)

Environmental Protection Agency (EPA) | [Particulate Matter \(PM\) Basics](#) (July 11, 2023)

Forbes | [Extreme Weather, Climate Change Driving New IMO Shipping Regulations](#) (March 1, 2023)

Frontiers Psychiatry | [The Impact of Climate Change on Mental Health: A Systematic Descriptive Review](#) (March 4, 2020)

Global Future Think Tank | [A Crisis in Common: How Eco-Anxiety is Shared Across Our Country](#) (2021)

Intergovernmental Panel on Climate Change (IPCC) | [Sixth Assessment Report: Chapter 8: Poverty, Livelihoods and Sustainable Development](#) (Feb. 28, 2022)

International Labour Organization | [Working on a Warmer Planet: The impact of heat stress on labour productivity and decent work](#) (2019)

International Monetary Fund | [Economic Principles for Integrating Adaptation to Climate Change into Fiscal Policy](#) (March 23, 2022)

Journal of Occupational and Environmental Medicine | [Health and Productivity as a Business Strategy: A Multiemployer Study](#) (April 2009)

Journal of Occupational and Environmental Medicine | [The Correlation of a Corporate Culture of Health Assessment Score and Health Care Cost Trend](#) (Feb. 19, 2018)

Journal of Occupational and Environmental Medicine | [Companies That Promote a Culture of Health, Safety, and Wellbeing Outperform in the Marketplace](#) (June 2021)

KFF | [Climate-Related Health Risks Among Workers: Who is at Increased Risk?](#) (June 26, 2023)

KFF | [Continued Rises in Extreme Heat and Implications for Health Disparities](#) (Aug. 24, 2023)

KFF | [Kaiser Family Foundation /LA Times Survey Of Adults With Employer-Sponsored Health Insurance](#) (May 2019)

Mercer | [Inside Employees' Minds: Navigating the New World at Work](#) (2023)

National Institute of Environmental Health Sciences | [Air Pollution and Your Health](#) (April 2, 2024)

Natural Resources Defense Council | [The Costs of Inaction: The Economic Burden of Fossil Fuels and Climate Change on Health in the United States](#) (May 20, 2021)

Nature Climate Change | [Antibiotic resistance increases with local temperature](#) (May 21, 2018)

NBC News | [Florida Senate passes bill blocking local rules protecting workers from heat](#) (March 6, 2024)

NBC News | [Backlash brews against Texas law that eliminates mandatory water breaks](#) (July 7, 2023)

NBC News | [UPS workers approve new contract with hard-fought pay and safety gains, ending strike threat](#) (Aug. 22, 2023)

NOAA National Centers for Environmental Information | [U.S. Billion-Dollar Weather and Climate Disasters: Time Series](#) (2024)

Occupational Safety and Health Administration (OSHA) | [Heat Exposure Standards](#) (Accessed April 2024)

Ocean Tomo | [2015 Annual Study of Intangible Asset Market Value](#) (March 5, 2015)

Ponemon Institute | [2019 Intangible Assets Financial Statement Impact Comparison Report](#) (April 2019)

PwC | [How climate adaptation can both protect and grow your business](#) (Aug. 15, 2023)

PwC | [Medical cost trend: Behind the numbers 2020](#) (June 2019)

PwC | [PwC's 27th Annual Global CEO Survey: Thriving in an age of continuous reinvention](#) (2024)

Scientific American | [A Warming Climate May Produce More Drug-Resistant Infections](#) (May 21, 2018)

The Guardian | [Phoenix passes landmark rule requiring heat protection for outdoor workers](#) (March 27, 2024)

The Washington Post | [Amid legal challenges, SEC pauses its climate rule](#) (April 5, 2024)

Time | [Extreme Heat Is Endangering America's Workers—and Its Economy](#) (Aug. 3, 2023)

University of California, Los Angeles (UCLA) | [Temperature, Workplace Safety and Labor Market Inequality](#) (June 28, 2021)

U.S. Global Change Research Program (USGCRP) | [Billion Dollar Disasters](#) (2022)

U.S. Global Change Research Program (USGCRP) | [The Fifth National Climate Assessment](#) (2023)

U.S. Securities and Exchange Commission (SEC) | [Climate-Related Disclosures/ESG Investing](#) (March 7, 2024)

World Economic Forum | [The climate crisis disproportionately hits the poor. How can we protect them?](#) (Jan. 13, 2023)

World Economic Forum | [The Global Risks Report 2024](#) (Jan. 2024)

World Economic Forum | [A healthy workforce is good for business](#) (July 19, 2023)

World Health Organization (WHO) | [Climate change and noncommunicable diseases: connections](#) (Nov. 2, 2023)

EDITORIAL NOTE: The Health Action Alliance is solely responsible for the content of this report and maintains full editorial control of its resources. For more information about how we work with corporate sponsors, please refer to our [Corporate Sponsorship Policy](#).

DISCLAIMER: This report provides an overview of workplace health issues and is not intended to be nor should be construed as legal, business, medical, scientific or any other advice for any particular situation. The content included herein is provided for informational purposes only and may not reflect the most current developments as the subject matter is extremely fluid.

This report contains links to third-party websites. Such links are only for the convenience of the reader, user or browser; the Health Action Alliance does not recommend or endorse the contents of the third-party sites.

A More Resilient Workforce, Now

The time to protect our workforce from the escalating impacts of extreme weather is now.

The health and business consequences are immediate and intensifying.

The rewards of safeguarding our workers are substantial, and the costs of inaction are too great to ignore.

Together, we must forge the path toward a climate-resilient future.

Our businesses, our economy and our communities depend on it.

CONNECT WITH THE COMMISSION

Visit the [National Commission on Climate and Workforce Health website](#) and sign up for our newsletter to stay up to date on our latest initiatives, insights and recommendations.

Interested in shaping the future of workforce climate resilience? [Reach out to us](#) to learn how you can get involved.



NATIONAL COMMISSION ON
**Climate and
Workforce Health**

POWERED BY



WITH SUPPORT FROM

de Beaumont

The National Commission on Climate and Workforce Health is led by the Health Action Alliance (HAA), a unique collaboration between leading business, communications and public health organizations to help employers navigate evolving health challenges, improve the health of workers and engage with public health partners to build stronger, healthier communities. Founded in 2021 by the Ad Council, Business Roundtable, CDC Foundation, the de Beaumont Foundation and the Robert Wood Johnson Foundation, HAA's network now includes more than 9,000 employers nationwide, reaching more than 40 million workers.

This report was developed by the Health Action Alliance with strategic input from Mercer, the CDC Foundation, David Michaels, Elevance Health and The Hartford.

