HEALTH CARE WITHOUT HARM

AT THE INTERSECTION OF HEALTH CARE AND THE ENVIRONMENT

2020 ANNUAL REPORT

THE FUTURE IS NOW

An emerging physician leader talks health care's role in climate solutions

25 YEARS ON THE PATH TO HEALING

From eliminating mercury in one hospital to a global network of system changers

FROM NEW MEXICO TO NEW DELHI

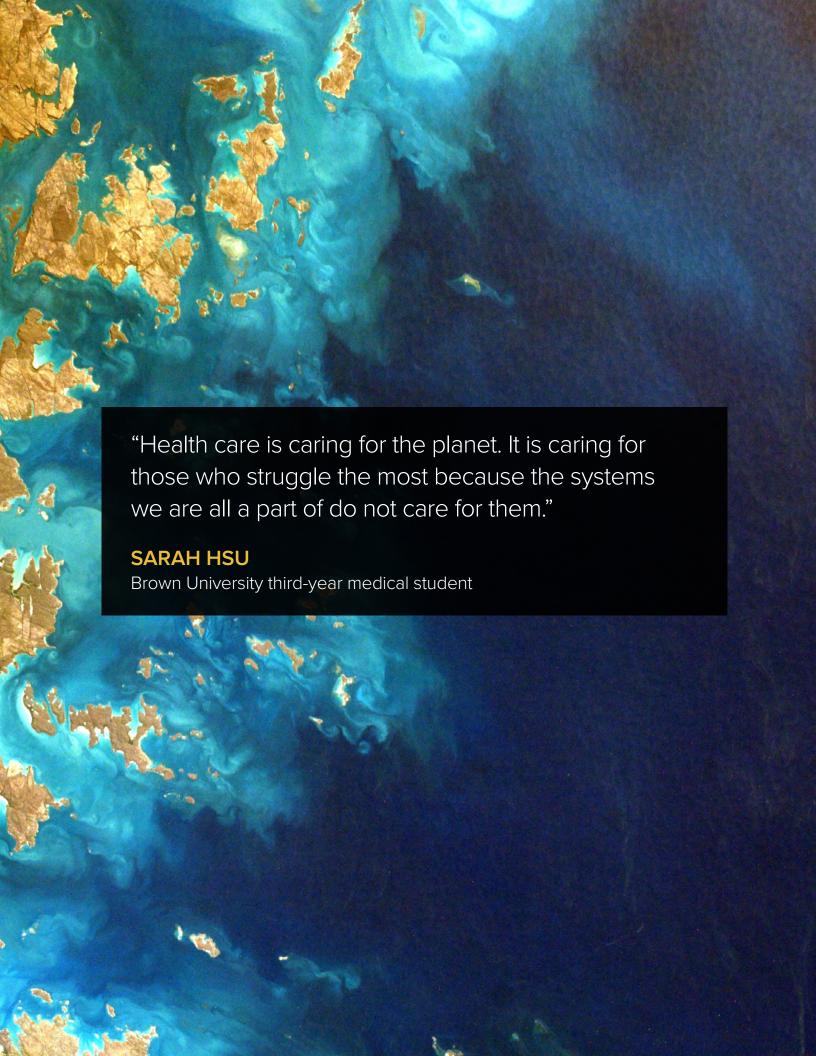
Building resilience at home while building bridges around the world



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Thank you

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The future is now

Sarah Hsu

always knew I wanted to explore the intersection of health and the environment. In my first year of college, I wrote a paper on the broader health and environmental impacts of hospitals. It didn't take long for Health Care Without Harm to turn up in my research. My undergraduate work later turned to sociology, as I advanced toward becoming a primary care physician.

Several years into my studies I discovered that resources and guidance focused on the environment and health care were difficult to come by in my program — in fact, they were hard to find anywhere. I dug up my old paper and rediscovered Health Care Without Harm, which led me to Dr. Jonathan Slutzman, an instructor in emergency medicine at Harvard Medical School, who became my research mentor.

Over these years I have done a deep dive into research — even into a dumpster, conducting the first audit of emergency room waste — as well as policy, advocacy, and of course, patient care. I helped launch Medical Students for a Sustainable Future as well as a podcast dedicated to climate change and health, and contributed to syllabi for medical schools to increase understanding of the negative impacts of the health care sector and its greater potential to contribute to wellness and healing.

Through it all I've held a clear vision of team-based, patient-centered care that acknowledges the challenges we face. One of the reasons I entered this field was because I knew that in the future more people would require more support because of climate change. Patients would need reliable



After attending Health Care Without Harm's CleanMed conference as a Stephanie Davis Award winner, medical student Sarah Hsu gained the knowledge and inspiration she needed to conduct her medical school research project. Her recently published research helps us understand the magnitude and impact of emergency department waste. (Photo: Sarah Hsu)

access to electricity for medications. They would need shelter as disasters drive displacement. They would need mental health services as trauma spreads.

When I began my rotations, I realized that my preparation was not for the future. The future is here. The future is now.

