

## **Understanding the Connection Between Climate and Public Health: Full Interviews**

*Levi Strauss & Co.(LS&Co).’s long track record of action and advocacy on climate is grounded in the understanding that climate change poses a grave threat to the planet, its communities, and the ability to do business in the decades to come. The global coronavirus pandemic is bringing the connection to public health into focus as well. To better understand the links and what needs to be done, we interviewed experts at the nexus of climate and public health. What follows is more from the answers given by the experts we contacted, listed in alphabetical order, and abridged for clarity:*

### **Trish Koman, PhD, MPP, University of Michigan, School of Public Health and College of Engineering:**

#### **How are climate change and public health related?**

Because our climate is our life support, we can think of “climate determinants of health” – the conditions that change our climate profoundly affect public health and our well-being. Climate change is a threat multiplier, and at that core of that is warming. Warming increases extreme heat and heat-related cardiovascular disease and death. Warming also worsens severe weather, air pollution and increased allergens which relate to respiratory health and asthma. Warming can impact water quality and disrupt our food supply, relating to increases in water-borne infection disease, malnutrition, and diarrheal disease (a major threat to children globally). From the [Fourth U.S. National Climate Assessment](#) and many scientific studies the assessment documents, we know that our population health and well-being are already affected by climate change. Communities are responding in ways that can reduce risks, build resilience, and improve livelihoods.

#### **What behavior changes in response to COVID-19 could we retain to mitigate climate change? What can we learn from the COVID-19 pandemic and apply to addressing the climate crisis?**

In this terrible global pandemic, we have seen that when faced with a threat to public health, especially for vulnerable groups, we can mobilize and take action. We need to involve communities and be inclusive about finding solutions that support justice as well as sustainability. I joined the [Climate Reality](#) leaders and helped organize a chapter in my community because even though we need to be physically distant, we need to be talking about solutions, applying science and data, and not squandering the time we have now to plan. As we reshape our economy, how can people return to work and students return to school in a way that promotes a greener, healthier future? From this pandemic, we can carry over a focus on health as a core value into efforts to decarbonize our economies.

#### **How should businesses promote public health through their sustainability efforts?**

Businesses play a key role in promoting public health by carefully considering and controlling carbon emissions. Our experience with controlling particulate matter air pollution gives us an excellent model for controlling carbon air pollution. Under the Clean Air Act, we used a combination of market-based approaches, technology demonstrations, and performance-based requirements. We know that our economies have grown while we have made steady progress on reducing emissions and that the demonstrated benefits to society vastly outweigh the costs of polluting. We had to work across sectors

and focus on supply chain issues like energy production and transportation. Businesses can use their market power to demand cleaner energy and efficiency from suppliers.

**Tom Murray, Vice President, EDF+Business, Environmental Defense Fund (EDF):**

**How are climate change and public health related?**

Too often, the air we breathe, the food and water we consume, and the household products we bring into our homes contain pollutants or toxic chemicals that can harm both our health and the planet. A nationwide [study](#) showing long-term exposure to air pollution is associated with higher death rates from COVID-19 further highlights this interconnectedness. Fortunately, there is significant overlap when it comes to finding solutions for addressing climate change and improving public health.

**What behavior changes in response to COVID-19 could we retain to mitigate climate change?**

Many businesses have risen to the challenge and are showing courageous leadership in response to the global pandemic, paying close attention to both the health and economic well-being of their employees and communities. We need business leaders to sustain this new level of conviction and commitment to stakeholder capitalism, and extend it to climate change.

**How should businesses promote public health through their sustainability efforts?**

[EDF](#) is working on two big opportunities, among others, for companies to drive solutions for protecting our health and climate at scale:

- First, companies can remove toxic chemicals from everyday products and food that they sell – both online and on store shelves – and replace them with truly safer alternatives.
- Second, companies can help drive significant reductions in air pollution by reducing greenhouse gas emissions along their supply chain that also contribute to worsening air quality – like transportation and building operations.

**What can we learn from the COVID-19 pandemic and apply to addressing the climate crisis?**

If we simply return to business as usual after this pandemic, we'll continue to face immense environmental, health and economic risks. That's why it's so important that as the economy recovers and companies get back on their feet, business leaders double-down on their commitment to solving the climate crisis. Because by building a low-carbon economy, we can not only reduce environmental threats, but also create a stronger, more resilient future that safeguards human health for generations to come.

