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2020 COMPENDIUM

# Resetting the World with Wellness

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GLOBAL WELLNESS INSTITUTE WHITE PAPER SERIES

## 2020 WHITE PAPER SERIES:

# Resetting the World with Wellness

The Global Wellness Institute (GWI) is honored to participate in the Vatican working group and Health and Wellness taskforce in the effort to craft an integral response to the aftermath of COVID-19. Health and Wellness is a key pillar of response in this initiative, along with Ecology, Economy, and Security. In these difficult times, wellness can offer a vision for the future and can provide a roadmap for healing and growth. This compendium includes the series of eight white papers prepared for the Vatican by GWI. They build on GWI's comprehensive understanding of wellness as a concept and in practice; integrates facts, data, and best practices; employs interdisciplinary thinking; and recommends strategies that can help the world reset with a proactive wellness-based mindset.

## About the Global Wellness Institute

The Global Wellness Institute (GWI), a 501(c)(3) non-profit organization, is considered the leading global research and educational resource for the global wellness industry and is known for introducing major industry initiatives and regional events that bring together leaders and visionaries to chart the future. GWI positively impacts global health and wellness by advocating for both public institutions and businesses that are working to help prevent disease, reduce stress, and enhance overall quality of life. Its mission is to empower wellness worldwide.

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# Preface: What Is Wellness?

Wellness is a modern word with ancient roots. The key tenets of wellness as both preventive and holistic can be traced back to ancient civilizations from the East (India, China) to the West (Greece, Rome). In 19<sup>th</sup> century Europe and the United States, a variety of intellectual, religious, and medical movements developed in parallel with conventional medicine. With their focus on holistic and natural approaches, self-healing, and preventive care, these movements have provided a firm foundation for wellness today. Wellness-focused and holistic modalities have gained more visibility since the 1960s/1970s under the writings and thought leadership of an informal network of U.S. physicians and thinkers (such as Halbert Dunn, Jack Travis, Don Ardell, Bill Hettler, and others). As these have evolved, proliferated, and gone mainstream, they have informed the healthy-living, self-help, self-care, fitness, nutrition, diet, and spirituality practices that have become a flourishing wellness movement in the 21<sup>st</sup> century.

The Global Wellness Institute (GWI) defines wellness as: ***the active pursuit of activities, choices, and lifestyles that lead to a state of holistic health.***

There are two important aspects to this definition. First, wellness is not a passive or static state, but rather an “active pursuit” that is associated with intentions, choices, and actions as we work toward an optimal state of health and well-being. Second, wellness is linked to holistic health – that is, it extends beyond physical health and incorporates many different dimensions that should work in harmony (see figure).

Wellness is an individual pursuit – we have self-responsibility for our own choices, behaviors, and lifestyles – but it is also significantly influenced by the physical, social, and cultural environments in which we live.

Wellness is often confused with terms like health, well-being, and happiness. While there are common elements among them, wellness is distinguished by not referring to a static state of being (i.e., being happy, in good health, or a state of well-being). Rather, wellness is associated with an active process of being aware and making choices that lead toward an outcome of optimal holistic health and well-being.



## Wellness Is Multidimensional

**Physical:** Nourishing a healthy body through exercise, nutrition, sleep, etc.

**Mental:** Engaging the world with the intellectual mind.

**Emotional:** Being aware of, accepting, and expressing our feelings, and understanding the feelings of others.

**Spiritual:** Searching for meaning and higher purpose in human existence.

**Social:** Connecting and engaging with others and our communities in meaningful ways.

**Environmental:** Fostering positive interrelationships between planetary health and human actions, choices, and wellbeing.

GLOBAL WELLNESS INSTITUTE WHITE PAPER SERIES

**RESETTING THE WORLD WITH WELLNESS:**

# I: A New Vision for a Post COVID-19 Future

Ophelia Yeung & Katherine Johnston

APRIL 22, 2020



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## About the Authors

This white paper was prepared by Ophelia Yeung and Katherine Johnston, Senior Research Fellows at the Global Wellness Institute. Together, they have four decades of experience leading research and strategy development for businesses, universities, research institutions, and multilateral and government organizations under the auspices of SRI International, a Silicon Valley-based technology and innovation company. Since 2008, Ms. Yeung and Ms. Johnston have worked with the team at what has become the Global Wellness Institute to pioneer groundbreaking research on the global wellness economy.

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Quotation of, citation from, and reference to any of the data, findings, and research methodology from this report must be credited to “Yeung, O., and Johnston, K. (2020). *Resetting the World with Wellness: A New Vision for a Post COVID-19 Future*. Miami, FL: Global Wellness Institute.” For more information, please contact [research@globalwellnessinstitute.org](mailto:research@globalwellnessinstitute.org) or visit [www.globalwellnessinstitute.org](http://www.globalwellnessinstitute.org).

# COVID-19 is a wake-up call to focus on wellness.

COVID-19 is a wake-up call to the world. One moment people were going about their normal lives, jobs, school, and activities, and then in a matter of weeks, hundreds of thousands have died, millions have been infected, and half of the world’s population is in some form of lockdown. Never before has health and wellbeing declined so rapidly and simultaneously for so many people across the globe. The Coronavirus pandemic is exposing great health schisms between the world’s “haves” and “have nots.” Wealthy countries and communities with ample healthcare resources are much better positioned to deliver care to COVID-19 patients. The “haves” also include individuals who are in good health, because our own health and immune systems form the first line of defense against infectious disease. Indeed, healthy people have a good chance of mild symptoms and recovery from COVID-19, while those with chronic conditions – such as diabetes, heart disease, and compromised immune systems – are at high risk for severe illness and death.

The global response to stop the pandemic’s spread has necessitated unprecedented measures: stay-at-home orders, closure of schools and businesses, bans on social gatherings, travel restrictions, and so on. Families are separated, children cannot play outdoors, friends cannot meet, the faithful cannot worship together, and communities cannot gather to celebrate important events. The world’s population is living in fear and uncertainty, not only of physical illness and death, but also of the crumbling of livelihoods, communities, and economies. Millions are struggling under financial strain, losing jobs and income, unable to afford daily necessities, and despairing of their future. The suffering is widespread – from loneliness, isolation, and heartbreak, to anxiety, anger, and despair. More than ever, our resilience as individuals and as a society is vital for survival. Healthy minds, healthy habits, strong families, a caring circle of friends, and supportive communities all strengthen our fortitude to cope with adversity, help others, stay hopeful, and emerge stronger from this crisis. Wellness is never more important than in difficult times like these. **Wellness is the active pursuit of activities, choices and lifestyles that lead to a state of holistic health.<sup>1</sup> Our wellness is multi-faceted, encompassing physical, mental, emotional, social, environmental, and spiritual dimensions.** We are not whole or truly well when any of these foundations of life are missing or deficient; each dimension strengthens or weakens another.



## Wellness Is Multidimensional

**Physical:** Nourishing a healthy body through exercise, nutrition, sleep, etc.

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**Emotional:** Being aware of, accepting, and expressing our feelings, and understanding the feelings of others.

**Spiritual:** Searching for meaning and higher purpose in human existence.

**Social:** Connecting and engaging with others and our communities in meaningful ways.

**Environmental:** Fostering positive interrelationships between planetary health and human actions, choices, and wellbeing.

This integration of body, mind, and spirit, and the need to take care of our total selves, is rooted in ancient philosophies and cultures from both the East and the West.<sup>ii</sup> In the modern context, wellness is different from healthcare. Our healthcare systems use a *pathogenic* and reactive approach, focused on causes, consequences, diagnosis, and treatment of diseases and injuries; in contrast, wellness is a *salutogenic* and proactive approach, focused on prevention, healthy lifestyles, and pursuit of optimal wellbeing.<sup>iii</sup> Ultimately, a solid foundation for wellness helps us prevent and overcome disease, both at present and in the future. It strengthens our spirits and our resilience to weather COVID-19 and other challenges.

Wellness requires individuals to be intentional, proactive, responsible, and empowered to engage in healthy behaviors. However, the environments we live in can limit and influence our choices, and external circumstances can make it difficult for us to practice healthy habits. Families and friends, communities, businesses, and governments all shape our lives and determine whether we have access to wellness. Some of the suffering related to COVID-19 can be lessened if we are able to strengthen our wellness foundations. These difficult times show us where we should place our priorities in the future, and where wellness can offer a roadmap for healing and growth.

## Our wellness foundations have been weakened by deep and growing ill-health in our society and economy.

**Unhealthy lifestyles lead to rampant chronic disease.** Although our lifespans have increased over the last century, we are not living those added years in good health. Noncommunicable/chronic diseases are now the world's leading cause of death, responsible for 71% of deaths globally.<sup>iv</sup> In the current crisis, chronic disease weakens our defenses against COVID-19. For the longer term, chronic disease is public health's number one challenge<sup>v</sup> and has been called an "emerging pandemic."<sup>vi</sup> It inflicts immense suffering on individuals and families, reduces quality of life, affects business operations, raises healthcare costs, and imposes enormous economic costs on society.<sup>vii</sup> Sadly, much of this chronic disease and the related deaths are preventable. At least 80% of heart disease, stroke, and type 2 diabetes, as well as 40% of cancers, are linked to unhealthy choices and lifestyles, such as sedentary behavior, poor eating habits, smoking, lack of sleep, stress, environmental toxins, etc.<sup>viii</sup>

**Modern value systems drive stress, anxiety, and burnout, and are weakening our overall resilience.** In a world largely driven by capitalism, efficiency, and profit-seeking, humans are often valued as no more than a factor of production or a cog in a machine. Our modern value systems lower mental wellness across the board. The poor and most vulnerable members of society face the daily trauma of survival and subsistence, alongside immense work-related risks and insecurities. Meanwhile, the wealthier and privileged have adopted an increasingly competitive, materialistic, and 24/7 work culture that brings rampant stress and burnout, without increasing happiness or life-satisfaction. Mental illness is now on the rise around the world. In 2017, there were an estimated 1.1 billion cases of mental and substance use disorders (affecting around 15% of the world's population),<sup>ix</sup> and the true scale is likely higher due to stigma and widespread underreporting. Depression, which increased by more than 18% from 2005-2015, is now the leading cause of illness and disability.<sup>x</sup> Beyond clinical mental illness, all types of mental, emotional, and psychological issues – such as stress, anxiety, and burnout – are



on the rise across all population segments. These challenges have immense mental and physical health impacts. They decrease our coping skills and weaken our resilience to deal with crises – including COVID-19 and its enormous economic and social ramifications.

**Loneliness and social isolation reduce our ability to comfort and help each other.** According to a recent international study, 9% of adults in Japan, 22% in the United States, and 23% in the United Kingdom report always or often feeling lonely or socially isolated.<sup>xi</sup> The causes of isolation and loneliness are varied and complex, and are often linked with the rise of modern, individualistic, Westernized, technology-driven, and more affluent lifestyles. Global demographics are shifting toward urban living, later marriages, fewer births, and fewer inter-generational households. More people are living alone across all age groups.<sup>xii</sup> Neighborhoods and communities are increasingly segregated by socioeconomic class, race, and stage of life. Membership in churches, clubs, and other social and community groups is declining around the world. Research increasingly points to a worldwide decline in social capital, with decreasing trust in government, fellow citizens/neighbors, and strangers alike. The experience and effects of isolation are amplified in the current physical distancing and quarantining requirements. All of this social disconnection has major health consequences; loneliness is associated with a greater risk of heart disease, depression, anxiety, dementia, and premature death.<sup>xiii</sup> Without healthy relationships and social support networks, we cannot be well, whether during COVID-19 or into the future.

## Our physical and socioeconomic environments are working against healthy lifestyles.

Many external and systemic factors in our lives and environments shape our behaviors and our ability to stay healthy. Recent research indicates that up to 80-90% of our health outcomes may be due to external and environmental factors, including health systems, housing, neighborhoods, transportation, education, culture, families and friends, and much more.<sup>xiv</sup> We cannot stay healthy and well without creating environments that support our wellness rather than reducing it.

**Our healthcare system is failing to keep us healthy.** Health systems around the world are unprepared to care for the rapidly growing number of aging, chronically ill, and mentally ill patients. Specific problems vary from country to country, but mainly involve widespread issues with costs, health inequity, and unequal access to care. Health expenditures have already reached roughly 10% of global GDP and are rising faster than economic growth.<sup>xv</sup> And yet, these ever-growing expenditures are failing to stem the rising tide of chronic disease and poor mental health, because our existing health system is mainly a “sick care” system. It focuses on diagnosis and treatment of diseases and injuries, acute care, and pharmacological solutions, rather than using a holistic approach toward prevention and healthy lifestyles.

**Our built environment facilitates unhealthy lifestyles.** The major technological advances that shape modern living – from automobiles and household appliances to computers and mobile phones – mostly encourage sedentary behaviors. We can now stay on our sofas while we shop, buy food, socialize, or get news and entertainment. The proliferation of auto-centric infrastructure and urban sprawl often makes it easy to drive everywhere but very difficult to walk or bike. Our car culture also reinforces certain design conventions that discourage social interaction (e.g., less public space and green space, lack of sidewalks and trees, high-speed/wide roadways, lower-density building, single-use zoning, etc.). More and more people now

live and work in obesogenic built environments that reinforce a sedentary and even anti-social lifestyle – favoring driving over biking, sitting over walking, taking elevators rather than the stairs, texting rather than in-person conversation, and watching videos rather than being outdoors. It is no wonder that one in four adults do not get sufficient physical activity, obesity has nearly tripled worldwide since 1975, and 39% of adults are now overweight<sup>xvi</sup> – all key risk factors that are directly linked to the rise of chronic disease. Meanwhile, car dependence and modern conveniences also increase the toxins in our air, water, soil, and food, negatively impacting our health. Pollution is now the largest environmental cause of disease and premature death.<sup>xvii</sup>

**Inequality amplifies our poor health.** Income inequality is on the rise, both within countries and across the globe,<sup>xviii</sup> and with it, an unequal access to wellness. The poor and marginalized are exposed to the worst environmental risks and have the least access to healthcare, fresh foods, recreational facilities, and other resources that support healthy lifestyles. They face a vicious cycle of poor health and poverty that is passed down through generations.<sup>xix</sup> At the global level, chronic disease was once considered a rich country problem, but not anymore. Now, more than three-quarters of the world’s chronic disease-related deaths occur in low- and middle-income countries.<sup>xx</sup> Globally, our ever-rising healthcare expenditures are a huge economic burden that diverts resources from the alleviation of poverty and inequality. Four major chronic diseases and mental illness are projected to reduce global economic output by \$47 trillion from 2011-2030, and this loss represents enough money to eradicate poverty among the 2.5 billion people who live on less than two dollars a day.<sup>xxi</sup>

## Wellness offers a new vision for a post COVID-19 world.

The response to COVID-19 is unprecedented because it compels us to work together to combat a global public health issue. Government decisions are now driven by the imperative to contain the physical and economic suffering of citizens. Businesses, communities, and individuals are urged to change their behaviors to contain the virus – from working and schooling at home, to hand-washing and wearing masks. Imagine if we applied this same resolve and collaborative action in the aftermath of the crisis, to address the pervasive and immense physical, mental, social, and environmental unwellness around us. There is much that we can do to strengthen our wellness foundations and build resilience for ourselves, our families, and our communities – but to do so will require us to shift our priorities and change our behaviors at all levels.

### Lead with individual responsibility and agency.

The most important step toward wellness is to start in our own lives. We need to recognize that we cannot live a full life without a healthy body, mind, and spirit, and that we are connected to other people and to our natural world. As individuals, we need to take the responsibility to learn and practice essential healthy lifestyle habits. We need to nourish our bodies with nutritious food, stay strong and agile through exercise and movement, get adequate rest and sleep, and provide our minds with quiet time for contemplation and reflection. We need to nurture relationships by practicing love, compassion, and caring with family, friends, and neighbors; in our workplaces and schools; and in our wider communities. We need to be aware that our actions and choices have impacts on other people and on our planet. Wellness is about

shifting our individual mindsets and behaviors – instead of just treating disease and reacting to adversity, we need to be engaged and proactive in leading a full, healthy, and thriving life. When we are empowered, we can take care of ourselves and our family, and we have the capacity to help our friends and our community.