There is one landfill for the entire state of Rhode Island, which will be full in 10 to 15 years. Will another have to be created, causing more health issues for another under-resourced community? Or will we ship our waste, incurring costs as we impact the health of others somewhere else? We are the fastest-warming state in the continental U.S. What will happen to those who must walk to work or struggle to pay electric bills? When a Category 1 hurricane hit our coast recently, some could not find shelter and were injured as they endured the storm outdoors. What will happen as more have to flee their homes and storms increase in strength and frequency?

What I find over and over is that the biggest thing that stands in our way is education, within and beyond the health care sector.

It sounds simple. Yet, when I share what is happening and what is possible the suffering and harm we can prevent, and all that I have learned through the Health Care Without Harm network lightbulbs switch on.

Health care is caring for the planet. It is caring for those who struggle the most because the systems we are all a part of do not care for them.

Health care providers have outsized power and capacity to change these systems and support health beyond their walls. Today's 'medicine bags' can be filled with new tools, along with commonsense tools we have barely considered: In places with heavy air pollution or frequent wildfires, we can secure bus passes so pregnant individuals can arrive safely at appointments. We can write a letter for a patient with multiple sclerosis so their electricity

"So much of the conversation around health care, resilience, and sustainability focuses on individual responsibility. We must shift focus from what an individual should do. to what we can all do, to protect communities and patients from environmental factors beyond their control."

SARAH HSU

Brown University third-year medical student

won't get cut off in a heat wave. We can provide data-driven testimony for legislators crafting laws to keep constituents safe and healthy.

We have a long way to go. Programs and studies must be funded to create new resources and to share what we already know. It is not sustainable or efficient for doctors and nurses to do this work for free, knowing it is the right thing to do, alongside the incredible demands of patient care and administrative duties. We all need to expand our understanding of what health care can achieve, and invest accordingly.

My dream is to practice primary care alongside social workers and mental health professionals for our most marginalized and at-risk neighbors. When I finish medical school and take an oath to do no harm, I recognize that my work will become more difficult as conditions change. But I will never give up my vision of making sure the care I provide, the institution I work for, and the sector I am part of contribute to a deeper commitment: to provide real healing.

Sarah Hsu is a third-year medical student at Brown University, pursuing her degree through the Program in Liberal Medical Education, an eight-year training program that combines undergraduate education with professional studies in medicine. She is also pursuing a master's degree through the Primary-Care Population Medicine Program at Brown. She received Health Care Without Harm's 2019 Stephanie Davis Waste Reduction and Pollution Prevention Award and Scholarship.



The path to healing: 25 years of Health Care Without Harm

wenty-five years ago a group of nonprofits began to collaborate on projects to accelerate progress toward shared goals at the intersection of the environment and human health. As partnerships deepened, challenges became more acute, and funding continued to flow, it became clear that a new network was coming into formation. After all these years, a bold vision has come into even sharper focus and tremendous progress has been made. From eliminating mercury in the health care sector globally to piloting community-driven models that improve social and environmental health outcomes, Health Care Without Harm is building on all it has learned and is poised to move beyond no harm to the deeper healing that is needed now, more than ever.

As the world responds to COVID-19 and the intertwined social, political, and economic crises it has spawned, we find ourselves at a crossroads. One path involves propping up old structures and systems that have led to these crises. The other takes us in the direction of unprecedented opportunity to accelerate a just transition toward equitable, resilient societies that provide quality health care, just work for all, and contribute to a healthy climate.

For our civilization to survive and thrive, we must embrace this new direction and evolve away from systems that value short-term financial profit over ecological viability, health, and well-being. We must build structures that benefit all people, especially the vulnerable and the poor. We must recognize and address the political, social, and economic factors that govern how health and illness move through our communities. As people around the world rise up against systemic racism, we must forge a broad, interconnected agenda that fosters health equity, ecological sustainability, and social justice.

This is all possible. Health Care Without Harm has been doing it for 25 years. Join this powerful, rapidly growing global network of people committed to moving beyond no harm to healing.



Clinicians around the world are standing to dismantle racism in medicine and promote the health, well-being, and selfdetermination of people of color.

Health Care Without Harm serves as the backbone organization leading the global transformation of the health care sector to embrace environmental sustainability within core operations.