**Cecile Oger, Director, Business for Social Responsibility (BSR):**

**How are climate change and public health related?**

Climate change and public health are tightly related. Climate change has intensified in the last several decades, and so have the impacts of climate change on public health. These impacts take many forms:

- Direct impacts resulting from increases in the frequency, intensity, and duration of extreme heat, as well as the rising incidence of extreme weather events, such as floods and storms.
- Changes in the distribution and burden of vector-borne diseases (such as malaria and dengue) and water-borne infectious diseases (e.g. cholera), human undernutrition from crop failure, population displacement from sea-level rise, and occupational health risks, as well as noncommunicable diseases and disorders like respiratory diseases, heart disease, depression, and mental disorders.

Researchers expect the health impacts of climate change will be distributed unevenly across the globe and that climate change may make preexisting health inequality worse.

While climate change did not cause Covid-19, there are links between humanity's impact on nature and the way the pandemic has played out, e.g. globalization and global travel, consumerism, deforestation and biodiversity loss, urbanization, and rising income inequality.

### **What behavior changes in response to COVID-19 could we retain to mitigate climate change?**

I hope this crisis is a wake-up call. A wake-up call that we as humanity need to build resilience to face the next disruption - whether it be another virus or climate change. I hope this crisis also serves as proof that it is possible to change (on a global scale!), to reflect on the way we live and consume, to course-correct, and to make hard choices and fix a broken model.

### **How should businesses promote public health through their sustainability efforts?**

I don't think that the answer is that business should promote public health through "sustainability efforts." Business should protect and promote public health through the way they do business, full stop. As we are seeing with this crisis, businesses, even flourishing ones, can come to a halt within days. Companies should think across their entire value chain and assess where it is that their operations, behaviors, and activities are having a negative impact on public health, what that impact is, and how to mitigate it to prevent further negative health impacts. If anything, one can expect the general public to demand even more from business going forward. Now that we have seen that pollution can be reduced and that air is more fresh, we know it is doable and it is likely that the steps that businesses have taken for years to mitigate climate change from energy efficiency to reducing GHG (greenhouse gas) emissions will need to increase even more.

In this crisis, many companies in many sectors are demonstrating that they can take steps that build business and societal resilience. Many companies are indeed demonstrating that they can leverage their management practices, assets, products, services, and innovation to lessen their negative impacts and/or provide solutions during the COVID-19 crisis. In the same line, I am convinced that any company can create actions that both build climate resilience and benefit health.

A useful framework for companies to achieve that is [BSR's "Act, Enable, Influence Framework,"](#) which presents a comprehensive approach for business to not just implement rules and regulations, but instead be an active participant in shaping its operating environment. While all companies can take

action in areas under their direct control, they can also enable and influence other companies, partners, individuals, and policymakers by incentivizing, partnering, and communicating across industries and supply chains—thereby influencing the broader market.

### **What can we learn from the COVID-19 pandemic and apply to addressing the climate crisis?**

First: Humility. We were not prepared for this crisis. No government, market, leader, or business was properly prepared. We have discovered that we are a vulnerable species.

Second: The power of collaboration. This crisis shows that when humanity comes together, it can achieve great things pretty fast. The responses that we are seeing to COVID-19, even if not enough and not fast enough, are still incredibly remarkable if we take a step back and look. This crisis should be seen as a wake-up call that we are vulnerable to viruses and diseases—this isn't a Hollywood movie or a future scenario—this is actually happening, right now. Climate change is also happening, right now, and public health is already and will continue to be vastly and increasingly impacted by climate change. The COVID-19 crisis demonstrates that humanity can work together to find solutions, and business has a massive role to play. Seeing competitors join forces is something we have always promoted at BSR and it is great to see it in action more than ever.

Third: People at the center. This crisis has put humans back at the center. Let's not forget that climate change impacts our planet but also its inhabitants. This crisis shows that humans care for other humans, and public health is central to our societies. It's time to take serious care of our climate to preserve our health and that of our planet.

### **Rachelle Wenger, System Vice President, Public Policy & Advocacy Engagement, CommonSpirit Health**

#### **How are climate change and public health related?**

As the world is in a faceoff with the COVID-19 pandemic, this question takes on another layer of complexity. The pandemic is occurring on top of and in many ways intertwined with the climate crisis. The health of people, communities, and economies has never been more critical and ensuring care has never been more important. And as the pandemic shines a bright light on our interconnectedness on a global scale, it also shows the health inequities and gaps in our social, economic and, I would add, ecological systems. As an advocate, I have long talked about the connection between climate change and health. And now as we try to language our world today, it is important to connect the dots between that relationship and a pandemic that's taking center stage and coloring so much of life. Environmental health is human health. At [CommonSpirit Health](#), we see in our hospitals and out in the communities we serve how disruptions in ecological systems influence human health and disease in many ways. The health effects, to name a few, include increased respiratory and cardiovascular disease, injuries and premature deaths related to extreme weather events, and mental health. The climate crisis also affects health by changing the prevalence and distribution of food and water-borne illnesses and other infectious diseases.