## **Community and business leaders can be wellness leaders.**

Our individual behaviors are shaped by the people, community, and culture around us. In a neighborhood dominated by crime, joining gangs becomes a default for many youth. In a company that runs on a “profit above all” motto, employees may be encouraged to become ruthless and unethical. If we are surrounded by people who are stressed and angry, or who do not value relationships, we will be affected and may even become like them. Therefore, religious, business, and community organizations have a responsibility to shape and promote culture of wellness. This starts from the top-down, with leaders who model healthy behaviors and use a wellness mindset to drive their decision-making and values. Because so many people do not understand wellness or have the knowledge to practice healthy lifestyles, businesses and community organizations can be an important and trusted source of education and advocacy. Local leaders can also help their communities by improving the basic resources for living a healthy life – such as access to fresh and nutritious foods, basic preventive healthcare services, recreational and green space, and exercise and mental wellness programs. These resources are mostly local; therefore, schools, businesses, and community and religious organizations are all on the front lines of expanding access for their members, employees, and stakeholders.

## **Governments can adopt wellness as a core value for public policy and investments.**

Gross domestic product, employment, trade, and investment have long been the primary decision drivers for governments and key metrics of “success.” In the current crisis, it is more apparent than ever that economic growth is no guarantee of individual or societal health and wellbeing. As our economies and communities grow ever more polarized and unequal – and as the poorest and most vulnerable suffer most in the current pandemic – the saying “health is the new wealth” is more true than ever. With rising epidemics of chronic disease and mental illness, aging populations, and unsustainable healthcare costs all around the world, wellness is the only rational government approach to improving resilience and keeping citizens happy and healthy. Currently, wellness is not well understood by governments. Wellness is complementary to our healthcare systems and public health policies, but it is not the same thing. Wellness cuts across siloed policy domains and government departments, and it depends upon proactive approaches in policy areas that are not typically viewed as being related to health. At the broadest level, our transportation and infrastructure, environmental policies, labor policies, educational system, housing, and general economic system all impact our wellness both directly and indirectly (by influencing our behaviors). Our ability to practice healthy eating is influenced by national policies that favor industrialized farming and food production, as well as local zoning policies that determine whether fresh food is farmed locally or available in neighborhood markets. Similarly, to stay physically active, we need access to local gyms, parks, and recreational facilities, as well as urban planning, infrastructure, transportation policies that prioritize active transportation (i.e., walking, biking). To strengthen our wellness foundations and create wellness-supporting environments, governments must put human health and wellbeing at the forefront of their priorities and decision-making, using wellness as a lens through which they make public policies and investments at all levels (from national to local).

## Endnotes

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GLOBAL WELLNESS INSTITUTE WHITE PAPER SERIES

**RESETTING THE WORLD WITH WELLNESS:**

# II: Healthy Built Environments for Healthy People

Ophelia Yeung & Katherine Johnston

APRIL 29, 2020



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## About the Authors

This white paper was prepared by Ophelia Yeung and Katherine Johnston, Senior Research Fellows at the Global Wellness Institute. Together, they have four decades of experience leading research and strategy development for businesses, universities, research institutions, and multilateral and government organizations under the auspices of SRI International, a Silicon Valley-based technology and innovation company. Since 2008, Ms. Yeung and Ms. Johnston have worked with the team at what has become the Global Wellness Institute to pioneer groundbreaking research on the global wellness economy.

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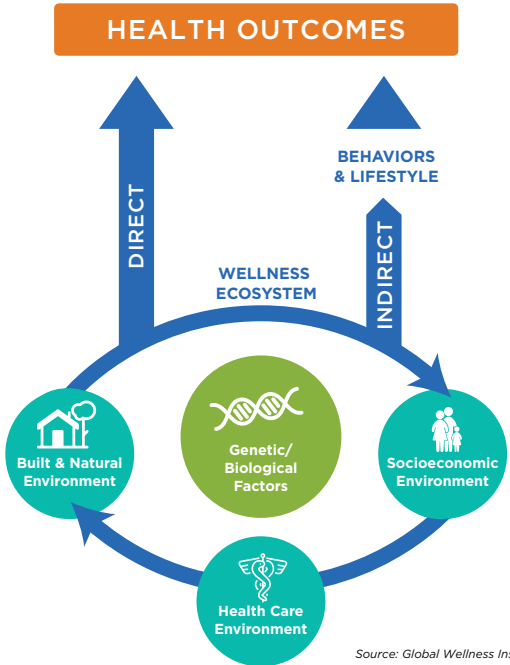
# Our homes and communities represent our most important investment in our health.

In an unprecedented global public health response to stop the spread of COVID-19, half of the world’s population is now living (or has lived) in some form of lockdown in their homes and immediate neighborhoods. Our homes may be our castles to defend against the pandemic, but they have also become our prisons, where we must remain with our families and roommates, or alone. Our homes may normally be sanctuaries where we can relax, sleep, or entertain, but now they have also become our primary places of work, study, play, exercise, creativity, and caring for others. COVID-19 is forcing us to see our homes and neighborhoods in a new light. Where we live has an outsized influence on our wellness in all dimensions (physical, mental, social, emotional, spiritual, and environmental – see *Preface*), affecting our preparedness and resilience to face today’s challenges and beyond.

The concept that our built environment influences our health is not new. In the last two centuries, our urban planning, infrastructure, and building design were shaped by the imperative to control the infectious disease epidemics that accompanied urbanization and higher-density living during the Industrial Revolution.<sup>i</sup> New York City, now an epicenter of the COVID-19 outbreak, was plagued by repeated epidemics of cholera, tuberculosis, and yellow fever in the 19<sup>th</sup> century, when exponential population growth led to haphazard development, overcrowded tenements, pest infestations, waste-filled streets, and contaminated water supplies (i.e., a hotbed for infectious disease). Then, as now, the poor were exposed to the highest risks of illness and death. By the mid-20<sup>th</sup> century, infectious disease was brought under control through deliberate environmental design changes, and not by medicine (most antibiotics were not yet invented). Key strategies in New York included improving street sanitation and sewage systems; building a new aqueduct to deliver clean water; banning the construction of dark, airless buildings; mandating building setbacks from streets to increase the flow of light and fresh air; and creating Central Park as the “working man’s lungs.”<sup>ii</sup>

While infectious disease is no longer the primary cause of death globally, our homes, buildings, neighborhoods, and cities continue to play an enormous role in our health outcomes and longevity.<sup>iii</sup> Recent research on the determinants of health indicates that external and environmental factors may be responsible for up to 80-90% of our disease risks and health outcomes.<sup>iv</sup> Those who are very young, elderly, disabled, or poor are particularly vulnerable to these external factors.<sup>v</sup> In the United States, the neighborhood or county where we live can

Up to **80-90%** of our health outcomes depend upon the external and environmental factors in our wellness ecosystem



Source: Global Wellness Institute



predict our life expectancy and manner of death<sup>vi</sup>, and these differences persist even after adjusting for socioeconomic and demographic factors.<sup>vii</sup>

A complex web of external factors (access to healthcare, socioeconomic factors, and our natural and built environments) form a “**wellness ecosystem**” that can augment or mitigate our genetic disposition for disease. **Our wellness ecosystem has a *direct* effect on our health by transmitting communicable and environmental diseases. It also *indirectly* affects our health by influencing our behaviors and lifestyles.** It can make healthy habits easy, convenient, and the “default” option – or not.

## Our indoor and outdoor environments threaten our health.

**Buildings can spread disease.** COVID-19 has brought renewed attention to the role that buildings play in spreading communicable disease. Key transmission pathways include air transfer, high-touch surfaces, and occupant density and activity. These concerns are heightened in high-risk environments (e.g. hospitals), and high-density and shared spaces where we spend many hours or interact with many people (workplaces, schools, retail centers). Prevention measures in buildings may include windows that open to improve airflow, better ventilation systems and humidity management, and advanced antimicrobial coatings and surfaces. Spatial reconfiguration and having enough space to spread out people in homes, workplaces, schools, and shops – as well as in high-traffic areas like elevators, corridors, bathrooms, and cafeterias – may be a luxury in high-cost cities, but these features and amenities may no longer be a luxury from a public health perspective in a post COVID-19 world.<sup>viii</sup>

**Indoor air can make us sick.** The World Health Organization identified indoor air quality and “sick building syndrome” as a health major concern over 30 years ago, and indoor air pollution can be 2-5 times worse than outdoors.<sup>ix</sup> In lower income countries, the use of coal, kerosene, and biomass fuels for cooking and heating causes nearly 4 million premature deaths every year.<sup>x</sup> In buildings around the world, people are exposed to harmful substances such as polyvinyl chloride (PVC) and phthalates, flame retardants, volatile organic compounds (VOCs), antimicrobials, bisphenol A (BPA), and nanomaterials, which are embedded in modern construction techniques, materials, and products. Sick buildings can also result from mold and fungus infestation. These issues do not receive adequate attention during normal times, but they could be deadly or cause serious health problems during extended lockdowns, when more people are confined to their homes and in indoor environments.

**Poor outdoor environments are a major health risk.** Air, water, soil, and food pollution have reached an epic scale, threatening human health as well as planetary health. Pollution is the largest environmental cause of disease and was responsible for 9 million avoidable premature deaths worldwide in 2015, with over 90% occurring in low- and middle-income countries.<sup>xi</sup> Air pollution causes the majority of these deaths by increasing the incidences of asthma, lung cancer, heart disease, stroke, and other chronic diseases.<sup>xii</sup> A recent Harvard University study found that higher rates of air pollution are correlated with higher COVID-19 deaths in the United States.<sup>xiii</sup>

# The built environment shapes our behaviors and lifestyles.

**Make movement the default option in our daily lives.** Our modern built environment is often described as obesogenic because it encourages sedentary behavior (e.g., driving over walking, taking elevators instead of stairs, etc.). In congested and sprawling urban areas, urban planning increasingly prioritizes vehicular flow over people – e.g., widening of roads, stripping of sidewalks, and high-speed roadways that are unfriendly to pedestrians and cyclists. To plan for reopening after the COVID-19 lockdown, cities will have to change the way people commute and reduce reliance on crowded public transit. Milan is beginning to reconfigure 22 miles of local streets by adding bike lanes, widening sidewalks, and lowering speed limits.<sup>xiv</sup> Other major European cities, such as Paris, Berlin, Brussels, and Budapest, are making similar plans. Some of these conversions were already planned for the longer-term; COVID-19 creates an opportunity and urgency to reorient transit planning to embed more walking and cycling into daily life, with the simultaneous benefits of reducing the risks of transmitting infectious disease, encouraging active transit to reduce the risks of chronic disease, and reducing pollution.

**Provide free and accessible spaces for active recreation.** As modern life becomes ever more sedentary, people who want to stay active and healthy have to find time to do so in their leisure and recreation time. The private gym, health club, and fitness industry has been growing rapidly, but these facilities are only affordable and accessible to those who live in wealthier, developed countries and urban areas, and they serve less than 4% of the world's population.<sup>xv</sup> Needless to say, these private indoor facilities are mostly closed during the COVID-19 lockdown. Public spaces and outdoor recreational amenities that enable physical activity are more important as ever. While people may not be able to use public swimming pools, athletic fields, and playgrounds until physical distancing requirements are relaxed, they can still exercise in parks, jogging/biking paths, hiking trails, and public squares and plazas. However, these recreational spaces need to be free and close to home. Numerous studies have shown that proximity to parks is associated with higher levels of physical activity, especially for seniors, children, and disadvantaged populations.<sup>xvi</sup> The wellness benefits of recreational infrastructure extend beyond just exercise; they also support social connections and enhance mental well-being.

**Use nature's power to improve mental, emotional, and physical well-being.** Green spaces and contact with nature are essential for our mental, emotional, psychological, and physical well-being. Positive impacts include buffering/reduction of noise and air pollution; increased physical activity; improvements in cognitive abilities, productivity, attention, mood, and healing; as well as reduction of aggression, violence, and negative feelings.<sup>xvii</sup> During the current lockdown, many people are cut off from nature, especially in large cities. Indoor natural elements such as potted plants, pictures of nature, and views of the outdoors can also have positive impacts on healing, stress, mood, and cognitive functioning.<sup>xviii</sup> In a post COVID-19 world, there are opportunities to incorporate biophilic design into buildings, neighborhoods, and cities;<sup>xix</sup> leverage ecological assets such as rivers, lakes, and riparian habitats to create greenways and multi-use trails in urban environments; and increase access to nature close-to-home by investing in street trees, pocket parks, and community gardens.<sup>xx</sup>

**Create environments that promote better sleep, rest, and stress reduction.** Sleep is a cornerstone of good health, yet it is constantly compromised by issues in our built environment, including artificial lighting that disrupts circadian rhythms, a lack of natural light indoors, poor temperature control, and noise pollution.<sup>xxi</sup> When we are awake, it is often difficult to find mental respite, with a constant background of artificial sounds, lights, and distractions from traffic, airplanes, and machinery; heating and cooling systems; digital displays; and electronic noise. Architects, engineers, and urban planners can play an important role in designing built environments that encourage sleep and rest, through measures such as soundproofing and noise reduction in buildings, use of circadian lighting, urban traffic control, etc.

**Design spaces that encourage prosocial behavior and a sense of community.** Loneliness and social isolation are on the rise everywhere, while social trust is on the decline, and our built environment plays a major role in the fraying of communities.<sup>xxii</sup> Across the world, neighborhoods and homes are increasingly segregated by income, class, race, and life stage, while our car-centric infrastructure has reduced public spaces and chances for spontaneous social encounters with neighbors. Homogenous modernist buildings, “cookie cutter” housing, and retail and entertainment districts that look alike from Shanghai to Rio de Janeiro encourage mass consumption over community, authenticity, culture, spiritual life, and connection. Yet, trust in our neighbors and strong communities are more important than ever. During times of crisis, they may be our only means of help and are vital to our survival. Neighborhoods and cities can be designed to encourage connection and community. Features such as public plazas and parks, sidewalks, mixed-use spaces, higher density, housing diversity, vernacular architecture, etc., can encourage pedestrian and street activities, public gatherings, and spontaneous meeting of neighbors. Studies show that walkability and attractive public spaces can increase trust and civic engagement.<sup>xxiii</sup> Social trust – in our neighbors, local officials, and governments – is essential during the current crisis as well as in the new world that we need to rebuild after COVID-19.

**Underpin healthy behaviors with good digital infrastructure.** Technology is generally no substitute for face-to-face social connection, time in nature, and exercise and recreation in real physical spaces – but in the current crisis it is playing an outsized role in allowing us to engage in all of these activities virtually and remotely. Reliable, high-speed Internet underpins our ability to work or school from home, connect with friends and family via video calls, use streaming/on-demand exercise programs, shop for food online, and even visit a doctor or therapist via telehealth and teletherapy platforms. One recent study has shown that the digital divide is a key factor in compliance with stay-at-home directives during COVID-19, and those with high-speed Internet at home are better able to support these critical public health efforts.<sup>xxiv</sup> Broadband Internet infrastructure is most lacking in the rural, lower-income, and marginalized communities that are already facing higher risks of economic and social distress during the current crisis.<sup>xxv</sup> In short, the COVID-19 response shows that inequitable access to digital infrastructure also translates into inequitable access to wellness.

## **We must start to build our homes and communities on a strong wellness foundation.**

Our homes and communities are essential foundations to build healthy lives, because the built environment directly and indirectly impacts our wellness. Our homes typically represent our most important personal investment and one of our largest expenditures (about 20% of all global consumer spending, or more than \$8 trillion each year).<sup>xxvi</sup> Globally, over 11% of GDP (or nearly \$9 trillion in 2015) is spent on infrastructure and real estate that can shape our health.<sup>xxvii</sup> Therefore, it is only logical that what we build should also be an investment that enhances rather than reduces our wellness. As public and environmental health expert, Richard Jackson, reminds us, “the built environment is the embodiment of what we love, our imagination, and our will. It is what we value and reflects what and whom we care about.”<sup>xxiii</sup>

## **Empower communities to lead the movement for a healthy built environment.**

Our infrastructure, buildings, and homes are mostly planned and regulated at the community level. City and local officials are typically responsible for key decisions on configuration of neighborhoods; design of streets and sidewalks; zoning and location of homes, schools, workplaces, public services, and commerce; provision of recreational infrastructure and public spaces; protection of green space; and public and active transit options. The decision drivers for these costly infrastructure projects usually include economic projections, cost effectiveness, demographic models, transportation efficiency, and general quality of life – but human health is rarely considered beyond basic safety issues (e.g., preventing fires or motor vehicle accidents). Most people do not understand the enormous health impacts of our built environment: how it influences our behaviors on a day-to-day basis (e.g., our daily movements and physical activity, whether we know and see our neighbors, our contact with nature, and our trust in our community), and how it contributes to disease and premature death. Citizens, consumers, and community leaders all need to be educated about the important linkages between wellness and the built environment, because they can lead the movement toward better policies, zoning, planning, and investment decisions that will reflect our most important health and wellness priorities.