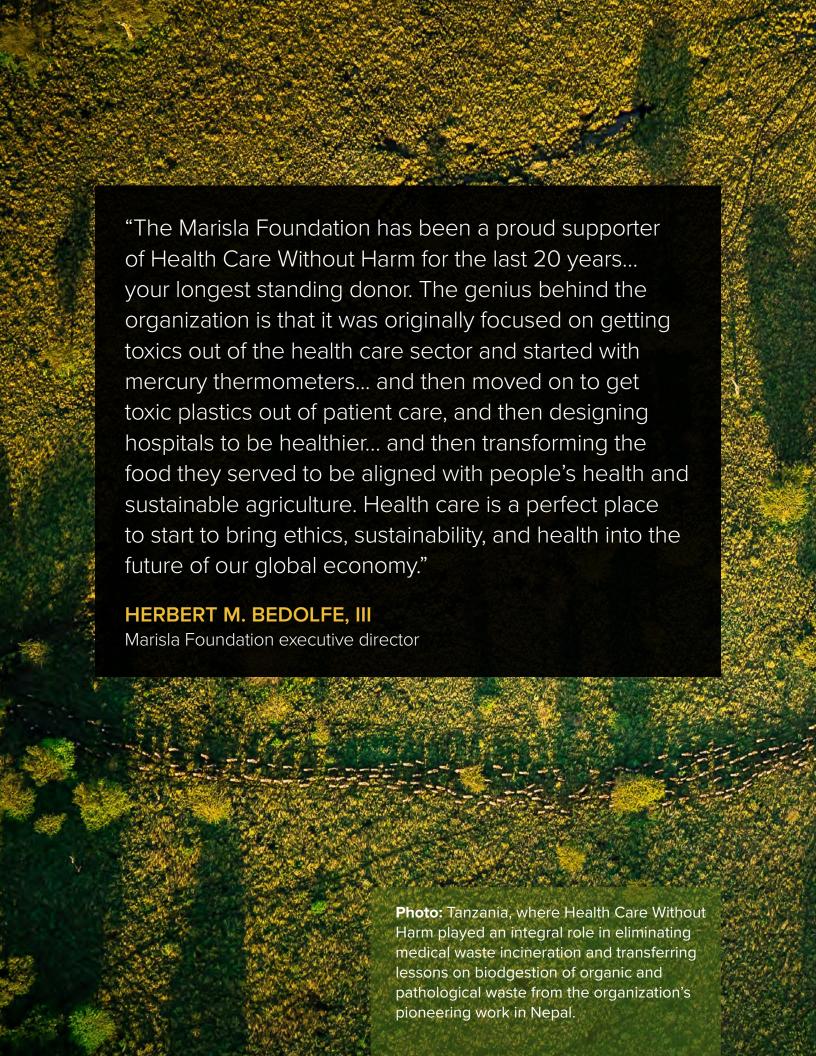
Program areas include medical waste, toxic materials, safer chemicals, green building and energy, healthy food, pharmaceuticals, sustainable procurement, climate-smart health care, transportation, water

Staff includes physicians, nurses, nurse practitioners, dieticians, and other health care practitioners

Regional offices in the United States, Europe, Southeast Asia, and Latin America, where staff work on community-based projects as well as national and global initiatives

Strategic partner organizations in Australia, Brazil, China, India, Nepal, South Africa

Hospital network of 44,000 hospitals treating hundreds of millions of patients in 72 countries



Health goes up when mercury goes down: Systems change through local collaboration and global policy

rom the 1930s to the late 1960s, Chisso Corporation dumped mercury into Minamata Bay, poisoning multiple generations in the coastal Japanese city. The world was put on notice about the toxicity of a chemical commonly found in household and health care products.

Fast-forward three decades. Gary Cohen, Josh Karliner, and the founding leaders of Health Care Without Harm were piloting approaches to address ubiquitous and discrete intersections between human and environmental health. "Around that time a study conducted by the Environmental Protection Agency found that hospitals were a leading source of mercury emissions, because millions of broken thermometers were being burned in incinerators, spewing mercury in the air and winding up in the food we eat," said Cohen.



Health Care Without Harm Asia "I got screened" campaign (Photo: Faye V. Ferrer)

- Systems change can drive transformation faster and more effectively than addressing issues as siloed problems in different geographies.
- Health Care Without Harm mastered systems change in health care in 15 years through its focus on mercury that impact and expertise can now be scaled in one-third the time to address new and urgent problems.
- Lessons from eliminating mercury in health care inform our approach to sector transformation through three pillars of work: resilience, mitigation, leadership.

A clear vision emerged: Eliminate a pervasive, deadly element found in nearly every health care setting globally - specifically, mercury-based devices to measure the body's temperature and blood pressure.

Health Care Without Harm started small, organizing a Mercury Awareness Day and thermometer swap with Beth Israel Deaconess Medical Center in Boston, substituting more than 1,000 mercury thermometers with reliable, affordable digital alternatives. The event was a success and quickly spread to other Boston-area hospitals and then to 5,000 hospitals across the U.S., decreasing exposure to this toxin while increasing collective health and resilience.

The grassroots effort was making progress, but the emerging coalition of hospitals and health care systems, medical professionals, community groups, labor unions, environmental organizations, and religious groups needed help outside the health care sector to avoid mercury altogether. This meant partnering with socially responsible investors and community allies to demand that pharmacy chains stop selling mercury thermometers. It meant working with academics, like the University of Illinois School of Public Health, to conduct

peer-reviewed research on the risks of mercury devices and the potential of alternatives. It meant advocating in city councils and state legislatures to prohibit the sale of devices containing mercury.

Through it all Health Care Without Harm emphasized science alongside practical solutions. By 2005, nearly all U.S. hospitals had phased out use of mercury-containing devices. It was time to go bigger. "In order to protect children everywhere, we knew we had to eliminate mercury across the entire world," shared Cohen.

Next up, Health Care Without Harm leveraged the European Union's nationalized health systems' commitment to phase out mercury in health care. Mercury thermometers were banned in 2007, blood pressure devices in 2012. While the U.S. and Europe took action, however, other nations were struggling to provide even the most basic health care. Research showed that in many places the annual cost to replace broken devices, which exposed the toxin, often covered the cost for digital replacement devices. And mercury isn't just a localized problem: After it's released into the air, it settles in water, where it changes into methyl mercury, enters the food chain, and then enters people, where it can contribute to cognitive damage and other health issues. If mercury is not banned everywhere, it continues to be a problem, even where it's no longer in use.