Climate change intensifies existing health threats and contributes to the emergence of new ones. It is important to note that people are not equally at risk. There are the very vulnerable who are disproportionately experiencing the impacts of climate—the young and old, people with limited financial resources, those living in certain geographic locations or are otherwise homeless, as well as those who are already medically compromised. Climate change is a risk multiplier and research has shown that changing climate will likely contribute to future pandemics. Increased temperatures improve conditions for spreading infectious disease and disappearing habitats may force species to migrate allowing for increased opportunity of pathogen spillover. While initiatives to mitigate climate change—reducing pollution, changing consumption patterns, developing more local supply chains—not only limit global temperature rise but can also improve our ability to control future pandemics. We all have a responsibility to care for the ecosystems we rely on, if we are to care for one another.

### **What behavior changes in response to COVID-19 could we retain to mitigate climate change?**

I really like this question. It gives us an opportunity to pause and reflect on what life was like pre-COVID, the words to describe our day-to-dayness now, and what future we can bring to bear. It's an understatement that we are doing life differently. It's also not enough to describe it as painful, especially for the many individuals and families who have lost a loved one or have someone sick at home or in the hospital fighting for life. The shock and trauma we're having to deal with on a very personal and human level also extends to the way we are now having to do business. I can't think of one industry that hasn't been impacted. Business is no longer as usual. Companies have had to make some difficult decisions regarding furloughing staff and pay cuts for others, and above all, how to keep people safe and well. That all said, social distancing is having a profound impact on the marketplace as well as the environment. Our limited mobility means most of us are not getting in our cars or using public transportation, refueling at gas stations, going to work where lights and equipment are on sometimes around the clock, shopping and dining as we did before. Undeniably, energy intensity has diminished and so has pollution, improving the air quality in many urban locations.

With so much of our freedom restricted, I can't say enough about how much I love just being able to take deep, long breaths, grateful that this simple act reminds me I'm still free. This I can do. And so is the invitation to imagine a world where adaptation and innovations can ensure clean energy, clean transportation, and clean air for all. We don't quite know how long social distancing will go on, but we can pull from our values to rebuild and prepare. It's as if the pandemic is pushing us toward greater awareness. What can we do to better steward our resources while protecting our environment, ensuring both healthy communities and a healthy bottom line? How can prioritizing ecosystems, employees, and customers align with reducing costs? We need to be focused on stabilizing community health, rebuilding capital and restarting the economy.

Crucially, these priorities align with the goals we have as health and sustainability professionals to build back better. Increasing the use of clean energy and clean transportation combats long-term climate risk while creating near-term improvements in clean air that will reduce health costs and save lives. Moreover, prioritizing clean technologies as part of our recovery will support local innovation, investment, and manufacturing—boosting job creation and driving long-term cost savings for value

chains. Already we are seeing heroic ways in which companies are shifting and showing up. This says so much about American ingenuity and the human spirit. I believe there is a global eye that's waking up to how we must and can do things better, rebuilding a future that is truly more sustainable and resilient.

### **How should businesses promote public health through their sustainability efforts?**

As a global community, we can see this time as a wakeup call to the fragility of life and the interdependence of human beings, it certainly makes the case for sustainability much easier. We have to deepen and expand our understanding of sustainability and success, and why we exist as companies in the first place. When people and planet aren't healthy, the economics come tumbling down and business as usual grinds to a halt. This isn't hyperbole, it's the reality we are living today. I believe that resilient companies will have a deeper appreciation for how economic health is tied to environmental and community health. Sustainability is not an aside effort for these companies, but rather is fundamental to their strategic plans and their understanding of long-term economic success.

I invite businesses to tell their sustainability story far and wide, especially to policymakers at the local, state and national arenas. If your company sees sustainability as essential to prosperity and healthier communities, then policymakers need to hear from you. The best way to promote public health is to stand up for it and to use examples of what your company is doing to safeguard clean air and to promote the health and well-being of employees, customers and communities at large. I think it's equally important to share how it can be challenging for businesses to invest in sustainability and what meaningful solutions can help drive a healthy, economic bottom line. So many companies want to do the right thing but are hampered by conflicting policies and outdated regulations. Leadership is needed to build common ground, and foster the investments and incentives needed to align economic, public health, and environmental interests. Now is the time to share our sustainability 2.0 story. Now is our chance to ask for what we want and boldly act together, to invest in the right practices, the right infrastructure, and the right jobs.