## **Business are key partners in building healthy places.**

We need to reframe our concept of the professions, businesses, and industries that are part of our wellness and public health landscape. Urban planners, real estate developers, architects, designers, transportation planners, and the construction and building materials industries all shape the built environment that determines our health outcomes, but we do not currently think about these fields as being health-related at all. Collectively, we must shift our thinking: buildings and infrastructure are as important as immunizations; pocket parks, paths, and plants are as beneficial as prescriptions; friends and neighbors are more important than Fitbits. The professionals and industries involved in shaping our built environment and our related health behaviors should be approached as key partners for building healthy homes and communities. With wellness real estate emerging as a highly promising niche in the global real estate market, there is a strong business case for private sector partners to engage in this movement.<sup>xxix</sup>

## **Governments can mitigate global health crises by investing in wellness-enhancing environments.**

Despite ample evidence that our built environment contributes to chronic disease, mental unwellness, social disconnection, and premature death, these issues have not received adequate attention from governments. We spend trillions of dollars every year on “sick care,” and these expenditures are rising at an unsustainable pace around the world, largely trying to fix the health and wellness problems that are enabled by our living environments. Meanwhile, only 4% of global health expenditures are spent on public health, risk reduction, and prevention.<sup>xxx</sup> This lop-sided public investment calculus needs to change. Smart policies and investments in our built environment can prevent disease and improve public health and well-being. Governments can support scientific research on the health impacts of building materials and design, and must update and enforce regulations and guidelines for infrastructure, building design, construction practices, and materials in order to prioritize human health concerns. Over a century ago, governments introduced building codes, sanitation standards, and fire safety ordinances as public health measures to prevent accidental deaths/injuries and the spread of infectious diseases; today, new regulations will be needed to mitigate the spread of COVID-19 and other future epidemics. In particular, governments need to prioritize healthy design and amenities in public and affordable housing projects and marginalized communities, in order to bring the benefits of wellness-enhancing built environments to the most vulnerable and at-risk populations.

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# COVID-19 has exposed all that is unwell with work.

Every day, more than 3 billion people around the world go to work.<sup>i</sup> In a lifetime, the average person will spend at least 90,000 hours working.<sup>ii</sup> Some lucky workers may find meaningful purpose through their jobs, but most people work just to survive and feed their family. In the last few decades, globalization has created economic growth and jobs that lifted millions of families out of poverty; and yet, workers' health and wellness is far from optimal across all dimensions (physical, mental, social, emotional, etc. – see *Preface*). In this same time span, the world has also become more unequal, as those with the most education and resources have reaped the most benefits from an economic order shaped by capitalism, efficiency, and rapid technological change. According to the International Labour Organization (ILO), having a paid job is “not a guarantee of decent working conditions or of an adequate income.”<sup>iii</sup>

In just a few short months, COVID-19 has upended work and life around the world, destroying livelihoods and exposing the deep inequities, uncertainties, and dangers in our working lives. As writer Damian Barr recently tweeted: “We are not all in the same boat. We are all in the same storm. Some are on super-yachts. Some have just one oar.”<sup>iv</sup> In mid-April 2020, 81% of the world's workers were living in countries with recommended or required workplace closures.<sup>v</sup> As the pandemic and economic devastation unfold, nearly every worker is affected, but in vastly different ways. Hundreds of millions have lost their jobs, from garment workers in Bangladesh to restaurant servers in Rome. The misfortune is falling disproportionately on those employed in retail, tourism and hospitality, manufacturing, transportation, and other service sectors, where work must be done on-site or in close contact with other people. Many of these jobs were low-pay to begin with and employ a large share of vulnerable and marginalized people, especially women, lower-skill, informal, and contingent workers.

The misery in developing countries is especially acute when overlaid on existing fragilities. Sub-Saharan Africa will see its first recession in 25 years; massive job losses and economic contraction could spark a food security crisis across the continent.<sup>vi</sup> Meanwhile, South Asia's economy is heading toward its worst performance in 40 years, and a sudden, large-scale loss of low-paid jobs in cities may drive an exodus that will worsen rural poverty.<sup>vii</sup> In Latin America and the Caribbean, unemployment could rise by 10%, increasing the number of people living in poverty to 220 million (one-third of the region's population).<sup>viii</sup> Across the world, the pandemic could push over *half a billion* more people (or 8% of human population) into poverty<sup>ix</sup> – a number so staggering that it is beyond comprehension, and the first increase in global poverty since 1990. Everywhere, people working in the informal economy, in low-pay and “gig economy” jobs, and those living in countries with limited resources and weak social safety nets will suffer the most.

COVID-19 has exposed the vast divide between the knowledge/professional/creative class of workers and everyone else. Indeed, the people who can work safely and keep their jobs during the pandemic are the ones who can work remotely, from home and via the Internet. Meanwhile, the frontline workers in the “real economy” – people who are producing essential goods or performing vital services – are exposed to risk of infection while working in hospitals, care homes, pharmacies, warehouses, food processing plants, kitchens, and grocery stores. Working parents in essential jobs struggle with childcare while schools are closed. Others are working without adequate protective gear, distancing/disinfecting protocols, or paid sick leave.

These frontline workers face a daily decision between going to work and risking their health, versus staying home and risking their livelihoods. It is a sad state of affairs in the United States when warehouse workers, grocery employees, and contractors at Amazon, Whole Foods, Instacart, and Shipt united in a May 1 (International Workers' Day) strike to demand more personal protective equipment, professional cleaning services, and hazard pay from their employers.

Even the most fortunate workers – i.e., white collar workers who can perform their jobs remotely – are not immune to misery. The shift from working in offices to working at home widens the inequity between those who have a home environment conducive to working productively (e.g., quiet work space, high-speed Internet access, good technology, etc.) and those who do not. The blurring of boundaries between work and personal lives has created new issues while aggravating underlying problems related to stress, overwork, burnout, workplace abuse, work-life balance, childcare, and more.

Long before the current pandemic, work has been physically unhealthy, mentally unwell, and economically unstable for the majority of the world's workers. COVID-19 has not only made these situations more precarious, but also brought them to the forefront of public attention. Will work change for the better for workers after COVID-19? This question is being asked all over the world, as the ills in our workplaces, work lives, and working conditions become magnified and more devastating.

## Dangerous, unhealthy, inequitable, and stressful working conditions are neither ethical nor sustainable.

**Work is a major cause of illness, injury, and death.** An estimated 2.8 million people died from occupational injuries or work-related diseases in 2015 (5% of all deaths globally), and an additional 374 million workers suffered from non-fatal occupational accidents.<sup>x</sup> Work-related factors are responsible for 37% of back pain, 16% of hearing loss, 11% of asthma, and 9% of lung cancer.<sup>xi</sup> Among work-related fatalities, the biggest killers are circulatory/cardiovascular diseases and stroke (31%), cancers (26%), respiratory diseases (17%), and occupational injuries (14%).<sup>xii</sup> Communicable disease is also a major cause of work-related death (9%), and especially in developing regions (e.g., 30% of work deaths in Sub-Saharan Africa and 13% in Middle East/North Africa). The rate of work-related communicable illnesses and deaths is likely to be much higher this year due to COVID-19. While the overall prevalence of COVID-19 has been notoriously difficult to track, much less where people are becoming infected, work-related transmission is a major factor, especially for those in healthcare. For example, an estimated 20% of registered COVID-19 cases in Spain,<sup>xiii</sup> and 10-20% of cases in the United States,<sup>xiv</sup> are among healthcare workers.

The workers most vulnerable to illnesses, accidents, and death are typically the poorest, least informed, least trained, and least protected, including women, child laborers, disabled workers, migrant workers, ethnic minorities, and those in the informal economy. During COVID-19, frontline workers face a constant risk of disease at work, and then go home and expose their families as well. Beyond just healthcare, these essential jobs include custodians, sanitation workers, supermarket workers, delivery and warehouse workers, home care workers, food

processing workers, farm workers, etc. Even in normal times, this portion of the workforce has little to no protection for their health and safety while at work. Underlying conditions in these jobs – from working in close quarters and infrequent access to bathroom breaks, to a lack of paid sick leave or adequate healthcare – exacerbate the health risks faced by essential workers. And, the current crisis has exposed that existing occupational safety and health regulations do not even protect workers against airborne infectious diseases.<sup>xv</sup> In most places, employers are not required to enforce physical distancing measures or provide basic personal protective equipment or hygiene supplies for their workers.

Even before COVID-19, many jobs and workplaces have exposed workers to physical health hazards and risks – for example, nurses risking back injuries from lifting heavy patients; office workers with carpal tunnel syndrome; truck drivers facing road accidents; and factory workers dealing with hazardous chemicals, heavy equipment, or loud noises. Not only do work-related injuries, diseases, and fatalities bring immense suffering to workers and their families, but they also represent massive economic losses to businesses, communities, and the overall economy. Globally, the economic costs of work-related illness and injury have been estimated at between 1.8%-6.0% of GDP across various countries, or at least \$3 trillion worldwide.<sup>xvi</sup> In the current crisis, poor health and disease among frontline workers depletes our ability to fight the pandemic. Over the long term, we must protect the health of our workforce in order to recover and grow.

**Employment insecurity puts workers' health and well-being at risk.** The ILO estimates that COVID-19 will cause the loss of more than 300 million full-time jobs in the first half of 2020.<sup>xvii</sup> Job loss figures alone cannot convey the magnitude of impacts given the widespread economic insecurity leading up to the crisis. In 2019, 19% of all workers did not earn enough income to lift themselves out of extreme or moderate poverty (\$3.20 per day in purchasing power parity terms).<sup>xviii</sup> Even in middle- and higher-income countries, many people report that they live paycheck to paycheck – including 52% in Latin America, 38% in North America, and 30% in Asia-Pacific according to a 2019 survey.<sup>xix</sup> Contingent, part-time, temporary, irregular, informal, and unpaid work arrangements are rising around the world.<sup>xx</sup> Over 61% of workers globally work in the informal economy, with higher shares in developing and emerging nations, in rural areas, and among younger workers.<sup>xxi</sup> A job in the formal economy is no guarantee of good working conditions either. According to Gallup, only 29% of working age adults across 143 countries work at least 30 hours a week for an employer who provides a regular paycheck – what Gallup calls a “good job.” The share of “good jobs” varies across regions (from 42% in North America, to 14% in Sub-Saharan Africa), and the gender gap is wide (36% of men versus 21% of women).<sup>xxii</sup>

Workers in informal, temporary, contingent, and gig jobs are most vulnerable to economic shocks like COVID-19. The ILO estimates that the first month of the crisis alone resulted in a 60% decline in earnings for informal workers globally. These workers lack access to healthcare services, health insurance, and social protections, and have no oversight for their workplace health and safety risks. Most have no possibility of working from home, no sick leave, and no replacement income in case of sickness or lockdown.<sup>xxiii</sup> The overcrowded and poor housing conditions among the world's 164 million migrant workers have become a major risk for disease transmission, from Singapore, to Qatar, to Canada.<sup>xxiv</sup> Over their lifetimes, these workers have a limited capacity to save, invest in housing, or consume goods and services, which has long-term impacts on economic recovery and growth. In a short time, COVID-19 has exposed the gaping holes in social protections for informal and contingent workers, in rich and poor countries alike.<sup>xxv</sup> While many countries are now scrambling to provide short-term support, all societies must work on improving healthcare, economic security, and social protections for the working poor and informal/contingent/migrant workers.

**Workers suffer from rampant mental stress and burnout.** Even before COVID-19, workplace stress, burnout, and disengagement have been rising around the world. In May 2019, the WHO expanded its definition of “burnout” in the *International Classification of Diseases* to recognize it as an “occupational phenomenon” and link it to chronic workplace stress.<sup>xxvi</sup> In a 2019 global survey, 87% of workers said they are stressed in their workplace, and 12% felt their stress is unmanageable, with 64% claiming to work in an “always on” environment.<sup>xxvii</sup> The most recent Gallup World Poll found that 18% of employees are actively disengaged at work.<sup>xxviii</sup> Key factors driving employee disengagement and burnout around the world include economic uncertainties (e.g., people feel that they are stuck in jobs they do not like); management styles (e.g., top-down or “command-and-control” management); and poor workplace cultures (e.g., culture of overwork, or emphasis on personal relationships over good performance). Disengaged and burned-out employees are less productive, have more on-the-job accidents, miss more workdays, and quit at a higher rate than engaged employees. They are also more likely to steal from their company, negatively influence their coworkers, and drive customers away.<sup>xxix</sup>

In a crisis like COVID-19, issues of work-related stress and burnout are amplified. Millions are facing the immense distress of lost income, lost jobs, and falling into poverty. Millions more face the stress of risking their health when they report to work at essential/frontline jobs each day. Even the most fortunate white collar workers are seeing their mental wellness suffer, as they face the stress of working from home for the first time, with little support or resources from their employers, while they juggle childcare, schooling, and other work-life challenges. Women are shouldering a disproportionate share of these burdens and related stresses. Among informal economy workers, 53% of women are currently working in medium-high to high-risk sectors (as compared to 44% of men).<sup>xxx</sup> Women represent 70% of the frontline health workforce, and they are also disproportionately represented in service sectors that have seen the biggest layoffs (e.g., retail, hospitality and tourism). The closures of schools and childcare are revealing the disproportionate burden of working women (of all social strata) in juggling the simultaneous demands of paid work and unpaid care work, as well as the extent to which all businesses rely on these key social institutions in order to operate at all.<sup>xxxi</sup> Moving beyond the acute stresses faced by all workers during the COVID-19 shutdowns, the longer-term impacts of job stress and burnout are decreasing our coping skills and weakening our resilience to deal with the aftermath and recovery period as well.

## Every worker has the right to safety, health, and dignity at work.

Crisis can reveal what is broken in society and spark the collective will to change, reshaping our values, our institutions, and the organization of our lives. In history, pandemics have led to upheavals that changed the prevailing social order. In the 14<sup>th</sup> century, the bubonic plague or Black Death swept through Europe and hastened the demise of serfdom across the continent.<sup>xxxii</sup> In the United States, the 1918 Spanish flu pandemic and World War I led to a labor shortage that opened many jobs to women for the first time, emboldening women to ask for higher wages and the right to vote.<sup>xxxiii</sup> The COVID-19 pandemic has opened our eyes to the truth that all people contribute to society – that low-skill and low-wage jobs (e.g., janitors, store clerks, delivery people, farm workers, transportation workers, childcare providers, etc.) are essential and should be treated with dignity and respect. Dr. Martin Luther King foreshadowed this moment more than 50 years ago, when he addressed striking sanitation workers in

Memphis, Tennessee: “One day our society will come to respect the sanitation worker if it is to survive, for the person who picks up our garbage, in the final analysis, is as significant as the physician, for if he doesn’t do his job, diseases are rampant. All labor has dignity.”<sup>xxxiv</sup>

## **Employers are the stewards of workers’ health and well-being.**

COVID-19 is an opportunity to reset the relationship between companies and workers. In the capitalist system, people are viewed merely as “labor” – a factor of production and a cost to be minimized so that investors can earn the highest return on their capital. The current crisis has exposed how this simple calculus is inhumane, unsustainable, and makes poor business sense. Employees are every company’s greatest assets. Employees and their families need to be healthy and secure in order to be motivated, engaged, and productive at work. Indeed, COVID-19 has pushed the idea of *stakeholder capitalism* to the forefront. The World Economic Forum is encouraging business leaders to rebalance their priorities and reconsider their responsibilities to care for the wellness of their employees, customers, suppliers, and local communities.<sup>xxxv</sup> Employers can rise to the occasion and act now; employee wellness means protecting workers’ financial security, their physical health, their mental well-being, and their dignity. The issues to be addressed are many: creating safer and healthier working environments, preventing workplace deaths, paying living wages, providing paid sick leave, addressing workplace harassment and discrimination, reducing the culture of overwork, and much more. Long after COVID-19, people will watch and judge the character of companies and business leaders based upon their actions during and after the crisis – deciding what types of businesses they want to be their employers, customers, business partners, or operating in their communities into the future.