Building on the U.S. and European bans, Health Care Without Harm continued forging ahead, applying the framework it developed in the late 1990s working with Boston hospitals to eliminate mercury in the health care setting.

A broader model for systems change that could be adapted anywhere in the world, on a range of issues, had come into focus:

- · Begin with local projects before scaling
- · Demonstrate the business, science, and technical cases for change
- Create strong coalitions of diverse partners
- Use the market to inform science-based policy
- Use successes in one arena for broader transformation

Health Care Without Harm's approach to mercury, which always included local hospitals and health care actors as well as on-the-ground partners. quickly gained momentum in the Philippines, Brazil, India, South Africa, and elsewhere. As mercury-free health care caught on, government leaders met in Stockholm in 2010 to begin working through the first-ever global treaty to regulate mercury use and emissions.

This work culminated in a global legally binding agreement in 2013: The United Nations' Minamata Treaty, named for the place which for decades suffered the worst mercury poisoning in the world.

While impressive and necessary, this is just one important step toward a world free from the toxic effects of mercury. Coal-fired power plants remain the greatest source of mercury emissions in the U.S. and the second greatest threat globally, which creates significant health challenges for adults and children. And based on all that Health Care Without Harm learned while developing its model for global systems change — in a sector as complex as health care, and operating at a massive economic scale — there is a path to transforming the sector, to not only 'do no harm,' but to ensure the healing that all people, and our planet, urgently need.



Digital thermometers at the Hospital de Niños in Córdoba, Argentina (Photo: Salud sin Daño)



Anchors in Resilient Communities model: Designing and delivering health in partnership

think of a community the way a doctor looks 441 at a body: Is the heart strong? Is the mind strong? Is there healthy flow throughout of nourishment, air, and the life-force required to maintain healthy functioning?" reflected Denise Fairchild, executive director of the Emerald Cities Collaborative and board member of Health Care Without Harm. "Resilience is something that requires collective effort, fixing systemic contributors to disparities in health, income, and climate, not only allowing individuals to bounce back — but ensuring that all of us can 'bounce forward'."

Fairchild is someone who knows about nurturing collective efforts. "After the 2008 financial collapse, it was clear that more organizations needed to learn how to 'row together' to avoid sinking as individual ships. We launched Emerald Cities as a coalition of environmental, community, and labor organizations that partners with municipalities, universities, schools, and hospitals to create good jobs while decreasing carbon footprints." After years working with cities and educational institutions, it was time to consider how



A farmers market at Kaiser Permanente provides hospital staff and patients with locally sourced produce while supporting community food producers and shortening the food supply chain. (Photo: Kaiser Permanente)

- Community and individual health and resilience can be improved by integrating the underlying social determinants of health — physical environment, economic disparities, food and housing insecurity, and more — into the conventional treatment of disease.
- Rather than a primary focus on treating disease, hospitals and health systems are creating a new social contract for health care that is in service to their communities, individuals, and society by building true health, wealth, and climate resilience.

to partner with hospitals. "We knew Health Care Without Harm would be key to our success, given their deep relationships and expertise working with the health care sector."

It didn't take long for the new partnership to drop deep roots. In 2013, Health Care Without Harm and Emerald Cities first began imagining what it could look like to develop a blueprint for community-centered collaboration with health care anchor institutions. Today, the Anchors in Resilient Communities (ARC) model is a framework that can be applied to many industries. By co-creating mutually beneficial partnerships with anchor institutions, the approach ensures investments in the infrastructure needed to improve community resilience, while building health and wealth, and is replicable in other regions and other sectors, from energy and food to waste.

Like any joint effort, Emerald Cities and Health Care Without Harm had to decide where to start. The East Bay in California offered strong existing partnerships, alongside some troubling statistics: For example, residents of West Oakland (93%) people of color) have a life expectancy 10 years shorter than people who live 6 miles away, in the Berkeley Hills (53% white). How could health care institutions and the community work together to help close this gap? In 2016, the research and development lab Democracy Collaborative was



In 2020, Kaiser Permanente became the first U.S. health system to achieve carbon neutrality. On-site energy sources reduce emissions, cut energy costs, and enable hospitals to continue operations uninterrupted during extreme weather and climate events. (Photo: Kaiser Permanente Santa Clara Medical Center)

contracted to evaluate the regional ecosystem and identify gaps and opportunities to build community wealth and resilience, while serving the needs of the health care sector. The assessment identified a business opportunity to increase local food production and distribution.

Health Care Without Harm's long-time partner, Oakland-based Kaiser Permanente, had spent years improving energy efficiency, reducing toxins locally, and revolutionizing procurement to grow businesses led by people of color, and became a critical collaborator in developing the ARC model. For 25 years Kaiser had worked with FoodService Partners (FSP) to source and distribute food products for their California-based hospitals. As Kaiser increased its commitment to procure 100% local and sustainably produced food, FSP needed to grow in turn. The ARC model's first initiative is supporting the development of a new food commissary for FSP that meets the standards of both Health Care Without Harm and Kaiser, for local and sustainable foods, while advancing Emerald Cities' goals of creating quality livelihoods for local residents, including those who experience barriers to employment.