### **What can we learn from the COVID-19 pandemic and apply to addressing the climate crisis?**

I think we are still learning (deep, long breath) not only about COVID-19 itself, its impact to the human body and society as a whole, but also about where we go from here. There is still so much uncertainty, and quite frankly, fear that we're carrying. It's sometimes hard to put two words together to describe the loss of what was certain, what we enjoyed, what we've worked so hard to advance as well as protect. If there is anything we are learning during this time is how precious life is and how fragile community health and livelihoods are. At a very basic level, we know that COVID-19 attacks the respiratory system, the ability to breathe, so essential to life. We know that COVID-19 has disrupted our supply chains, impacted customer needs and budgets, and changed the landscape of employment. We also know that those with chronic conditions are at higher risk, that the most vulnerable are the economically and socially disadvantaged. We know that in some communities, our black and brown sisters and brothers who make up the "essential workforce" are suffering and dying at a disproportionate rate. We know that COVID-19 is teaching us to safeguard life, to make our companies more resilient, to prioritize resource and supply frameworks that will sustain humankind, and to get on

with the business of rebuilding not for yesterday but for tomorrow and generations to come. Now reread this paragraph by replacing COVID-19 with climate change and be reminded of what we are not only already experiencing but also already know. We can collectively act to build back and better.

**Jessica Wolff, Director of Climate and Health, Healthcare without Harm:**

### **How are climate change and public health related?**

Climate change is a public health crisis. United Nations Secretary-General António Guterres called climate change an “existential threat” to humanity. And the Lancet Commission characterized climate change as both the “biggest global health threat” and “the greatest global health opportunity” of the 21st century. Climate change is already damaging human health and will have a greater impact in the future, disproportionately impacting vulnerable populations. Climate change impacts our weather, our environment, the quality of the air we breathe and water we drink, and the food we eat. The health effects of these disruptions include increased respiratory and cardiovascular disease, injuries and premature deaths related to extreme weather events, increased insect-borne diseases, and threats to mental health. The worst effects of climate change can be prevented, and such prevention presents a significant opportunity to simultaneously improve health outcomes.

Over the past few years the harmful effects of climate change have intensified, including more extreme weather events, changes in insect and water-borne diseases, and worsening air and water quality. The most vulnerable members of our communities - children, people of color, the poor, people with disabilities or chronic diseases, and the elderly - are the ones who suffer the most. Climate change is also a threat multiplier for all the other social determinants of health, affecting the availability of safe and affordable housing, compromising food and water security, and harming community health and safety. The U.S. Call to Action on Climate Health and Equity, endorsed by over 125 medical groups, is a package of policies that together will lower current and future health harms from air pollution and climate change, while also substantially improving the health of people and communities across the nation, increasing health equity, reducing healthcare costs and building a climate-resistant health system.

### **What behavior changes in response to COVID-19 could we retain to mitigate climate change?**

COVID-19 has caused global disruption and required immediate and significant behavior change across societies. The challenges we are facing as individuals, a nation and a world are unprecedented for all of us. In the face of this crisis, we have listened to scientists and public health professionals and made the recommended behavior changes to keep us and our communities safe and healthy. We have also seen three key responses that should be retained as we face the climate crisis - adaptation, innovation, and acts of kindness.

We have adapted to connecting online rather than face-to-face, using our technology to run meetings, visit with family and friends, and visit our health care providers. The goal for the future should not be “virtual-only,” but this experience has allowed us to see how these virtual tools can work well, and be used to reduce our footprint in the future. Well-run, interactive virtual business meetings and webinars

could eliminate the need for some travel. And having health care appointments via telehealth will lead to better outcomes as well as lowering the large footprint of health care, which now makes up nearly 10% of U.S. greenhouse gas emissions. As we have lacked personal protective equipment and other supplies for our health care workers on the frontline of the COVID crisis, we have seen operational innovations for lower impact, local solutions. From using blue wrap, a plastic fabric used for sterilizing instruments, to make masks, to local distilleries making hand sanitizer for hospitals, to local companies switching their production lines to make face shields, to implementing sterilization processes to safely reuse disposable equipment. We have seen our health care system offer telehealth appointments at scale in a matter of weeks, a transition we thought would take years. And as importantly, we have seen acts of kindness. Individuals have sewn masks and donated food to health care workers and unemployed neighbors, many of the “rich and famous” have made donations to cover rents or pay workers, and businesses have contributed in small and large ways. One of my favorite stories is about a small Somali company in Minneapolis that is donating washable hijabs to frontline Muslim workers. As we move forward and address the challenge of climate change, we need to harness and broaden this ethic of kindness so it becomes part of our communal fabric.