## **Governments set the standards for protecting workers’ wellness.**

COVID-19 has galvanized a movement to recognize and appreciate the essential workers who are on the front lines during the crisis. But saying thanks is not enough. As we emerge from the crisis, we need to reconfigure our economies and societies to provide these workers with compensation and protections that reflect the true value of their contributions. Regardless of the type of work or the place of work, every worker has a basic human right to a safe and healthy working environment.<sup>xxxvi</sup> Government policies and regulations set the baseline for protecting their citizens’ health and well-being in workplaces. Despite the proliferation of government regulations on workplace and occupational safety and health, work is unhealthy and unsafe for millions of workers around the world, and even more so during the current pandemic. Governments have a responsibility to monitor and enforce existing health and safety standards, while stepping up regulations where protections are lacking (including protections against infectious disease). Now more than ever, it is clear that a strong social welfare system is also essential for lower-income, lower-skill, and vulnerable workers. Measures such as mandating fair minimum wages, public unemployment schemes, paid sick leave, and paid parental/family leave provide an essential safety net for workers at the lowest rungs of the economic ladder, alleviate human suffering, and are even linked with better health outcomes.<sup>xxxvii</sup> They keep economies functioning in times of crisis, and it is essential that these policies are extended to the large share of workers who are self-employed, work on short-term contract or gig arrangements, or work in the informal economy. And, since the public sector is typically one of the largest employers in most regions around the world, governments themselves can model these practices by providing safe, healthy, and edifying environments within government workplaces, raising standards across the board and providing a model for the private sector.

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GLOBAL WELLNESS INSTITUTE WHITE PAPER SERIES

**RESETTING THE WORLD WITH WELLNESS:**  
**IV: Staying Active**

Ophelia Yeung & Katherine Johnston

MAY 13, 2020



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# COVID-19 has worsened the global physical inactivity crisis, just when we need more exercise to strengthen our resilience.

COVID-19 is having a widespread impact on physical activity. Social distancing and shelter-in-place measures mean that we can no longer go to swimming pools, gyms, or exercise classes; play sports; visit parks and playgrounds; or dance in public squares. While workplaces and schools are closed, and many have lost their jobs, we are getting far less exercise from walking, biking, or taking public transit. Google data<sup>i</sup> reveal that people in every country are staying at home far more than normal (e.g., +33% in Philippines, +20% in Italy, +26% in South Africa, +23% in Mexico). Meanwhile, most countries are seeing large declines in activities such as taking public transit (e.g., -44% in Japan, -62% in UK, -32% in Israel, -47% in Brazil) and visiting parks and outdoor spaces (e.g., -25% in Australia, -48% in France, -42% in Egypt, -89% in Argentina). Fitbit, a global fitness tracker company, found that physical activity among their 30 million users (measured in step count) declined in March by -38% in Spain, -25% in Italy, and -17% in Russia.<sup>ii</sup> Health data company *evidation* estimates that physical activity has declined by -48% in the United States since March 1.<sup>iii</sup> Emerging data around the world suggest that both adults and children have become more sedentary during the pandemic. In a recent Lancet survey in South Korea, 81% of parents reported that their children's screen time has increased. In Canada, people aged 15–49 years reported a 66% increase in time watching TV and 35% increase in time spent playing video games, as compared to the time before the COVID-19 crisis.<sup>iv</sup>

The COVID-related decline in physical activity is causing great alarm among the global public health community.<sup>v</sup> The benefits of physical activity are varied and widely proven, including: preventing chronic disease, reducing stress, managing weight, improving sleep, alleviating depression, and so on. In other words, physical activity can help to reduce the major risk factors associated with COVID-19, while our improving mental and emotional resilience to cope with the current crisis. Recent studies have found that cardiovascular exercise helps the body produce an antioxidant – extracellular superoxide dismutase (EcSOD) – that may reduce the risk of acute respiratory distress syndrome (ARDS), a major cause of death in COVID-19 patients.<sup>vi</sup> There is growing concern among the public health community that the increased sedentary behavior during COVID-19 may reduce our resilience to fight the disease now, and to ward off chronic and infectious diseases in the future.<sup>vii</sup>

Physical activity rates have been on the decline around the world long before COVID-19,<sup>viii</sup> to the extent that sedentary behavior has been called a “global pandemic.”<sup>ix</sup> The World Health Organization (WHO) defines physical activity as “any bodily movement produced by skeletal muscles that requires energy expenditure – including activities undertaken while working, playing, carrying out household chores, travelling, and engaging in recreational pursuit.” In order to maintain good health, children and adolescents need 60 minutes of moderate- to vigorous-intensity physical activity daily, and adults need 150 minutes of moderate-intensity physical activity, or 75 minutes of vigorous-intensity physical activity, on a weekly basis.<sup>x</sup> An estimated 27.5% of the world's adult population has insufficient levels of physical activity (i.e., not meeting the WHO standards).<sup>xi</sup> Physical inactivity is the fourth leading cause of death in the world, responsible for more than 5 million preventable deaths annually.<sup>xii</sup> Many factors, from our modern lifestyles, to our living environments, to socioeconomic inequities, have given rise to this alarming trend. The current pandemic is drawing new attention to the importance of exercise, as well as who can exercise, and how and where we exercise. And, the crisis is sparking some responses that could increase and democratize access to physical activity options over the longer term.

# How did we become so inactive?

## Our modern lifestyles are increasingly sedentary, and we lack the time to exercise.

For most of human history, physical movement was not done for exercise but for survival. We were hunters and gatherers, farmers and fishermen, building our own houses, carrying water, and washing clothes by hand. But today, our modern lifestyles and livelihoods require much less physical exertion than those of previous generations. With urbanization, new technologies, and the rise of the service economy, a growing share of people work in jobs that require sitting for most of the day. At home, physical chores such as cooking and cleaning have been greatly eased by modern appliances and industrialized food production. Meanwhile, the digital revolution has enabled us to shop, socialize, and consume news and entertainment without leaving our homes or even our sofas. These technologies and conveniences may be essential during the COVID-19 shutdowns, but they are not good for our physical activity or health.

As essential physical tasks steadily disappear in our daily lives, they have not been replaced by other types of built-in movement. Physical activity has become less natural and more structured and intentional. Recent systematic reviews of data for adults in wealthier countries find that work-related physical activity and use of active transit have been decreasing over time, while leisure-time physical activity (e.g., fitness and sports) has been increasing.<sup>xiii</sup> In many countries, fewer children are walking or biking to school.<sup>xiv</sup> In order to stay active, we now have to schedule time to exercise, and we increasingly have to spend money to do so. However, with long working hours, long commutes, dual income families, and other pressures of modern life, many simply cannot find time to exercise during their limited leisure hours. Others many find it unaffordable or inconvenient to do so. Only 35% of the world's population participates in recreational/leisure physical activities or exercise on a regular basis. A review of surveys and studies across over 60 countries reveals that the biggest barrier for both adults and adolescents to engage in physical activity is a lack of time.<sup>xv</sup>

In normal times, a massive and rapidly-growing industry of gyms, health clubs, and fitness studios meets the leisure exercise needs of those who have the time and money to access them. During COVID-19, most of these facilities are temporarily shut-down, and it is unclear when they will reopen or how many of them will survive over the longer-term. The decline in exercise during the current crisis is widespread but not universal. Around the world, some people have been able to replace their gym routines with running or biking outside, at-home workouts, and online classes. Digital fitness companies have seen double- and triple-digit growth in just a few months. For example, Mindbody (a global fitness technology platform) observed a 230% increase in the number of U.S. users who attended virtual classes in the first week of lockdown; in addition, 25% of users reportedly exercised more.<sup>xvi</sup> These people represent the lucky and privileged portion of the world's population who have the equipment, space, and technology to exercise at home or outside. As online and virtual fitness offerings have grown during the crisis, so have free and inexpensive options (e.g., workouts via free apps, YouTube channels, etc.), which can be practiced at home without specialized equipment. These options could become even more important as the need for physical distancing continues, and also have the potential to “democratize” fitness and address the time and convenience constraints that prevented so many from exercising prior to COVID-19.<sup>xvii</sup>

## **Our modern living environments make it difficult to stay active.**

Our modern built environment – both urban and suburban – is often described as obesogenic because it encourages sedentary behavior. With rapid urban growth around the world, and the mounting pressures of crowding, congestion, and sprawl, urban planning has increasingly prioritized vehicular traffic flow over pedestrians and public transit, with the unintended result of making walking or cycling an unpleasant, inconvenient, or even dangerous way to travel. Too many people automatically drive short (and walkable) distances, from work to school to errands, simply because there is no easy way to cross a highway on foot, or to walk from one shopping center or office park to another. In dense and sprawling urban areas, many people do not have access to parks, green spaces, or sports/recreational facilities near their homes. Some people live in areas where crime and safety concerns discourage them from being active outdoors. Some stay indoors because of poor air quality and pollution. All those missed opportunities to move in our daily lives – short distances not walked, flights of stairs eschewed, etc. – have now become the “steps” that we need to make up each day in order to meet our daily requirements for physical activity.

Better urban/regional planning and infrastructure can help reverse this trend by encouraging people to choose walking and biking as transit, embedding more physical activity into daily life in the process. During the COVID-19 shutdowns, many city-dwellers have turned to walking and cycling both for exercise and for essential travel, exposing the inadequacy of active transit infrastructure across every metropolitan area. City governments around the world are now taking action to help people move around more easily – for example, closing streets to vehicular traffic to make room for pedestrians/cyclists (New York, Seattle, Brussels); lowering speed limits (Milan); providing free access to bike sharing systems (London, Glasgow, Chicago); expanding bike lanes (Bogota, Mexico City, Berlin, Paris, Milan); widening sidewalks (London); and making automated pedestrian crossing signals “touch-free” (Sydney, Auckland, Boston). In many of these places, cities are fast-tracking active transit plans that were in place for the longer-term, or making temporary changes that they hope will become permanent.<sup>xviii</sup>

## **Exercise is a privilege that is not accessible for a large share of the world’s population.**

Even prior to COVID-19, there has been a large and growing divide between the people who have access to private facilities and public infrastructure that enable them to be physically active, and those who do not. The current pandemic has made those inequities more obvious and more alarming from both a personal wellness and public health perspective. Although the fitness sector is expanding its reach, these businesses are still primarily targeting those who are more able and likely to exercise – the educated, more affluent, younger demographics, and those living in major urban centers and wealthy suburban areas.<sup>xix</sup> Recent analysis of the “geography of fitness” found that the availability of fitness and recreational facilities across the United States tracks closely with key socioeconomic indicators (e.g., higher incomes, education levels, and “creative class” and high-tech occupations).<sup>xx</sup> If this kind of analysis could be conducted on a global level, the disparities would likely be even more stark. The reality is that participating in exercise remains a privilege that is not accessible for many people around the world.

While fitness businesses vie for market share by providing more choices to those who are able and can afford to exercise, a massive swath of the population has limited options, including seniors, women and girls, children and teens, people in poor health, and those living in rural and marginalized neighborhoods. These populations have higher-than-average rates of physical inactivity and are at higher risk for chronic disease; to stay active, they need public recreational spaces and amenities that are free, safe, and close to home. Numerous studies have shown that conveniently-located and well-designed neighborhood parks are often associated with higher levels of physical activity, especially for seniors, children, and disadvantaged populations.<sup>xxi</sup> Some communities invest in public gyms and community recreation centers that provide fitness options, athletic facilities, and swimming pools for a nominal fee. Dozens of countries across Asia, Latin America, and Europe have installed free open-air gym equipment (e.g., pull-up bars, metal bikes and elliptical machines, etc.) in neighborhood parks, especially targeting senior citizens.<sup>xxii</sup> In China, thousands of older men and women gather daily in public spaces to do tai chi and “plaza dancing.” In Africa, people exercise in parking lots and stadiums, on beaches, in the streets, and even in cemeteries. Cities in Latin America regularly close off key streets to cars to provide space for everyone to walk, run, and bike.<sup>xxiii</sup> Since indoor fitness and athletic facilities are mostly closed during COVID-19, these kinds of freely accessible public, outdoor, and natural spaces for exercise are more important than ever.

## **We need to stay active to be healthy.**

### **It is our personal responsibility to incorporate movement into our daily lives.**

Physical activity is intrinsic to our wellness. We are born to move. Most people know that it is important to stay active in order to be healthy. Even with this knowledge, many people cannot find the time, the motivation, or the interest to exercise. As discussed above, there are many barriers to being physically active (some of them exacerbated by COVID-19), and our lifestyles, modern conveniences, and built environments often encourage sedentary behavior. As individuals, we need to regard daily physical movement as a major health priority – akin to maintaining personal hygiene – if we are to stave off infectious and chronic disease. It is up to each of us whether we are motivated to do a series of jumping jacks, pushups, and situps at home; to look for a free exercise video on the Internet; or to go outside for a walk or run – or, whether we simply make an excuse to sit on the sofa and watch videos. It is our personal responsibility to take care of ourselves and keep our bodies strong and agile. No one can force us to exercise if we do not want to help ourselves.

### **Communities can lead in providing the amenities that enable physical activities.**

Local government planners, schools, churches, and community organizations are in the best position to create and maintain public recreational infrastructure for exercise, such as playgrounds, outdoor gym equipment, swimming pools, community recreation centers, sports facilities, walking/biking paths, hiking trails, etc. COVID-19 shows how important it is that these facilities are accessible to people in their own neighborhoods. Public physical activity infrastructure is especially critical for those living in poor and marginalized areas – where populations are

more vulnerable to inactivity, poor health, and infectious and chronic diseases, and are largely ignored by the mainstream fitness and exercise industry. Community organizations can also help to promote active lifestyles by sponsoring regular free and low-cost activities and events (e.g., exercise classes, social dances, walking/running clubs), especially targeting seniors, lower-income groups, and people with health and physical conditions. Religious and community facilities can be a safe and nurturing space for people who are intimidated by exercise. Social connections and a sense of community are typically the greatest motivators for people to exercise; camaraderie can turn exercise into a fun and popular activity. Community organizations can also build movement into regular gatherings, so that being physically active and feeling strong in our bodies becomes part of the local culture and the norm in the community.

## **Governments can promote physical activity through better infrastructure and planning.**

Governments can help keep people physically active by using infrastructure and urban planning to make movement a default in daily life. For far too long, the design of cities, neighborhoods, and buildings has been driven by efficiency and convenience, with little regard to how such priorities encourage sedentary behavior and have adverse impacts on our health and resilience. In recent years, new planning and design movements have emerged – such as New Urbanism, active design, and the sustainability/green movement – which provide guidance on how to use infrastructure to make physical movement the easy, convenient, attractive, and default/preferred way to go from place to place. Key approaches include “complete street” design (e.g., wide sidewalks, accessible crosswalks, pedestrian signals, narrower vehicle lanes, separated bike lanes); attractive and people-friendly streetscapes (e.g., street trees, lighting, benches, wayfinding signs), and walkable urban planning and zoning (e.g., higher density buildings, mixed-use development).<sup>xxiv</sup> These changes can be costly and require long-term planning, but they are now being accelerated as cities make plans for reopening after their COVID-19 lockdowns. COVID-19 creates an opportunity and urgency to refocus urban planning and design toward walking and biking, with the simultaneous benefits of addressing disease transmission in the short-term (by reducing crowding on public transit) and environmental sustainability in the long-term (by preventing an increase in car travel).



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**RESETTING THE WORLD WITH WELLNESS:**  
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Lawrence Choy, MD, Gerry Bodeker, PhD and Melisse Gelula

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## COVID-19 takes a toll on our mental well-being.

We are confronting a new and unprecedented reality of daily life from the COVID-19 pandemic. Stay-at-home orders, school and business closures, and widespread event cancellations impact every single person, family, and community across the world. Families are separated, children cannot play, and groups and communities are restricted from gathering in solidarity. *Social distancing* and *flattening the curve*, terms previously unheard of, have instantly integrated into our vernacular as much as the coronavirus has invaded our lives – and our individual and collective psyche. There is no longer a sense of safety and security with what was previously normal in everyday socialization, given the risk of infection and potential death. Since the World Health Organization declared the outbreak a pandemic in March 2020, social distancing has quickly become a new and familiar normalcy.