The ARC model made these commitments explicit in a collaboratively developed Community Benefits Agreement, which outlines the process for hiring, paying fair wages, and ensuring that FSP reinforces and grows a local network of farmers and producers. Kaiser stepped up in a big way, committing to a five-year term rather than their two-year standard, contracting with FSP to provide inpatient and outpatient meals. Kaiser

also contributed \$2 million to close the financing gap on a new 85,000-square-foot facility in Union City. Scheduled to open in early 2021, the food production facility will provide a guaranteed market for sustainable and local farmers, up to 200 quality union jobs, healthy food to distribute to area hospitals and schools, and eventually community ownership of the operation.

Reflecting on the work ahead, Fairchild is clear-eyed, and optimistic. "Resilience and equity aren't easy, quick or cheap. It's about establishing real relationships and building trust between anchor institutions and their communities, and forging an elastic infrastructure that can expand and shrink as conditions change, from natural disasters to pandemics. Fortunately we have strong models to build on, and partners eager to resource and build greater resilience, together."

To say this collaboration has been a success would suggest it is a historical case study, rather than an active and expanding framework for systemic transformation. The ARC model has taken form thanks to the vision, persistence, and partnership between Emerald Cities and Health Care Without Harm, improving communities and health outcomes beyond what could have been imagined.



University of California San Francisco is a member of the Cool Food Pledge, a platform to help hospitals offer diners more of what they want while slashing food-related greenhouse gas emissions, saving costs, and improving health. (Photo: University of California San Francisco)

"2020 highlighted the vulnerabilities in our supply chains and the way we evaluate risk. We know our communities and health care providers are more resilient when they choose local, low-waste solutions and insist on healthy environments. The decisions we make now will define the well-being of generations to come. This is the time to do it right."

PAUL BOGART

Health Care Without Harm executive director

Photo: Argentina, one of 10 countries where Health Care Without Harm partners with the United Nations Development Programme to integrate sustainable procurement and purchasing into the health sector with the Sustainable Health in Procurement Project.

Reducing harm, increasing health: **Detoxing supply chains** for greater resilience

ohn Ullman first discovered Health Care Without Harm when he was a sustainability manager at Harvard University.

"Building on Harvard's existing leadership and innovations to support health and wellness, I helped pilot Health Care Without Harm's Healthy Interiors initiative to reduce toxic chemicals in furnishings throughout the campus, adapting a strategy for the health care sector to higher education," he recalled.

This was one of the earliest steps that transformed Harvard's procurement processes over the last several years, supporting a new way of evaluating multimillion-dollar purchasing decisions for building materials, and improving the health of the university for students, faculty, and staff.

The health care sector can have an outsized influence on many other types of institutions, like those in education.



Ronald Reagan UCLA Medical Center saved over \$1.1 million and diverted 297 tons of waste after switching to reusable isolation gowns in 2012, and UC Health is now looking to expand the program to the entire system. (Photo: UCLA Health)

- Health care must leverage its economic power to transform the economy by moving away from fossil fuels, toxic chemicals, and industrial agriculture.
- In the United States, the health care sector represents 18% of GDP. Globally, it represents 10% of GDP.
- The health care sector is a major contributor to climate change globally, which is destroying our health and the health of the planet. Change can happen quickly if the sector prioritizes decarbonization.

Health care produces a significant amount of waste: 5 million tons annually in the U.S. — that's 29 pounds of waste per bed per day, and 25% of it is plastic. In the case of hazardous chemicals, many common household and commercial products may be harmful to individuals and communities, containing or releasing hazardous materials during manufacturing, use, or disposal. When health care facilities make changes to their operations and procurement to remove dangerous chemical ingredients, they impact the broader marketplace and other purchasers.

After years of evolving Harvard's practices, Ullman now serves as director of Safer Chemicals and Procurement at Health Care Without Harm. He sees from the inside how the organization has led the health care sector to leverage its enormous buying power and partner with entities along the supply chain, beginning with makers of small parts and components all the way to consumers of finished products. Ullman's work ensures health care spaces, supplies, and materials contribute to healing.

Like many on the Health Care Without Harm team, his career began in the health care sector. Ullman was a cancer researcher at Johns Hopkins University's School of Medicine. "One day I had this a-ha moment: Why spend my life investigating new cancer treatments when I could focus on preventing cancer in the first place? It was a paradigm shift. I've never looked back," shared Ullman.

One of the most powerful resources available to detoxify healing environments is Health Care Without Harm's Sustainable Procurement Guide.

The first of its kind for the health care sector, the guide launched in 2020 in four languages and is used by hospitals and clinics to optimize operations while improving health conditions. Health Care Without Harm is currently collaborating with the United Nations Development Programme to develop globally validated environmental health and human rights standards for health care products that will direct tens of billions of dollars of health care spending around the world.

The guide outlines a process to examine what products are made of, where they come from, who made them, who is affected by their production, how they will be disposed of, and whether a product needs to be made or used at all. It involves supply chain management, materials management, logistics, procurement, and strategic sourcing activities. Following the steps in the guide helps institutions save time and money, foster employee engagement, enhance collaboration among internal stakeholders, attract partnerships and resources, improve environmental health, position themselves as leaders within their communities, and provide better patient, employee, and community health.