These three approaches, adapting to a changed reality, innovating with local solutions, and practicing kindness, all within the framework of sound science and the advice of health professionals, will help us mitigate the impact of climate change and be more resilient as a community.

### **How should businesses promote public health through their sustainability efforts?**

Businesses should understand and promote the connections between environmental and human health and invest in sustainability initiatives that directly improve the health of their staff and communities. The burning of fossil fuels drives both air pollution and climate change. Outdoor air pollution kills over 4.5 million people each year globally and new research shows almost 80% of deaths from COVID-19 across four countries were in the most polluted regions. By investing in the transition to a clean energy economy, businesses are supporting health. Ideally this is done locally, to directly improve the air quality in the community. Investments in community solar or a shared microgrid leverages an organization’s buying power to provide access to benefits to community members and support the local economy. For example, Gundersen Health System in Wisconsin implemented a portfolio of renewable energy to power its facilities - solar, wind, geothermal, biogas, anaerobic digestion - through innovative local partnerships, and Boston Medical Center’s cogeneration plant also serves as a backup power source for Boston and Massachusetts’ emergency communications.

Providing incentives to reduce the single-use occupancy commute - providing subsidies for public transit, supporting bike programs, installing electric vehicle charging stations, incentivizing carpooling, allowing for remote work (to name a few) - will help to promote cleaner air and reduce a key source of greenhouse gas emissions.

Supporting a regional food system is also key to supporting the health of people and the planet. If a business runs a cafeteria, they can commit to source their food locally, using guaranteed procurement to help businesses get started like Evergreen Cooperatives Green City Growers in Cleveland. Companies

can also support their local, food economy and the health of their employees through Community Supported Agriculture (CSA) farms. Companies can provide discount CSA shares to their employees as a benefit or establish their facility as a pick-up site to provide fresh local produce to their employees and support their local farmers. Businesses can also join the Cool Food Pledge to reduce the climate impact of the food they serve.

If a company is going to buy carbon offsets, consider an innovative program like what is being done by Cornell University. They purchase offsets via investing in energy efficiency and renewable energy for low-income community members through the Finger Lakes Climate Fund. This kind of investment directly addresses air pollution and climate change, while also improving community resilience through strengthening the regional economy and supporting more vulnerable families.

### **What can we learn from the COVID-19 pandemic and apply to addressing the climate crisis?**

The COVID-19 crisis has provided a glimpse into a potentially dystopian future if we do not change the way we do business on this planet. People all over the world are already feeling the impacts of climate change - extreme heat, wildfires, hurricanes, and floods, the spread of infectious diseases, drought and food shortages (including a plague of locusts in East Africa), mental health impacts and becoming climate refugees. And COVID-19 has laid bare our lack of preparedness and the systemic racism and inequities in our society that can no longer be ignored. Now that we are being forced to see these issues in stark relief, we have the opportunity to address them and move towards a more hopeful future. The response to the COVID-19 pandemic reinforces [Health Care Without Harm's](#) three-pillar climate-smart framework - mitigation, resilience and leadership - to engage hospitals in climate solutions. In trying to mitigate the spread of COVID-19, we reduced our risk by social distancing. To mitigate climate change, we need to support the transition to a low-carbon economy. In trying to take care of those that were impacted by COVID-19 and protect others, we realized our health care systems and supply chains were woefully unprepared.

Health care is at the frontline of the COVID-19 crisis and the climate crisis and we need to ensure our health care system is prepared and resilient for what is to come - to be prepared for the changing disease burden, to be a safe haven in the storm during extreme weather events, and to be an anchor to help build community resilience.

COVID-19 is a global pandemic and we have needed leadership at every level - global, national, state, county, and municipality - to address this crisis. Like the COVID-19 pandemic, climate change is also a global crisis and we need the same leadership and coordination at every level of government and in communities. Global coordination is in place with the [United Nations Framework Convention on Climate Change](#) and we have strong examples of countries and states with ambitious climate goals. There are many businesses, hospitals, and nonprofit organizations committed to climate solutions. Now we need to prioritize the problem and bring frontline and fenceline communities to the table.

The COVID-19 crisis has shown us what it looks like when we are unprepared and also that we can work together to change behaviors and systems at an unprecedented rate. Let's take those lessons and bring renewed faith and determination to addressing the climate crisis.