The acute health consequences of COVID-19 are dire and severe. Even for people who recover from it, potential long-term complications are still largely unknown.<sup>i</sup> While our concern has been focused on minimizing the spread of this disease, the stress and trauma from COVID-19 extend far beyond physical illness and death; it also takes an unquestionable and cumulative toll on us mentally, psychologically, and emotionally.<sup>ii</sup>

Mental stress affects everyone, whether or not they are directly afflicted by COVID-19 itself. The uncertainty and unpredictability of the pandemic cause fear, distress, and despair. Most people around the globe are affected by critical supply shortages, rising unemployment, soaring death tolls, and overwhelmed healthcare systems, creating immense societal anxiety, worry, and panic. Inequalities in resources, health care disparities, and misinformation fuel anger, frustration, and mistrust. Prolonged sheltering-in-place sets the stage for social isolation and loneliness, mental health hazards linked to substance use<sup>iii</sup>, violence<sup>iv</sup>, and suicide<sup>v</sup>. Parents working from home are now burdened by the increased dual responsibilities of a full-time employee and homeschool teacher. Business owners and employees across various industries, who find themselves suddenly without work or pay, desperately struggle to maintain their livelihoods, let alone support their vulnerable financial dependents. Meanwhile, workers deemed essential are in constant danger of getting sick and potentially dying. First responders and healthcare workers braving the frontlines are witnessing harrowing tragedies, often working without adequate protective gear, while facing potential burnout and the aftermath of psychological trauma.<sup>vi</sup>

COVID-19 has thrust most of the world's population into confronting unparalleled agony, grief, and loss. Many may grapple with the sudden death of a loved one who was alive and well just days ago, or the unexpected cancellation of a long-awaited milestone or major life event, as traditional celebrations, weddings, and graduation ceremonies are upended. Others may be dealing with the pain and distress of homesickness, as they are stuck abroad in a foreign land, unable to return home due to travel restrictions.

Our path to returning to some degree of prior normalcy is uncertain and unpredictable, as experts believe the pandemic could last up to two years.<sup>vii</sup> Even as some countries and regions are experimenting with relaxing current restrictions, COVID-19 will undoubtedly extend its ongoing hidden and incalculable toll on our mental health in both the short and long term. Mental wellness, which has received significant attention since the pandemic, will have the greatest impact on our ability to manage the emotional stressors of COVID-19 and to reset and thrive in its aftermath. Thus, it is more critical than ever that we learn to cultivate wellness

practices that empower us both mentally and physically, to navigate and survive the ongoing uncertainties and consequences of COVID-19.

Mental wellness relates to our psychological and emotional health and well-being, and it is not the same thing as mental health. While *mental health* is diagnostic and focused on relevant treatment for issues like anxiety and depression, ***mental wellness***<sup>viii</sup> refers to evidence-based practices that are proven to help reduce stress, worry, loneliness, anxiety, and depression—and improve our ability to cope, connect, and thrive. Mental wellness practices are part of a prevention model, much like diet and exercise. This active lifelong process involves making conscious and intentional choices toward living a healthy, purposeful, and fulfilling life. It enables us to optimize our functional capacities, navigate acute and chronic stressors, develop and strengthen resiliency, work productively and sustainably, and contribute meaningfully to our community and society.

## Acute and chronic stress impair our functioning, with potential lifelong consequences.

Wellness practices that promote health and harmony have existed for centuries and millennia. However, we were unable to provide a “hard science” explanation for their underlying benefits until the past few decades, mostly due to advances in brain imaging and molecular genetics. During the 1990s, coined the *Decade of the Brain*, our understanding of the brain underwent a radical paradigm shift. The scientific community, which was convinced the brain was not capable of change or enhancing our cognitive capacities in adulthood (as the saying goes, “You can’t teach an old dog new tricks.”), was proven wrong.

We discovered that stem cells actually exist in the adult brain. Through a remarkable process called *neurogenesis*, these newborn brain cells have the capacity to develop into mature functional neurons to aid in memory and learning. The positive impacts of these essentially upgrade our brain’s operating system, even into our old age. We now have substantial scientific evidence to explain how wellness habits promote our brain to change and rewire itself through a lifelong process termed *neuroplasticity*. Neuroplasticity, or simply change in the nervous system, is our brain’s intrinsic and dynamic ability to continuously alter its structure and function throughout our lifetime.

The strengthening and integration of neural connections involving our higher level brain regions, namely the prefrontal cortex (PFC), are fundamental in the benefits of wellness practices. Our PFC is responsible for complex brain functions that enable us to plan, organize, and make decisions to navigate a multitude of acute and chronic stressors so we can survive and thrive in life. It gives us our quintessential ability to respond rather than react. Throughout childhood, adolescence, and early adulthood, our PFC remains remarkably plastic, forming extensive connections and networks with other brain regions to develop higher cognitive functions and skills. As we age, the amount of physiological effort required to form new neural connections increases over time (*Figure 1*). Across our entire lifespan, we are required to exert greater effort to learn something new with each passing day. Thus, if we want to develop a new skill or habit, it is truly best to start sooner than later.

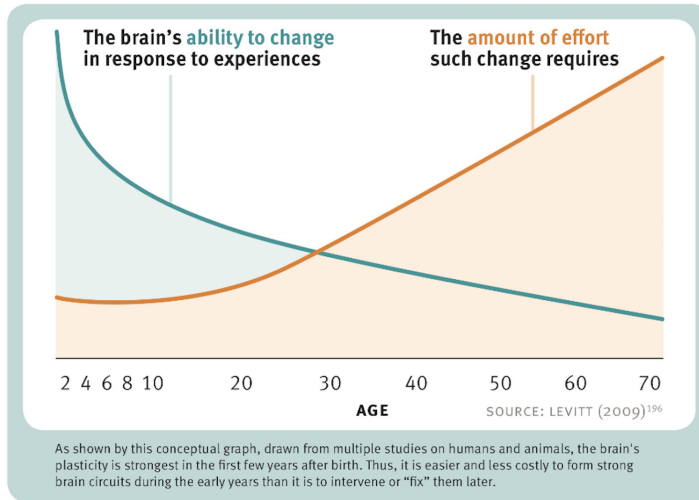
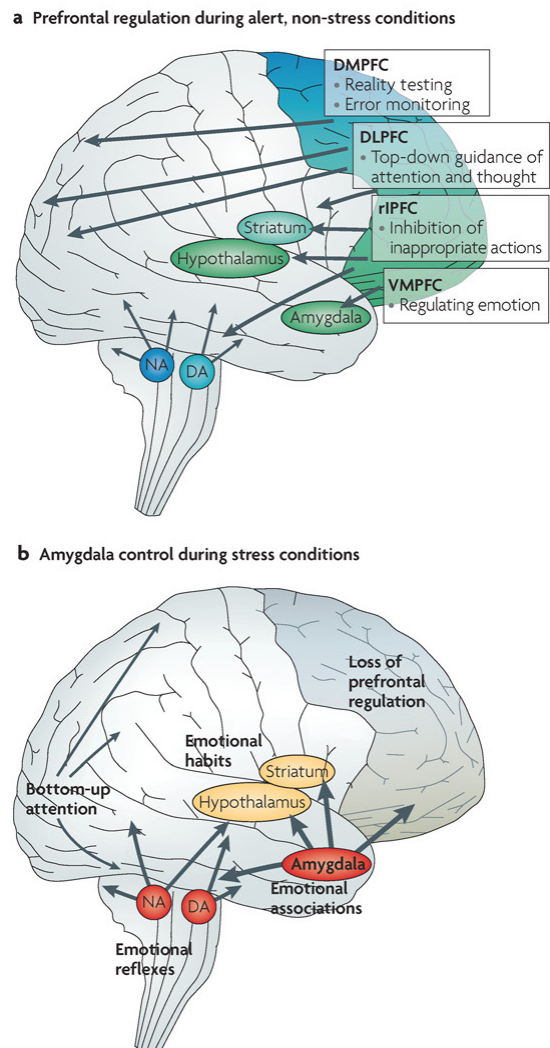


Figure 1. Brain plasticity across the lifespan (reused with permission)

Stress and trauma directly influence the activity and development of the PFC. Under acute and prolonged periods of heightened stress, our PFC essentially shuts down. The amygdala, our emotional processing center, takes over and triggers instinctive, reflexive, and defensive survival behaviors (*Figure 2*). This “fight, flight, or freeze” stress response engages and reinforces lower level neural pathways, conditioning our brain toward reactive survival mode. Chronic stress impedes healthy development of the PFC, impairing its overall functioning, with potential lifelong consequences for our ability to achieve a sense of well-being. Chronic stress and trauma habituate us to a life of impulse, defensiveness, and survival, rather than calm, love, and peace.

Figure 2. Prefrontal cortical versus amygdala circuits: the switch from non-stress to stress conditions (reused with permission)



## Harnessing neuroplasticity to navigate stress, optimize performance, and strengthen resilience.

Neuroplasticity requires us to engage in experiences that provide sensory, emotional, and mental stimulation. Our PFC functions in a nonlinear (inverted U-shaped) relationship with our stress level, such that optimal performance is achieved at moderate levels of stress (*Figure 3*). Too little or too much stress impairs functioning. It is vital that we push and challenge ourselves to moderate levels of stress – i.e., stress inoculation – to promote neuroplasticity in favor of optimizing performance, growth, and resilience (*Figure 4*). Equally important is the subsequent recovery period, when attaining sufficient rest and adequate nourishment are necessary for growth. The deliberate and active maintenance of this perpetual back-and-forth state of balance between optimal stress inoculation and restorative rest is key for driving positive neuroplastic changes. Additionally, it is critically important that we preserve our health by avoiding and minimizing toxic stress, burnout, and exposure to unhealthy substance use. Committing to a proactive lifestyle that incorporates daily mental wellness habits will enable us to persevere through ongoing challenges and crises, while fostering lifelong growth.

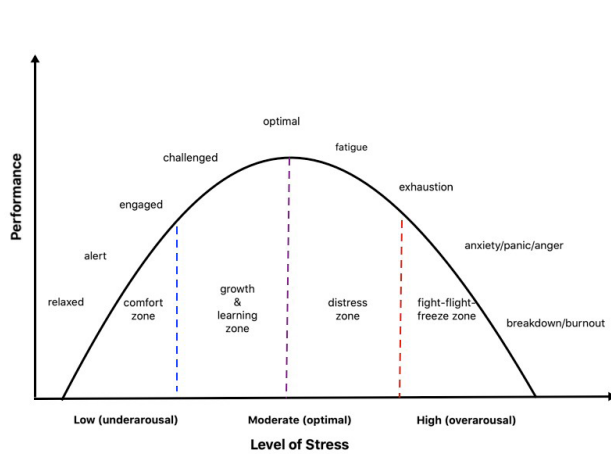


Figure 3. Human response to stress curve (adapted from Nixon P: Practitioner, 1979)

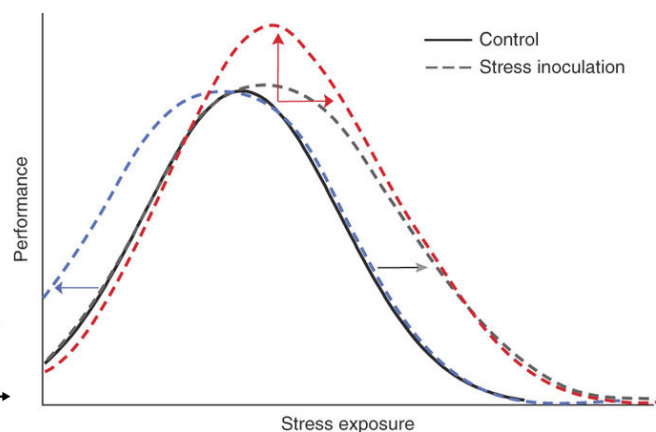


Figure 4. Stress inoculation shifts the inverted U-shaped curve to promote resilience (reused with permission)

## Committing to mental wellness practices enables us to overcome the pandemic crisis.

The extent of COVID-19's cumulative toll on our mental, psychological, and emotional well-being will only be fully appreciated and understood in the future after the pandemic has passed. Prior resources and support systems may no longer be available or accessible while our normal routines and coping outlets are vastly disrupted. In the midst of this ongoing crisis, we are subjected to heightened levels of stress. Fortunately, it is also stress that facilitates growth and learning to transpire, when it is effectively managed and embraced. To constructively navigate stress and endure this crisis, it is imperative to harness our brain's plasticity by committing to mental wellness. Building new habits by engaging in mental wellness practices such as meditation, deep breathing, and walks in nature will promote growth and resilience.



## The roadmap to mental wellness.

**Aerobic Exercise** [<sup>ix,x</sup>]. Aerobic exercise is fundamentally important for neurogenesis and proper maintenance of our body's physiologic “fight/flight/freeze” stress response. When we exercise, our brain is the executive in charge, directing activity in our heart, lungs, and muscles to mobilize our body for action, and empowering us with a sense of influence over our circumstances and environment. Aerobic exercise enables our brain and body to sustain and overcome the deleterious effects of acute and chronic stress through natural physiological processes that are otherwise absent when we are inactive or sedentary.

**Emotional Health** [<sup>xi,xii,xiii,xiv</sup>]. Fostering emotional awareness, cultivating spirituality, and maintaining a positive mindset are integral to mental wellness. Developing trust, security, and love in interdependent relationships is foundational to nurturing our brain's development. Committing regularly to activities such as praying, journaling, volunteering, social bonding, and psychotherapy drives positive neuroplasticity. Emotional awareness and attunement integrate our brain's structural and functional organization, building the foundation for healthy, thriving relationships.

**Environmental Enrichment** [<sup>xv,xvi,xvii,xviii,xix,xx</sup>]. Engaging in activities that stimulate our senses, challenge our cognitive and motor abilities, and enhance our social interactions is indispensable for maintaining positive neural changes throughout our lifetimes. Worshipping together, dancing, playing music, aromatherapy, traveling, hiking, and volunteering enrich not only our lives, but also our brain's development.

**Meditation** [<sup>xxi,xxii,xxiii,xxiv,xxv</sup>]. Meditation induces large-scale neuroplasticity to promote higher level development in cortical areas, especially the PFC, which has been documented in many studies. Different types of meditation practices exist, with each varying in the brain regions that are activated, eliciting distinct neural changes and corresponding benefits. Mindfulness meditation cultivates non-judgmental awareness, discipline, attention control, and emotional regulation. Transcendental meditation promotes calmness, restful alertness, and heightened self-awareness. Lovingkindness and compassion meditation foster selflessness, empathy, and positive relationships.

**Nutrition and Inflammation** [<sup>xxvi,xxvii,xxviii,xxix</sup>]. Chronic inflammation is one of the main underlying causes of poor mental health and illness. Our diet and gut microbiome have important roles in affecting our body's inflammatory processes, which impact our brain's health in numerous ways. Dietary modifications incorporating caloric restriction, intermittent fasting, anti-inflammatory foods, antioxidants, supplements, and prebiotics/probiotics help support the brain's health and drive positive plasticity.

**Relaxation and Deep Breathing** [<sup>xxx,xxxi,xxxii</sup>]. Our breath holds the key to reducing stress and achieving relaxation. Physical exercises that involve controlled breathing techniques, such as yoga and tai chi, help us endure chronic stress. Deep breathing activates the vagus nerve, which is a direct channel to the “rest/digest” branch of the nervous system. Vagal activation counteracts and mitigates the stress-inducing activity of the “fight/flight/freeze” branch of the nervous system, favoring healthy neuroplastic changes.

**Sleep** [<sup>xxxiii,xxxiv</sup>]. Sleep is essential for overall health, providing vital rest and restoration for the mind and body. It is particularly necessary for plasticity associated with memory processing.

Sleep is also critical for the maintenance of “housekeeping” functions, particularly the removal of waste, via the recently discovered glymphatic waste clearance system.

**Substance Use** [xxxv]. Smoking, alcohol use, and drug abuse have negative effects on neuroplasticity. It is critically important to moderate, minimize, or avoid the exposure to addictive and harmful substances.

## Community organizations can lead the way to recovery for our post-pandemic world.

COVID-19 has invoked a sweeping call to action from all of us as individuals, communities, and nations. As our global population pulls together to slow the spread of COVID-19, we will eventually begin our journey forward to healing and recovery. While uncertainty lies ahead, kindling unease and fear, our path forward also presents us with an invaluable opportunity for advancement and transformation. In grounding flights, shuttering businesses, and emptying streets and playgrounds across all corners of the world, the pandemic has given us undeniable firsthand knowledge that we are all indeed interconnected.

Schools, churches, businesses, and other community organizations can lead the way in helping others navigate the uncertainty of our post-pandemic world. Just as the safety and well-being of frontline health workers are first and foremost necessary for them to be effective in treating and caring for COVID-19 patients, community leaders equally need to be safe and well in order to be successful in supporting and guiding the very people looking to them for courage, hope, and direction. By prioritizing and practicing mental wellness habits, leaders in positions of authority and influence can demonstrate the true value of committing to the lifelong process that enables each one of us to thrive together.