Purchasing products with recyclable materials is one of the many strategies health care facilities can employ to implement sustainable procurement. (Photo: Michael Harder, Aarhus University Hospital)

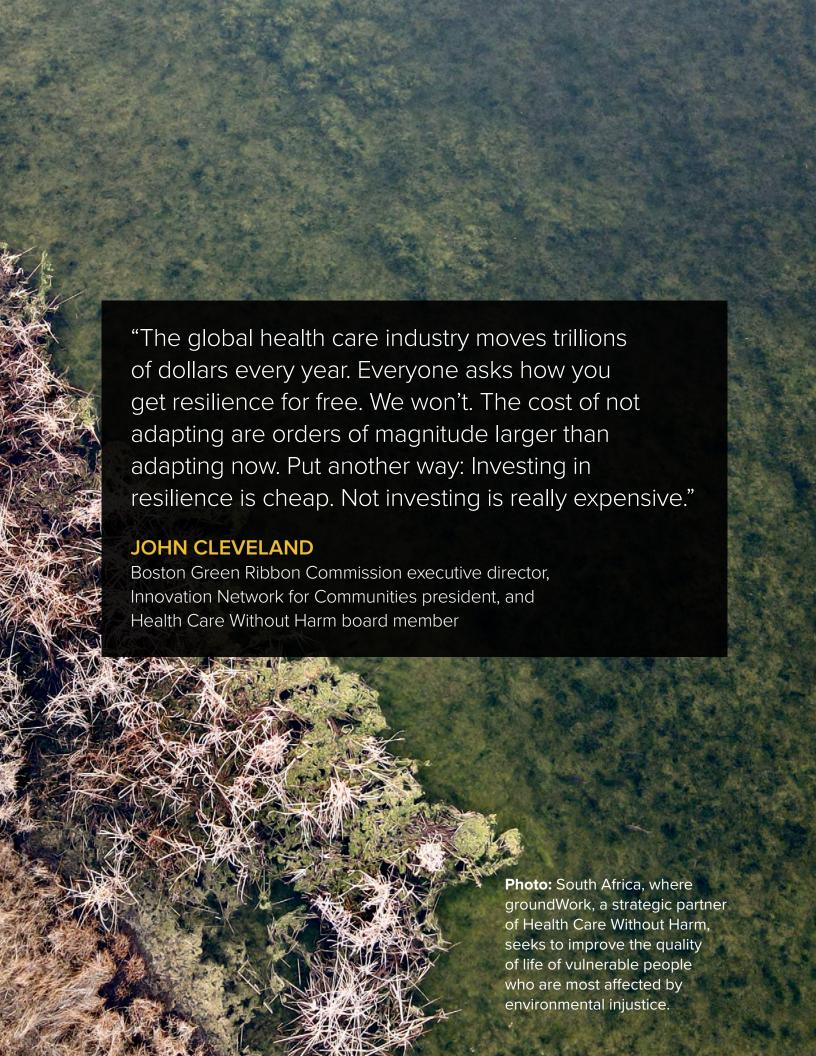
Supply chain resilience has been front and center this year. Institutions that were already thinking critically about procurement and the toxic effects of common hospital products have had an edge in addressing COVID-19-related impacts on supply chains. Early in the pandemic, there was a push toward excessive use of hazardous chemical treatments and disinfectants. Building on its previous evaluation of the use of antimicrobials on furnishings, Health Care Without Harm released an updated report to address antimicrobials in the context of COVID-19. The report found no high-quality evidence indicating that antimicrobial agents prevent health care-associated infections beyond the CDC's recommended procedures. The report provided those managing facilities with the confidence and data needed to limit the use of these chemicals, save money, and support a healthier environment for staff and patients.

Hospitals that had developed a culture and a process for considering the full risks of substances and products were also more resilient as they navigated shortages of equipment and disposable products due to the pandemic. This in turn scaled up the safe reuse of PPE like gowns and masks, and decreased waste, while producing valuable research on ways facilities could operate safely while mitigating challenges to acquiring supplies.

All of these efforts, taken together, make health care environments safer and stronger.

"When it comes to evaluating resilience in supply chains and health care operations, the pandemic has been a warning shot, like Hurricane Katrina was a warning shot for me personally about climate change," Ullman said. "We know that more of these kinds of disruptions lie ahead, particularly from the effects of climate change. We've muddled through but haven't been thinking holistically and from a systems approach about the vulnerabilities and risks we've created."

Health Care Without Harm founder Gary Cohen added, "As private companies consider their impact on the public commons, this is a rare moment to re-evaluate what it means to create and maintain environments for healing on every level."



Movements move when health care leads:

Accelerating progress for all

o much human activity operates in a silo: We learn a skill or trade, adopt a cause, and if we're lucky, our passion and purpose infuse our daily lives in a meaningful way that is equitably compensated. Even when we make progress — hard at work, heads down — it's easy to lose sight of intersections and opportunities.

Since its founding 25 years ago, at the heart of Health Care Without Harm has been an integrative mindset: passionate, brilliant, committed leaders who have insisted that by transforming an entire sector, it was not only possible to turbocharge many other aligned efforts, it was imperative. To heal people, we must heal the planet — complex, multi-layered, emergent, and urgent work.