Leaders who foster transparency, connectedness, and interdependence in their organizations or communities are essential to establishing safety, security, and trust for people. It is only when we are able to feel safe and supported that we can then begin to grieve our losses and heal. Cultivating a conscious and intentional culture of mental wellness is indispensable to promoting the ascension of our personal and collective needs. Inspiring charity, gratitude, and self-transcendent behavior emboldens those with greater resources and capabilities to set aside their non-essential needs to ensure others less fortunate are able to fulfill their basic needs. With mental wellness, we can transform our post-pandemic world to embody the virtues of compassion, meaning, purpose, harmony, and sustainability.

# Endnotes

## Figures

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# COVID-19 creates widespread social isolation and exacerbates the epidemic of loneliness.

Acting to save lives from COVID-19, governments around the world had to order people to stay home and socially isolate. The toll on human relationships has been heartbreaking, with people barred from visiting elderly parents in nursing homes or hospitals, and people forced to die completely alone or to say goodbye via speakerphone. As the world slowly opens up, complex social distancing measures will continue to keep us physically apart, and new waves of the virus will likely send us home again. We are in for a long “socially distant,” “touch-less,” and “contact-free” future, so psychically traumatic that our fears of physical closeness could last years after the pandemic. Experts are predicting a skyrocketing loneliness crisis that will create a wave of mental illness, suicide, substance abuse, and violence borne of social isolation, especially for our loneliest populations: the young, the old, the poor, and migrants.<sup>i</sup>

The bitter irony - or tragedy - is that pre-virus, experts (from the WHO to the UN) increasingly agreed that we were experiencing a loneliness crisis unprecedented in human history. Socially isolated populations have been exploding in most countries (see below). The major sociocultural and technological shifts that have unfolded from the Industrial Revolution through the Digital Age have looked like a concerted conspiracy to destroy intimate human relationships and decimate our “social capital,” or meaningful connections to our family, friends, and communities. This perfect storm of forces includes the capitalist obsession with individualism, work, money, and status over the well-being of the group; the shift from extended, to nuclear, to more single-person families; the rise of digital media; and the declining participation in community organizations and churches. Driven by the economic goal to create perfect, atomized consumers, community has been a casualty.

A fast-growing body of medical research (see below) is revealing that loneliness is one of our deadliest, most invisible health problems, representing a greater risk for early death than both obesity and smoking. If COVID-19 took loneliness from a crisis to mega-crisis, it also sent a message to the world that we precisely didn't need: that isolation is a protector. The COVID-19 experience is telling us that face-to-face connection, social gatherings, extended families, and dense cities are super-spreaders of the disease, while “socially distanced” environments (e.g., suburban car culture and solo living) fare better.

But COVID-19 also sends another message: we must work hard to give loneliness the recognition it deserves and to create new (and restore lost) meaningful human connections in a post-virus world. Experts have been talking about the “loneliness epidemic” for years, and now is the time to act. As Dr. Vivek Murthy, 19<sup>th</sup> Surgeon General of the United States, argues, loneliness is the “largest and most under-appreciated force for addressing many of the critical problems we're dealing with, both as individuals and society.” And we now have a “significant opportunity... to thicken and broaden (our) relationships. For decades we have been eating at smaller and smaller tables, with fewer and fewer kin. It's time to find ways to bring back the big tables.”<sup>ii</sup>

## The world was lonelier than ever before the virus hit.

The country-by-country statistics on the global loneliness crisis could fill a book. In the United States, loneliness rates have more than doubled in the last 40 years, and 61% of American adults now report they are lonely.<sup>iii</sup> In the United Kingdom, roughly 1 in 7 people report that they are “always or often lonely” – while more than 200,000 UK seniors see or speak to family or friends less than once a week.<sup>iv</sup> In Italy, 13% of adults report having no one they can ask for help.<sup>v</sup> In Japan, the number of seniors living alone increased more than six-fold from 1980-2015, and over 1 million adults meet the official government definition of *hikikomori*, or complete social recluses who never leave their homes.<sup>vi</sup>

The loneliest generations are the old and the young, with a new loneliness among youth now becoming a world crisis. A major BBC survey found that while 27% of people over age 75 “often or very often feel lonely,” that number jumps to 40% for 16-24 year-olds.<sup>vii</sup> In the United States, younger adults (79% of Gen Z and 71% of millennials) report being significantly lonely versus just half of Baby Boomers.<sup>viii</sup> In Japan, six in ten people reporting loneliness as a major problem are under age 50.<sup>ix</sup>

## The pandemic could unleash a loneliness mega-crisis.

The United Nations (UN) and World Health Organization (WHO) recently warned of a looming mental illness crisis born of “the “isolation, the fear, the uncertainty, the economic turmoil” wrought by the pandemic.<sup>x</sup> Data from the first three months of the pandemic are alarming. The WHO reports that 60% of the population in Iran, 45% in the United States, and 35% in China are now suffering mental distress under COVID-19.<sup>xi</sup> Loneliness is surging around the globe. A survey of English-speaking countries showed that 76% of people report being significantly more lonely because of the pandemic.<sup>xii</sup> New research shows that children are disproportionately impacted, especially those living in developing countries; not only are hundreds of millions of kids going hungry as they miss out on school meals, but more than 70% report that they feel very lonely due to school closures.<sup>xiii</sup>

## How did our world become so lonely?

**Changing family structures and rising longevity.** For tens of thousands of years, humans lived in multi-generational families supported by a dense network of kin. In the early 20<sup>th</sup> century, the nuclear family (headed by a male breadwinner) became the dominant model. And now we are experiencing the most seismic change in family structure in human history: more people worldwide living alone, with more people delaying, or choosing not to pursue, marriage and children.<sup>xiv</sup> As more women have access to careers and education, industrialized countries are seeing record-low fertility rates.<sup>xv</sup> In the United States, single-person households jumped from 13% in 1960 to 28% in 2018.<sup>xvi</sup> In Japan, two out of five households will be single-person by 2040.<sup>xvii</sup> People have never had, or lived with, less family. For the people living alone under the COVID-19 lockdowns, that can mean no real human contact for months on end. Longer lifespans also mean more people are outliving their family and friends, and their social networks shrink dramatically as they age. The pain older people feel when they are left behind can be excruciating. For example, in fast-aging South Korea, where vastly more elderly people now live alone because of the breakdown in traditional family structures, suicide rates have exploded since 1990.<sup>xviii</sup>



**We live in front of screens, not faces.** The harmless-looking smartphone appeared just a dozen years ago, and it rewrote human life. It promised to connect us as never before, but the fallout has been destructive: the decimation of the line between work and “life,” an endless barrage of “fake” and divisive news, and our “friends” becoming posts we scroll past on social media while we count up our “likes.” The average person now spends 6 hours and 42 minutes a day online.<sup>xix</sup> Constant digital connection means a growing disconnection from real people. We are talking to and seeing people less, and while we have all these digital connection tools at our fingertips, our conversations have become less meaningful, authentic, and sincere. Study after study shows an association between too much social media time and higher rates of loneliness, depression, and anxiety – especially for the young. Young adults who spend two hours on social media daily are twice as likely to feel lonely as those that spend a half hour.<sup>xx</sup> The rise of social media seems to exact a unique toll on young women’s mental health: for example, a shocking 28% of UK women ages 16-24 now have a diagnosed mental health condition like anxiety, depression, or panic disorder.<sup>xxi</sup>

**Our built environment and neighborhoods create isolation.** For decades, our residential communities have been designed to create isolation and erode neighborly trust.<sup>xxii</sup> Around the world, our homes and neighborhoods are increasingly segregated by class, race, and life stage (the elderly separated from the young), while our car-centric infrastructure has erased public spaces and chances for spontaneous “bump-ins” with neighbors. Homogenous modern housing, and retail and entertainment districts that look exactly the same from China to California, encourage consumption over community, culture, and spiritual life. We have lost the neighborhoods that once provided us natural human connection.

**The migratory population surge.** A record percentage of the world’s population is now migrant, suffering from the terrible loneliness that comes from being far from one’s home culture, friends, and family. An estimated 272 million people (3.5% of the world’s population) now live outside their home countries, including 26 million refugees.<sup>xxiii</sup> And, these figures underestimate the level of displacement because there is so much movement inside countries: nearly 51 million currently live in internal displacement due to conflict and disasters.<sup>xxiv</sup> The World Bank estimates that climate change will displace an additional 143 million people within their countries by 2050 across Sub-Saharan Africa, South Asia, and Latin America.<sup>xxv</sup>

**Decline in religious affiliation and weekly worship.** While the majority of people worldwide identify with a religion (84%), both religious affiliation and regular attendance at religious services is declining in most countries. For example, in the United States, 65% of people now identify as Christian, down 12% in the last decade.<sup>xxvi</sup> The decline is especially strong among younger generations: globally, only 36% of those age 18-39 attend weekly religious services versus 42% of people age 40+.<sup>xxvii</sup> With this decline, not only is instruction in crucial spiritual and ethical values lost, but also the tangible community and social connections that happen when people gather regularly for religious observances. All the major religions, from Catholicism to Islam, have as their centerpiece a belief in service to others, especially to help the most vulnerable. With mandated social distancing and the cancellation of religious services during COVID-19, the 2 in 5 people worldwide that rely on them for spiritual support and human connection are now deprived in a time when they need this support the most.

## Loneliness is a killer: Its impact on our health is staggering.

Social isolation is not even classified as a health condition by the medical community, but a growing mountain of research shows its astounding impact on our physical and mental health. One large study indicates that social isolation presents a far greater risk of mortality than obesity, smoking 15 cigarettes a day, excessive alcohol consumption, and lack of physical activity – and that strong social connections are associated with a 50% reduced risk of early death.<sup>xxviii</sup> This makes loneliness a critical health issue. Numerous studies also reveal that loneliness is the invisible, lurking root cause behind many health conditions, including addictions, depression, and heart disease – from causing a 32% increased risk of stroke<sup>xxix</sup> to doubling a person's likelihood to develop Alzheimer's.<sup>xxx</sup> Loneliness even makes people more vulnerable to viruses like COVID-19, as it causes changes in gene expression in white blood cells resulting in reduced immune defenses.<sup>xxxi</sup>

## We must balance digital and face-to-face interactions to create stronger and healthier social connections.

The “digital everything” trend is being radically accelerated under COVID-19, and experts predict that it will define our post-virus world. If 70% of global professionals were remote workers at least part of the week pre-virus,<sup>xxxii</sup> working from home has become the norm during the pandemic, and now more companies are stating that employees will not be heading back to offices post-pandemic.<sup>xxxiii</sup> All the macro trends that analysts predict for our post-COVID-19 future – from an exodus from cities to suburbs and rural areas, to full-time working from home – will further isolate us and eliminate what our lonely world needs most: human gathering and face-to-face communion. We must be vigilant that digital innovations and new “distancing” technologies and techniques do not decimate real human connections. It will take action at the individual, community and government levels to tackle our unsustainable loneliness crisis and build a more connected world. And, it will be just as challenging as it is desperately needed.

## Individuals are the most powerful force for social connection.

During COVID-19, we have seen an extraordinary global burst of human kindness and service to others. The UK's NHS volunteer army was flooded with so many hundreds of thousands of applications that they could not process them; thousands of individuals and community groups set up “wellness checks” and outreach programs for seniors and the vulnerable, such as delivering groceries and medicines, or just having long talks.<sup>xxxiv</sup> If we communicated primarily by terse text messages pre-virus, suddenly long phone calls to family and friends have made a comeback. People who never knew their neighbors' names are now meeting on porches and in the street. The world watched transfixed as Italians imprisoned at home sang with each other across their balconies, or as people emerged each night to cheer on healthcare workers. How about we simply sustain such behaviors post-crisis?

**Change the quality of your communication.** COVID-19 has shown us that we ache to connect. The most powerful force in creating a less lonely world will happen at the interpersonal level. What is the quality of, and intention behind, our communications? Do we meet strangers' eyes and say hello? Do we constantly broadcast our successes on social media, or do we show humility, kindness, and vulnerability? Do we send abrupt texts to our friends and family, or do we carve out meaningful time for them, showing up as our listening, caring selves? Do we reach out frequently to our friends and family that are most isolated? Do we invite people spontaneously to our homes (or porches, for now)? Do we perform service and volunteer, which so many studies show can improve our own health and happiness? We need to make intentional effort to go deeper with every level of our social connections: from our intimate family and friends, to our co-workers and occasional friends, to our acquaintances and neighbors.

**Less screen-time, more people-time.** As the pandemic continues, we must embrace digital platforms and the phone to maintain our connections. But when we emerge from the COVID-19, we must work to exchange our six-plus daily hours spent with screens for more hours spent face-to-face with real people.

**Destigmatize loneliness.** We must talk far more openly and easily about loneliness, because it afflicts most of us and is not a sign of weakness or failure, but an expression of our innate human need to belong and connect. We need to talk to our family and friends about it; therapists and doctors need to bring it to the center of conversations; and we need community campaigns to normalize and tackle the issue.

## Communities provide the spaces for human interaction to flourish.

**Design homes, neighborhoods, and cities that spark connection.** We can reverse our “anti-social” built environments and engineer our housing, neighborhoods, and cities with all kinds of features that drive community, such as public plazas and parks, sidewalks, mixed-use spaces, and higher density and more diverse housing design.<sup>xxxv</sup> In response to COVID-19, cities are shutting huge swaths of streets to cars to allow people to walk, run, and bike outside safely; re-opening restaurants are now pouring out onto closed streets to create space for socially distanced, outdoor dining.<sup>xxxvi</sup> Cities should aim to make these changes permanent, keeping as many streets as possible as car-free spaces for walking, biking, and socializing. Prior to COVID-19, many places were faced with dying malls and main streets, and the skyrocketing retail closures due to the pandemic will be devastating. We now have an opportunity to reimagine our cities and suburbs around the values of community, rather than consumerism. Designing neighborhoods and cities so that people can spontaneously meet up or gather around shared interests (e.g., in concerts, in libraries, or in community gardens) is the most natural, powerful way to create greater connections.

**Reinvent “families” and multi-generational living.** Over the last decade, the rapid growth of solo living and remote work gave rise to a new “sharing economy,” spanning everything from the rise of coworking spaces for lonely workers to coliving concepts for young singles and friends. COVID-19 has put many of these new models of communal living and working to their toughest test. But with fraying extended and nuclear families, we cannot abandon the recent movement by people to create their own extended “families” and communal models of living and working. And, we must embrace new multigenerational living experiments. For instance, Humanitas in the Netherlands brings the two loneliest demographics together, young adults and the elderly, by blending college student housing with senior residences, where students spend time with

seniors in exchange free housing.<sup>xxxvii</sup> All types of housing – from coliving and urban high-rises to suburban developments – can be reimagined and redesigned to encourage different generations to live side-by-side, interact more frequently, and build supportive connections.<sup>xxxviii</sup>

**Broaden the community component of faith.** For millennia, religious faiths have been the bedrock of communities, and they remain so for the 40% of the global population that attends worship services weekly.<sup>xxxix</sup> Surveys show that during COVID-19, faith, prayer, and new religious practices are on the rise. One-quarter of Americans report that their faith has become stronger during the pandemic,<sup>xl</sup> and the University of Copenhagen found that global Google searches for “prayer” doubled for every 80,000 confirmed COVID-19 cases.<sup>xli</sup> During the pandemic, religious services have been forced to move online, an experiment in a new model of faith with strong potential to reach the younger generations. One U.S. survey found that 46% of those aged 13-25 started new religious practices during COVID-19, and 43% attended religious services online.<sup>xlii</sup> While face-to-face gatherings will remain the cornerstone of worship post-COVID-19, a new wave of online religious platforms will also keep appearing.<sup>xliii</sup> For instance, Hallow, a Catholic-based prayer and meditation app, saw a 2,000% jump in users praying (via the app) after Pope Francis called for a global rosary for COVID-19 victims. The post-virus world seems poised for a renewed interest in spirituality and religious community, places where one focuses on life’s more profound questions and where one learns to transcend self-interest to serve others.

## Governments and medical systems must take action to address loneliness.

**Social connection must become as important as diet and exercise in healthcare.** Given the outsized impact that loneliness has on our physical and mental health, and its role as the “secret agent” behind so many costly chronic conditions, public health needs to place loneliness on the same footing as diet, exercise, anti-smoking, and obesity reduction. A new report from the U.S. National Academies of Sciences, Engineering, and Medicine outlines the needed actions – for example, health professionals screening for loneliness and entering warning signs into medical records; governments and insurers funding research into loneliness’ causes, effects, and cures; and launching loneliness awareness campaigns targeted at people of all ages.<sup>xliv</sup> There are also calls for doctors and therapists to do “social prescribing,” connecting people to the resources and activities that can help them be less isolated.<sup>xlv</sup>

**Governments must aggressively address loneliness.** The United Kingdom appointed the world’s first Minister of Loneliness in 2018, to create a national strategy to reduce social isolation for every age group.<sup>xlvi</sup> We need more national Ministers of Loneliness. While government policymaking has historically been driven by a narrow focus on GDP and economic growth, a new breed of leaders is now creating national agendas and budgets based on improving a country’s total well-being, including a focus on the environment, income inequality, families, and mental health. This charge is largely being led by women, including New Zealand’s Prime Minister, Jacinda Ardern; Iceland’s Prime Minister, Katrin Jakobsdottir; and Scotland’s First Minister, Nicola Sturgeon.<sup>xlvii</sup> These well-being-focused governments are specifically tracking, prioritizing, and addressing loneliness. In a post-COVID-19 future, we need many more such leaders.

Former U.S. Surgeon General Vivek Murthy neatly sums up the opportunity before us: “If we approach this moment with intentionality... we may be able to come out of this much stronger, in terms of our human connections with each other, than when we began. We may be able to use COVID-19 as a way to reset how we approach relationships and to revisit the place that relationships have lived in our priority list.”<sup>xlviii</sup>

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GLOBAL WELLNESS INSTITUTE WHITE PAPER SERIES

**RESETTING THE WORLD WITH WELLNESS:**

# VII: Food as Nourishment for Body, Mind, and Spirit

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Quotation of, citation from, and reference to any of the data, findings, and research methodology from this report must be credited to “Yeung, O., and Johnston, K. (2020). *Resetting the World with Wellness: Food as Nourishment for Body, Mind, and Spirit*. Miami, FL: Global Wellness Institute.” For more information, please contact [research@globalwellnessinstitute.org](mailto:research@globalwellnessinstitute.org) or visit [www.globalwellnessinstitute.org](http://www.globalwellnessinstitute.org).

## The global crisis of food insecurity extends from hunger to widespread malnutrition.

Among the many miseries unleashed by COVID-19, the most horrific is the widespread hunger that is unfolding across the poorer regions of the world. Even before the current pandemic, global hunger was escalating into “the worst humanitarian crisis since World War II”<sup>i</sup> as a result of military conflicts, refugee crises, climate and natural disasters, and desert locust swarms in Africa. The UN World Food Program warns that COVID-19 threatens to double the number of people who are on the brink of starvation to a staggering 265 million, as the measures to fight the pandemic cause job losses and income collapse, closures of local food markets and small businesses, disrupted food imports and regional supply chains, and missed planting seasons.<sup>ii</sup> The threat of starvation looms in three dozen countries, with the largest share of vulnerable people in Africa and the Middle East. And, with school closures around the world, nearly 370 million children are missing out on nutritious meals, which could compromise their growth trajectories and weaken their immune systems against COVID-19. The Vatican has recently called for “creative solidarity” and global action to protect the world’s most vulnerable people from hunger and food insecurity.<sup>iii</sup>

Sadly, starvation is not the only food-related crisis that the world is facing. Well before COVID-19, and independent of the food insecurity caused by natural and manmade events, another form of hunger has been proliferating around the world. Even as rising incomes have relieved millions of people from daily hunger and caloric deficiency, many more people remain malnourished because the food they eat is devoid of health-sustaining minerals, vitamins, and other vital nutrients. This “hidden hunger” can manifest in stunting, wasting, and vitamin and mineral deficiencies, as well as in obesity and noncommunicable diseases (NCDs). The coexistence of undernutrition with overweight, obesity, and other diet-related NCDs – often referred to as the **double burden of malnutrition** – has been growing rapidly. One-third of the global population is afflicted with some form of hunger or malnutrition, as more and more people get their daily calories from high-fat, high-salt, high-sugar, low-fiber, low-nutrition, and processed foods. Children are increasingly vulnerable, and childhood overweight and obesity are on the rise in low-, middle-, and upper-income countries. In 2016, an estimated 41 million children under the age of 5 years were overweight or obese, while 155 million were chronically undernourished. Nutrition-related factors are responsible for approximately 45% of deaths in children under 5 years old.<sup>iv</sup>

Poor nutrition is directly linked to poor health, NCDs, and weakened immune systems, all factors that make us more vulnerable to infectious diseases like COVID-19. We must pay greater attention to how food affects our health and strive to improve food security for all people, not only by focusing on calorie count, but also on the nutritional value of what we eat and the quality of how we eat.

## Our poor eating habits are eroding our physical, mental, social, and cultural wellness.

**High-calorie, low-nutrient diets are a leading cause of disease and premature death.** Most of the world has experienced a major nutrition transition over the last century. Economic growth, demographic shifts, and urbanization have increased food availability and reduced

undernutrition, while simultaneously creating poor eating patterns and increasing consumption of unhealthy foods. In 2017, 10.8% of the world's population was undernourished, down from 14.8% in 2000.<sup>v</sup> Meanwhile, the prevalence of overweight and obesity has risen by 26% since 2000, to 39% of adults in 2016.<sup>vi</sup> Traditional diets are being replaced with nutrient-poor, calorie-dense diets, characterized by higher intakes of salts, fats, oils, sugars, refined grains, animal products, and processed foods, and lower intakes of fiber and fresh fruits and vegetables.<sup>vii</sup> Unhealthy eating patterns are a major cause of rising obesity and chronic disease, and are now a factor in one out of five deaths around the world.<sup>viii</sup> In fact, obesity and overweight are linked to more deaths than underweight. Women and girls, infants and young children, and those living in lower- and middle-income countries are especially vulnerable to poor diets and their related risks.<sup>ix</sup> Recent research indicates that improving dietary quality globally could prevent over 11 million premature deaths (or about one-quarter of global deaths based on 2017 figures).<sup>x</sup>

During COVID-19, the media has been rife with articles highlighting our changing eating habits while we are locked down at home (among those fortunate enough to have food). Some report healthier habits like more cooking meals and baking bread at home, less reliance on restaurants and takeaway meals, growing sales of organic and plant-based products, and rising demand for produce delivery services and community-sponsored agriculture shares.<sup>xi</sup> At the same time, many are stockpiling processed and shelf-stable foods; eating more “comfort foods,” junk foods, and packaged snacks; and consuming more alcohol.<sup>xii</sup> While the overall impact of COVID-19 on our eating habits may not be clear, what is clear is that the longer-term deterioration of dietary quality and rise of obesity are weakening our immune systems and are now believed the biggest risk factors for hospitalization and death from COVID-19 (especially among those under age 50).<sup>xiii</sup>

**Poor diets reduce our mental health.** Food not only fuels our bodies, but also our brains. Recent advances in nutritional psychology show that high-quality foods with vitamins, minerals, and antioxidants help to nourish the brain and boost brain development, while highly-processed, refined, and sugary foods can impair brain functioning and promote inflammation and oxidative stress (which affect cognition and mood). Our intestinal microbiome and “gut-brain axis” have a major influence on how we sleep, how we feel, and how we behave.<sup>xiv</sup> Recent studies have found that typical “Western” diets are associated with higher risks of depression and anxiety in adults as compared to “traditional” diets (e.g., Mediterranean diet or Japanese diet, which are higher in fresh produce, unprocessed grains, and fish/seafood, and lower in meats, dairy, and sugars).<sup>xv</sup> These relationships start early in our lifespan: unhealthy diets are associated with poorer mental health in children and adolescents,<sup>xvi</sup> and maternal diets during pregnancy are linked with a child's mental, emotional, and behavioral health later in life.<sup>xvii</sup>

**Food is essential to our social and cultural well-being.** Eating is not merely a physiological process; it is at the core of our humanity. What we eat is rooted in our traditions, our culture, and our history.<sup>xviii</sup> Since ancient times, food has inspired explorers, sparked wars, and transformed civilizations. As individuals, we express love and hospitality through the gift of food or a home-cooked meal, and certain foods can evoke memories, happiness, or comfort. Within our families, we connect and socialize with one another over meals, and food is at the center of many family celebrations, gatherings, traditions, and holidays. In our communities, food helps to define our cultural identity and is passed down through generations. Food is central to spiritual ceremonies, rituals, and teachings for all of the world's religions. A major attraction of traveling is to sample new cuisines.

As our eating habits have changed alongside the growth of the modern food industry, we are now losing many of these essential social and cultural connections we used to get from food. Globally, diets are becoming more homogenized,<sup>xix</sup> while restaurants are becoming “McDonaldized,” threatening the indigenous cuisines and food systems that connect us to our cultural identity.<sup>xx</sup> Studies show a decline in home-cooked meals from Japan, to Europe, to the United States.<sup>xxi</sup> As people increasingly turn toward processed, packaged, and ready-made foods, we risk the loss of culinary techniques and traditions that are typically passed on from generation to generation. Mealtimes are becoming less structured, with more meals eaten on-the-go and eaten alone – to the detriment of our social connections and mental well-being.<sup>xxii</sup> Eating is becoming yet another task that we must cram into our busy days, rather than an opportunity to slow down, savor, and connect. During COVID-19, one interesting phenomenon has been a rise in home cooking and baking across many countries – both due to necessity and a desire for comfort foods and stress-relieving activities. Many analysts predict that this trend will continue post-pandemic,<sup>xxiii</sup> presenting an opportunity to reconnect our cooking and eating habits with our social and cultural wellness.

## Our food access and eating patterns are shaped by local food environments and global supply chains.

**Our modern agricultural-industrial complex has many hidden health costs.** What we eat is not just a matter of individual choice, but is shaped by the entire food supply chain – from the kinds of crops grown and livestock raised, to the agricultural subsidies and trade policies that affect the supply and cost of food products. Over the last century, the Green Revolution vastly increased food availability and reduced hunger for millions worldwide, while simultaneously encouraging unhealthy eating habits and degrading our environment (e.g., reduction of biodiversity, nutrient depletion in soil, pesticides and runoff, genetically-modified organisms, greenhouse gas emissions, and global warming).<sup>xiv</sup> Today’s industrialized agricultural system encourages monoculture and reliance on commodity crops (e.g., rice, wheat, maize, soybeans) over diverse, indigenous, micronutrient-rich crops (e.g., fruits, vegetables, pulses, legumes). Meanwhile, liberalization of trade and foreign investment has facilitated the proliferation of processed foods and fast food/franchised restaurants around the world, as well as globalization of processed food marketing and distribution.<sup>xv</sup> Calorie-dense, nutrient-poor foods and highly-processed foods are now cheap, abundant, and intensively marketed to consumers worldwide, including children. Healthy foods often cost more than unhealthy foods, especially in developing countries.<sup>xvi</sup>

The result is the growing homogenization of diets; the erosion of traditional crops and food knowledge; and the rise of unhealthy eating, obesity, and associated chronic disease and premature deaths (as elaborated above). As fewer and fewer people work in agriculture, we are increasingly disconnected from where our food comes from. Longer supply chains increase food waste and raise the risks of foodborne disease;<sup>xvii</sup> contaminated foods are now responsible for 600,000 million illnesses (nearly 1 in 10 people) and 420,000 deaths every year, resulting in the loss of 33 million healthy life years.<sup>xxviii</sup> In addition, the health effects of pesticides, genetically-modified organisms, and nutrient depletion in soil are only beginning to be understood, while scientists predict that climate change will make our staple food crops less nutritious and endanger

the health of millions by 2050.<sup>xxix</sup> Recently, COVID-19 has magnified the risks in our globalized food supply chain. While there is no shortage of food globally, disruptions to crop harvesting, food processing, shipping, and distribution networks have strained food supplies, increased food loss, and put at risk the food security of millions living in food-importing countries.<sup>xxx</sup>

**Our local food environments affect our access to healthy choices.** Our cities and neighborhoods are the “last mile” of the food supply chain, influencing our decisions about what, how, and where we eat. Our local food environments increasingly “nudge” us away from healthy eating by making poor food choices the easiest or most appealing choice.<sup>xxxi</sup> Alongside rising urbanization, modern supermarkets, hypermarkets, convenience stores, and fast food outlets are gradually replacing traditional wet markets, independent small grocers, and informal street vendors in most countries around the world. Nearly 60% of processed food is distributed through supermarkets, and the modernization of food retailing is worsening our diets because it makes unhealthy options more accessible, convenient, and affordable. In many developing countries, the rapid expansion of supermarkets and convenience stores has been associated with more purchases and consumption of processed and ready-to-eat foods.<sup>xxxii</sup> Since supermarkets tend to concentrate in middle- and upper-income neighborhoods, the urban poor typically rely more on informal/traditional markets and street vendors for affordable and convenient food; however, even these outlets sell a wide range of unhealthy options, including soft drinks, candies, ice cream, fried, high-fat, and high-salt foods (alongside other health issues with food safety/hygiene).<sup>xxxiii</sup> A growing number of people (especially the urban poor) now live in “food deserts” where grocery stores and outlets selling fresh healthy foods are scarce or nonexistent, and fast food and packaged/convenience foods may be overabundant. Urban environments also expose us to more food marketing (through television and billboards), and widespread advertisements for snacks, sugary drinks, and snack foods – especially directed at children – are important environmental influences on our eating behaviors.<sup>xxxiv</sup>

## Healthy eating is an essential pillar of wellness.

### We need to treat food as nourishment for body, mind, and spirit.

Food is about much more than just calories for our bodies and sensations for our taste buds. Healthy eating habits and nourishing foods are good for our physical, mental, and social health; poor eating habits and unhealthy foods can poison our bodies and make us susceptible to chronic and infectious diseases, as well as mood and mental disorders. We are responsible for what we eat and feed our families, so we need to arm ourselves with knowledge about foods that are healthy and nutritious (e.g., fresh foods, vegetables and fruits, whole grains, lean proteins, etc.), and what are empty and even harmful calories (e.g., processed foods, refined starches, saturated fats, high-sugar, high-salt, etc.). Some of us need to reclaim the ritual of family meals as a time to disconnect from our busy lives, to give our food and our companions full attention, and to have meaningful conversations. Many of us need to bring mindfulness to our cooking and eating – it is not just another task to be accomplished, but an opportunity to pause, savor our food, and be grateful that we have food. We need to teach our children that eating is not about mindlessly inhaling calories while looking at digital screens, but is about nourishment, community, and gratitude. And, we need to do our best – through caring, service, and charity – to alleviate hunger (both for calories and for nutrition) in our communities and around the world.

## Communities have the power to improve food environments and food security for all.

Our local food environment determines whether healthy, fresh food is affordable and available to us. Around the world, far too many people live in neighborhoods where fast food outlets are the norm, and where the only nearby food market is a convenience store selling sugary drinks, canned soup, packaged ramen, and salty snacks. We cannot expect people who live in these “food deserts” to maintain healthy eating habits. Communities can use zoning, subsidies, and tax policies to improve access to local, fresh, and healthy foods by attracting full-service grocery stores, produce markets, and food co-ops to under-served neighborhoods, and by encouraging urban farming, community gardens, and free/low-cost community dining rooms. Installing safe drinking fountains and bottle-refilling stations in public places can encourage hydration while reducing the need to buy sugary drinks.<sup>xxxv</sup> Before COVID-19, 370 million children around the world were getting daily meals at school.<sup>xxxvi</sup> When schools reopen, we must ensure that these meals not only provide adequate calories but also adequate nutrition, because for many children school is the only assured source of food. School meals also provide an opportunity to share the science, facts, and knowledge of healthy eating with youth and educators. Communities can limit children’s access to junk food by using zoning laws to restrict the placement of fast food outlets and convenience stores close to schools. In addition, local leaders can work with businesses – either via collaboration or through laws – to promote healthy eating habits by reducing portion sizes in restaurants, making unhealthful foods an option rather than the default choice on menus, by changing the display and placement of fresh and healthy foods on grocery store shelves, and other means.<sup>xxxvii</sup>

## Governments can promote healthier eating habits and choices through education, regulation, and economic incentives.

Governments can improve consumer understanding of healthy eating through public awareness campaigns, clear dietary guidelines, and better food and menu labeling (e.g., consistent and clear labels for recommended daily amounts; for natural, low fat, low-sodium, low-sugar foods; etc.).<sup>xxxviii</sup> However, national dietary guidelines too often use the typical “Western” diet as a template, and therefore must be adapted to local cuisines, contexts, and food availability so that they are understandable to people living in different cultures. For example, cultures with rice-based, root vegetable-based, or non-dairy-based diets need different interpretations of nutritional guidelines than those living in Western countries. Governments can create economic incentives for healthy eating choices, either by using taxes (like a sugar tax) to discourage purchases of unhealthy foods, or by using subsidies to promote healthy options.<sup>xxxix</sup> Government regulations are also a powerful tool, such as restricting or banning undesirable ingredients or additives in foods (e.g., trans fats), or restricting advertisements of unhealthy foods and drinks targeting children. To be sure, the food industry has rigorously opposed, and will continue to fight against, these types of regulations every step of the way. However, governments must represent the health interests of their citizens against the big business interests that profit from the global industrial food complex. There is evidence that when countries adopt stricter food labeling standards and ingredient guidelines, food companies will respond by changing their formulations and providing more healthy options.<sup>xl</sup>

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GLOBAL WELLNESS INSTITUTE WHITE PAPER SERIES

RESETTING THE WORLD WITH WELLNESS:

# VIII: Travel and Wonder

Ophelia Yeung & Katherine Johnston

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## COVID-19 travel stoppages have had devastating impacts.