This movement that began in one hospital in the United States with the bold vision of transforming health care — representing 18% of the U.S. economy and 10% of the global economy — has burgeoned into a 72-country mobilization committed to lowcarbon operations and weaving across a tapestry of efforts to create and nurture conditions for wellness.

Alongside advocates for non-toxic environments, quality livelihoods, and food and housing security, just a few examples of Health Care Without Harm's impact:

- Mercury eliminated from the health care sector globally
- \$3.2 billion saved from cleaner air, enough to buy health insurance for 700,000 Americans for a year
- 1.7 billion tons of waste diverted from landfills, enough to fill 7.5 million Olympic swimming pools.
- 1.68m metric tons of CO₂ avoided, equal to 363,000 cars off the road for a year



In October 2019, Health Care Without Harm founder Gary Cohen and the Health Care Climate Council met with Rep. Kathy Castor, chair of the House Select Committee on the Climate Crisis, along with Rep. Suzanne Bonamici and committee staff during a full day of meetings on Capitol Hill.

From national health ministries to municipal governments, private health systems to nonprofit clinics, corporate leaders to community organizations, the massive capacity of the health care sector is being engaged to bend the arc on the climate crisis and set a course that can ensure ecological viability and the well-being of the 7 billion people who share the planet. Physicians are the most trusted source of information on climate, along with the World Health Organization and local public health departments. Health Care Without Harm is the only global nonprofit working deeply with these leaders to connect and educate efforts across movements.

Now is the time to act — and the health care sector is responding.

Institutions are setting ambitious goals to address the negative impacts of their operations — the first step toward transformation that meets the scale of the challenges we face. England's National Health Service, the largest public employer in the United Kingdom with 1.3 million staff representing 10% of the country's GDP, has committed to decarbonize



At Climate Week NYC 2019, Rachelle Reyes Wenger (second from right) of CommonSpirit Health, a member of the Health Care Climate Council, sat on a multi-sector panel of experts, emphasizing health care's leading role in climate action, policy, and resilience.

by 2050. The Ethiopian government, overseeing a growing health care sector, will reduce emissions by two-thirds by 2030. Providence, employing 120,000 caregivers in 51 hospitals and 1,085 clinics across the Western U.S. and Alaska, will be carbon negative by 2030. The United States' National Academy of Medicine announced their next Grand Challenge will focus on the intersection of climate and health.

Health Care Without Harm's network is on the front edge of this important work. A core group representing more than 22,000 health care institutions in 34 countries and 36 states in the U.S. has committed to the Health Care Climate Challenge.

The Climate Challenge operates across three pillars: mitigation, reducing health care's own carbon footprint; resilience, preparing for the impacts of extreme weather and the shifting burden of disease; and leadership, educating staff and the public about climate and health and promoting policies to protect public health from climate change.

As institutions move toward bold goals across a wide range of shifting, difficult conditions, Health Care Without Harm will be there every step of the way, continuing to architect a global roadmap toward the vital progress we all need. Learning

from and leading alongside a diverse array of partners, all over the world, this work includes educating allies, informing policy, and aligning advocates who have been working toward a shared vision, often just out of sight of one other.

Meanwhile, the work of health care becomes more dynamic, acute, and challenging every day — with a global pandemic impacting millions of lives, including frontline workers, and unrest and pressure to address centuries-old systemic discrimination and collective trauma. Healing in this context has become more urgent, even as it has become more complex. As the sector moves toward climate mitigation and adaptation, the moral mandate to "do no harm" requires that the people most affected by environmental changes are centered, not only because clinicians will continue to serve patients with complicated, timesensitive health care needs, but because the most vulnerable people have done the least to cause the problems that are impacting their lives.

Through hundreds of collaborations, ranging from global to neighborhoods, Health Care Without Harm has launched and nurtured coalitions that are moving entire sectors. At its core this means embracing the mission of health care — to do no harm — and going further, insisting on moving toward the deeper healing that is so urgently needed.



In 2019, Health Care Without Harm presented its work and vision at the World Health Assembly and UN Climate Action Summit. Pictured above, staff and network partners experience an air quality simulator that mimics air pollution levels of cities around the world on the grounds of the UN Headquarters.



Creating healing environments: Clinicians leading the way

r. Amy Collins, an emergency medicine physician in Framingham, Massachusetts, wasn't always a climate advocate.

"One day I was picking up my son from school, and he reprimanded me because the car was idling — his teacher had just read the class a story about climate change and polar bears. He made me promise to never idle again, and to take climate action," she recalled. "We began improving practices at home right away — more recycling, reducing waste, starting a backyard garden and choosing local and sustainable food when shopping, making some lighting upgrades, and participating in a town energy efficiency program."

But it wasn't enough to focus only on her family's behavior.

"At work I saw dozens of ways that the hospital could mitigate our footprint as well, but I wasn't sure where to start," Collins said. "When I discovered Health Care Without Harm, I knew I had discovered my passion and a new career path. I had access to the information and inspiration I needed to make a pitch to my administration to start a sustainability committee — and then, I was off and running."



In 2019. Dr. Collins and thousands of clinicians around the world joined the global climate strikes urging governments and corporations to take bold climate action.