Travel has been one of the hardest-hit activities during the COVID-19 pandemic, and it may be one of the last to recover. By the end of April 2020, 100% of the world's destinations (217 countries and regions) had travel restrictions in place, representing “the most severe restriction on travel in history.”<sup>i</sup> Border closings, quarantines, and stay-at-home orders put a sudden halt to both international and domestic travel, sending millions of people home on short notice, while keeping others stranded in foreign locales. Millions scrambled to cancel their upcoming flights and trip bookings – deferring vacations and getaways, rearranging business meetings and conferences, and postponing visits with loved ones. In the context of the massive economic, social, and health impacts of COVID-19, these cancelled trips may be a minor inconvenience, but for many of us, they have psychological and symbolic impacts that make the pandemic's disruptions truly hit home. We have become accustomed to the freedom and ease of traveling whenever we want, in order to have new experiences, meet new people, or visit distant friends and family.

The COVID-19 travel stoppages are not just an inconvenience for travelers, because they have also decimated the economies of many tourism-dependent destinations, along with the travel industry and the livelihoods that depend on it. At its peak, the global travel and tourism industry contributed \$8.9 trillion to the global economy (10% of global GDP) and accounted for 330 million (one in ten) jobs worldwide.<sup>ii</sup> Global tourism has been growing so rapidly – and travel has become such a pervasive aspect of the modern, middle-class lifestyle – that until recently, one of the world's greatest travel-related challenges was how to cope with overtourism<sup>iii</sup> (see next section). Thanks to COVID-19, the problem of overtourism has been replaced by no tourism in just a matter of weeks. International trips are projected to decline by 60-80% in 2020, putting 100 to 120 million tourism-related jobs at risk.<sup>iv</sup> Millions have already lost their jobs and incomes, and many businesses are facing financial ruin, from airlines and cruise ships to hotels and restaurants, and from booking sites and tour operators to theaters and theme parks. Airline passenger revenues could fall by 55% in 2020,<sup>v</sup> while hotel occupancy rates and revenues have plummeted worldwide.<sup>vi</sup> The overall tourism-related economic losses may reach \$2.7 trillion this year.<sup>vii</sup>

Travel is an especially tricky activity to reconcile with COVID-19, because the very act of travel (humans moving from place to place), how we travel (in crowded airplanes, cruise ships, buses, and trains), and what we do at the destination (visiting popular and crowded attractions) all form a perfect vector of transmission. For now, both the travel industry and tourism destinations have been focusing on how to reopen and restart business by implementing new precautions, such as reconfiguring airplane seats, disinfecting, mask-wearing, physical distancing, temperature checks, quarantines, contact tracing, “travel bubbles,” and so on.<sup>viii</sup> The travel industry desperately wants to reassure customers that it will be safe to travel again, as soon as borders and businesses are open. However, by minimizing the global warning signs of the pandemic's spread, penalizing cancellations, and continuing to encourage travel and new bookings through mid-March, many leaders and businesses in the travel industry cannot escape some culpability in enabling the spread of COVID-19 across the world.<sup>ix</sup>

It will be a while before the world is comfortable to travel again, especially to the extent that we used to before COVID-19. When we do, it is certain that health and wellness will be foremost in our minds. But our concerns with travel and wellness should not be limited to COVID-19, however, because long before the pandemic hit there were many unhealthy aspects growing in travel and tourism.

## The rapid growth of travel has made it increasingly unwell for both tourists and tourism destinations.

Travel and tourism is one of the world's largest and fastest-growing industries.<sup>x</sup> In recent decades, economic growth, the expansion of the middle class, the proliferation of budget airlines and cheap airfares, and the relaxing of visa restrictions have made leisure tourism accessible to the masses rather than an out-of-reach luxury for the privileged few. The result is an unprecedented growth and democratization of travel: international trips have nearly tripled since 1995<sup>xi</sup> (peaking at 1.5 billion trips in 2019<sup>xii</sup>), and tourism sector growth has outpaced GDP growth every year since 2010.<sup>xiii</sup> This rapid growth is a double-edged sword, bringing the opportunity for more and more people to experience the wonder, awe, connection, and transformation that can come from travel, while simultaneously eroding the very experiences we are seeking when we travel.

## Overtourism threatens the future of the world's most-loved cultural and natural destinations.

Tourism is the lifeblood of many cities and regions across the world. And yet, the exponential growth of travel has raised new concerns about whether it is too much of a good thing. The 1.5 billion international trips and 13 billion domestic trips<sup>xiv</sup> that take place every year are not evenly spread around the world, but are heavily concentrated in the most popular countries and regions. The top 20 destination countries alone account for 59% of all international trips taken;<sup>xv</sup> within these countries, certain cities, sites, and attractions receive the bulk of these visitors. As a result, the world's top destinations – from Iceland to Machu Picchu to Bali – now face the risk of *overtourism*, with throngs of tourists diminishing the quality of the experience for visitors and reducing the quality of life for local residents.<sup>xvi</sup> The media abounds with stories of popular destinations where tourism has gone from a boon to a menace. Venice – the world's poster child for overtourism – now receives 25-35 million tourists a year; its aging local residential population of 50,000 may drop to zero in the next decade, while the city has implemented Disneyland-style crowd control measures during the high season.<sup>xvii</sup> In 2018, the Philippines' popular Boracay Island was closed for six months to repair the degradation that came from being overrun by visitors.<sup>xviii</sup> At Mount Everest, queues of climbers at the summit have led to tragic deaths and created the “world's highest garbage dump,” with thousands of pounds of garbage and piles of human waste left behind each year.<sup>xix</sup> In Paris, striking workers closed the Louvre for a day to protest the deteriorating conditions and overcrowding that threaten the museum's collection.<sup>xx</sup> The Taj Mahal's 8 million annual visitors have caused crowd surges that led to injuries, as well as structural damage and pollution that is turning the structure's marble yellow.<sup>xxi</sup>

Overtourism brings many negative impacts. Tourists' experiences are being degraded by overcrowding, long queues, and the commercialization of unique sites into inauthentic, theme park-like attractions. Local residents are becoming resentful, alienated, and displaced, as their rents rise, their neighborhood character changes, and tourism-focused businesses drive out local services while bringing few direct benefits to locals. Transport, energy, water, and sanitation infrastructure are overloaded. Over the long term, overtourism brings environmental degradation and puts at risk the very existence of the world's most loved cultural and natural treasures.<sup>xxii</sup>

## For tourists, travel is becoming ever more stressful and unhealthy.

When we plan a vacation, we are often looking forward to a break from our normal routines. We may want to rest and relax, experience something new and different, stimulate our minds, reconnect with friends and family, or meet new people. Unfortunately, the travel experience has deteriorated for so many people, and in so many ways, that it can even be bad for our physical and mental health. From the moment we leave our doorsteps, every step of our trip can cause stress: crowded airport security lines, flight delays, and transportation hassles; jet lag and poor sleep; unhealthy restaurant meals and too much alcohol; and excessive sun exposure. At the most popular destinations, overtourism means that we are battling crowds and long lines to catch a 15-second glimpse of the Mona Lisa, or viewing the Trevi Fountain amidst security barricades, throngs of international visitors, and street vendors selling mass-produced trinkets. The pressures of social media exacerbate these situations, as more and more people flock to top attractions to check items off their bucket lists, or to post the requisite selfies on Instagram.<sup>xxiii</sup>

All too often we return from a trip feeling like we need another vacation in order to recover. A recent Columbia University study of business travelers found that frequent and extensive travel is associated with many physical and behavioral health risk factors, including obesity, high blood pressure, lack of physical activity, smoking, alcohol dependence, trouble sleeping, anxiety, and depression.<sup>xxiv</sup> Another study found that vacationers are most happy while planning and anticipating their trips, but are not generally any happier than non-vacationers after their trips. The more stressful a trip is, the less happy we are afterwards.<sup>xxv</sup>

## Travel should be wellness-enhancing by inspiring wonder, awe, and connection.

It may be a long time before we will feel safe, and have the economic means, to travel to the extent that we used to prior to the pandemic. Yet, the human desire to travel will remain strong and possibly intensify, as we increasingly feel cabin fever and boredom while stuck at home during COVID-19. The need to move freely, to explore, and to be stimulated by new and diverse experiences is primordial and is essential to our well-being. Through a combination of geolocation tracking, mood monitoring, and neuroimaging, recent research in New York and Miami found that people who spent more time traversing a neighborhood or covering new ground in one day experienced more positive emotions, and this positive affect persisted into the next day. Furthermore, neuroimaging showed that such roaming stimulates the two regions of the brain (the hippocampus and the ventral striatum) that are associated with memory, learning, decision-making and reward processing. Essentially, wandering makes us happier and more mentally resilient.<sup>xxvi</sup>

Another reason that we yearn for travel is to experience wonder and awe, and to satisfy a fundamental human need for connection, inspiration, and transcendence. Awe can be inspired by many things: nature (Grand Canyon, waterfalls, giant sequoia trees); beauty (natural and manmade works of art); personal achievements (athletes, musicians); threats (volcanic eruptions, tornadoes, electrical storms); personal virtue (saints, good deeds), and the supernatural (angels, ghosts).<sup>xxvii</sup> The feeling of awe can lead to a diminished sense of self, a realization of the larger picture in which we are only a small part, and an increased sense of connection and empathy that enhances our well-being. While most travelers may not explicitly express

these sentiments, the fact that the world's hottest tourism spots include nature and the great outdoors, architectural wonders, masters' works of art, sports events, music and theater, and so on, tells us that we yearn for the opportunity for personal growth and transformation during our travels. And yet, with the advent of mass tourism, much opportunity for awe has been lost. It is difficult to develop wonder and awe, or have any space for quiet contemplation, when everyone is jostling for the perfect spot for a selfie. Increasingly, the value and rewards from travel have been reduced to the egotistical ticking-off of "been there" spots and the number of "likes" on Instagram or TikTok, where the quantity and social media edification of travel posts trump the actual experiences of the traveler.

Much like how 9/11 has forever transformed flying, COVID-19 will make a permanent mark on travel. It will be up to us to determine whether travel will henceforth become a better or worse experience. Surely, we will encounter new health screening procedures (e.g., temperature checks, declaration forms, contact tracing, quarantines, etc.). We can also expect new preventive measures that may make our wandering more restrictive and less enjoyable: new faces hidden behind masks, physical distancing, body language that communicates fear and threats, and "rationing" at popular sites to prevent overcrowding and lower the risk of disease transmission. In spite of these inconveniences, the hiatus caused by COVID-19 creates an opportunity for all the actors involved in travel and tourism to envision a more healthy, rewarding, and positive way for us to experience our future journeys and trips.

### **As individuals, we can reconnect with our purpose and intent for travel.**

As we anticipate all the new hassles and risks that will be associated with travel after COVID-19, some of us may question if it is even worth it. While we expect our vacations and getaways to improve our well-being, the reality is that the travel experience is often unwell, even long before the pandemic hit (as discussed above). Perhaps we have been approaching travel in the wrong way, caught at the intersection of mass tourism, social media mania, and crass consumerism. In recent years, a growing number of travelers have pursued a more purposeful approach to travel, giving rise to niches like ecotourism, wellness tourism, cultural tourism, voluntourism, and geotourism. By asking ourselves why we wanted to travel in the first place – what experiences we desire and what we hope to learn from them – we can become more mindful and intentional when the world of travel opens up to us once again. Perhaps we will focus more on the quality of our experiences, rather than the number of trips we are taking. Perhaps we will discover that awe and wonder can come from our own curiosity and openness, rather than how exotic or popular the place is. Perhaps we will stop expecting to be entertained in a passive way and will take more initiative to engage with our destination and its people. We could become less concerned with what we can buy, acquire, or gain from the places we visit, and instead become more conscious about the footprints or handprints that we leave behind.<sup>xxviii</sup> We may fight our impulses to document every visit with a selfie, and put down our phone or camera, so that we can be fully present to experience the moment. If the benefits of travel are to feel the wonder of a new place, experience the awe of nature, or have the exhilaration of trying something new, perhaps we do not have to go to far-flung foreign locales to have these pleasures. A trip to a new park or natural area close to home, or even the fun of planning a hypothetical trip we may not take, can help us rediscover the joy and happiness that we associate with travel. In a post-COVID-19 world, perhaps we will travel less but will learn to receive and enjoy more benefits from our travels.



## The travel industry can lead the charge in reopening tourism in a healthier direction.

With their revenues decimated by the COVID-19 shutdowns and their very survival at stake, travel and tourism businesses are understandably scrambling to mitigate short-term damage and implement preventive measures that will bring back their customers and allow travel to reopen once again. Given the unsustainable and unhealthy growth trajectory of tourism over the last decade, perhaps the industry should not be seeking to go back to “normal,” but rather to relaunch travel in a healthier direction for the long-term. The travel industry is the critical middleman between tourists and their destinations, or the intermediary that makes travel possible; in the quest to lap up the profits of tourism’s skyrocketing popularity, the industry has not been serving either stakeholder well.<sup>xxx</sup> Destinations are feeling overwhelmed by the busloads of tour groups and hordes of cruise ship passengers crowding their top attractions. Meanwhile, tourists feel as if they are treated no better than baggage on crowded economy-class flights, or feel burned by punitive cancellation policies and lack of refunds during the COVID-19 travel shutdowns. However, travel does not have to be this way, and the industry can lead the charge in making tourism a more healthy and wellness-enhancing experience for all involved. A profitable future for the industry may not always require more tourism, but better tourism. For example, COVID-19 has forced some travel companies, destinations, and attractions to experiment with online offerings (e.g., Airbnb’s online experiences) that demonstrate how virtual experiences can often provide a similar level of connection, wonder, and personal growth as a physical trip, especially for those who do not have the financial or physical means to travel.<sup>xxx</sup> Likewise, the rapid rise of wellness tourism in recent years is evidence of the growing demand for (and profitability of) travel experiences that are healthier for both the travelers and their destinations.<sup>xxxi</sup> Travelers and consumers increasingly care about who they do business with – not only from the perspective of their own experiences and how they are treated, but also in terms of how companies treat people and the planet (e.g., employees, customers, destinations, stakeholders, etc.). The travel and tourism industry can lead the charge in shifting tourism from a consumptive to a contribution mindset, to the long-term benefit of their own business, as well as the travelers and destinations they depend upon.

## Communities must balance economic interests with quality of life.

One interesting result from the COVID-19 shutdowns has been the emptying out of tourists in the world’s most overcrowded destinations. For the residents of these communities, the experience is like hitting the pause button; they are no longer outnumbered by tourists and can enjoy their own cities once again. According to one resident in Venice, “we don’t want to go back to how things were before. Overtourism was the norm, but it wasn’t normal, the city was overwhelmed...”<sup>xxxii</sup> Although this pause is temporary (and is a major threat to livelihoods and incomes), it is also an opportunity for high-tourism regions to take a step back, reassess the role tourists play in their communities, and consider measures to better balance the economic gains from tourism with the quality of life for local residents. This is not an easy task, especially for countries and regions where the economy depends upon tourism. But it is those places that have the most at stake. If a destination becomes so degraded that there is no authenticity left, and if it is so overrun with tourists that they can no longer experience any wonder or awe, then both the travelers and the local community are losers. The sustainability of tourism destinations ultimately depends on the wellness of the destination; the communities and residents who are the beneficiaries must be their own champions and stewards.

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