"I am so grateful to work alongside the people in the Health Care Without Harm network. They bring heart to this work and their standards for excellence keep me inspired and growing. In many ways this work is my wellness."

DR. AMY COLLINS

Emergency medicine physician and Health Care Without Harm senior advisor for physician engagement

Collins now leads Health Care Without Harm's Physician Network in the United States, supporting physicians and medical students as they advocate for action on climate, procurement, and community engagement.

"There is such a conflict between the healing mission of our sector and the emissions we create that contribute to the climate crisis. There is a huge opportunity to align operations to protect health, and the bottom line," Collins noted.

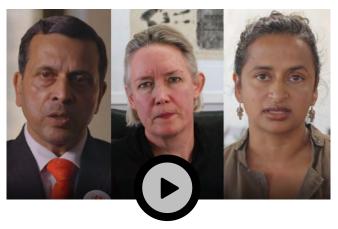
In a sector that represents 18% of the U.S. economy and 10% of the global economy, and is the fifthlargest carbon emitter, mitigation and adaptation not only save and improve lives as they increase resilience, they also advance progress toward efforts like the Paris Accord and Sustainable Development Goals.

Within the growing global network of Health Care Without Harm, clinicians are among those leading the way. What started with a core group of physicians years ago has skyrocketed to include tens of thousands of doctors and nurses doing research, educating other health professionals and their patients, informing policy, and reducing

the harmful effects of the health care sector. With Health Care Without Harm. clinicians around the world discover a network of peers eager to learn more, step into new roles, and shift behaviors and approaches that add up to big changes within, and well beyond, the walls of their institutions.

"When I launched the sustainability program at my hospital we worked hard to engage the community. We started an evening lecture series, established an onsite farmers market, and hosted the first hospitalbased take-back for medications. We collaborated with local farmers and launched a communitysupported agriculture program, including weekly produce for a group of pediatric clinic patients," Collins said. "Everything I learned came from Health Care Without Harm. It made a huge difference as our program grew and became more visible, engaging more employees, patients, and community members, who began to see our hospital as an ally in creating a healthier community."

Clinician-led efforts are gaining momentum both in the United States and around the world. In India, Health Care Without Harm teamed up with the Lung Care Foundation to launch Doctors for Clean Air, a national network of physicians that includes 10 of the major associations for health professionals, activating doctors in every state of the country to educate about the importance of clean air.



In a 2020 video spanning the globe, Dr. Arvind Kumar (India), Dr. Arnagretta Hunter (Australia), and Dr. Aparna Bole (United States) join Health Care Without Harm's Josh Karliner in addressing the impact of fossil fuel emissions on human health and explore collective action we can take to protect people's health from climate change.

"I used to see black spots on the lungs of mostly smokers. Over the last decade or so I saw a series of teenagers with black spots on the lung, and I thought to myself, 'what's happening?' I knew I had to take action," said Dr. Arvind Kumar, a prominent chest surgeon and Lung Care Foundation India's founder and managing trustee.

Since Doctors for Clean Air launched two years ago, it has rapidly grown as doctors and health care practitioners make the connections between air pollution and patient health.

Today the organization operates six regional chapters across the country and continues to expand and address the common causes and growing health consequences of both air pollution and climate change.

Once the pandemic emerged, the network quickly connected the dots and addressed the fact that air pollution creates the conditions for COVID-19 to spread with greater lethality. Doctors for Clean Air warned that "exposure to air pollution long term reduces the capacity of organs to function fully and makes [them] more vulnerable to infections and diseases. In the context of the current COVID-19 pandemic, such individuals are likely to face severe complications."

In June 2020, Lung Care Foundation and Health Care Without Harm's other India partners hosted a first-of-its-kind virtual event with doctors across regions and specialties in India to share strategies to protect air quality improvements that were made during the nationwide spring lockdown. Hundreds of clinicians joined live along with thousands of additional views in the weeks that followed, as practitioners exchanged knowledge and ways to continue reducing air pollution, even as activities across the country began to resume.

"When I meet with other medical professionals and we talk about the climate's effect on health, people say 'this is affecting my child, and my grandparent'," shared Kumar. "The dialogue among trusted medical professionals in India is that we're in trouble, and we're part of the problem, so let's figure this out."

By September, virtual gatherings among doctors, health care executives, elected officials, and corporate leaders reflected deep concern and a greater shared understanding of the intersection of climate and health. Building on the convenings over the course of the year and the research led by Doctors for Clean Air and other Health Care Without Harm partners, an increasing number of decision-makers have been showing up to ask new questions about how to address patient needs in hospitals and clinics throughout the country. As businesses struggle to recruit and retain employees who are moving to less polluted areas, and as health institutions try to keep up with surges in demand for treatment even as the pandemic rages, leaders are committed to seeking solutions together.

In India, the U.S., and around the world, clinicians are stepping up with urgency to become educated, and in turn educate others, advancing the promise of health care to move beyond harm toward healing.

"I'm so grateful that my son challenged me to get involved, so many years ago. I know that my actions, in partnership with thousands of others through Health Care Without Harm, are reducing the negative impacts of the health care sector and helping more clinicians save more lives," Collins said. "The resilience and health of our patients, our communities, and our operations require that we keep going."

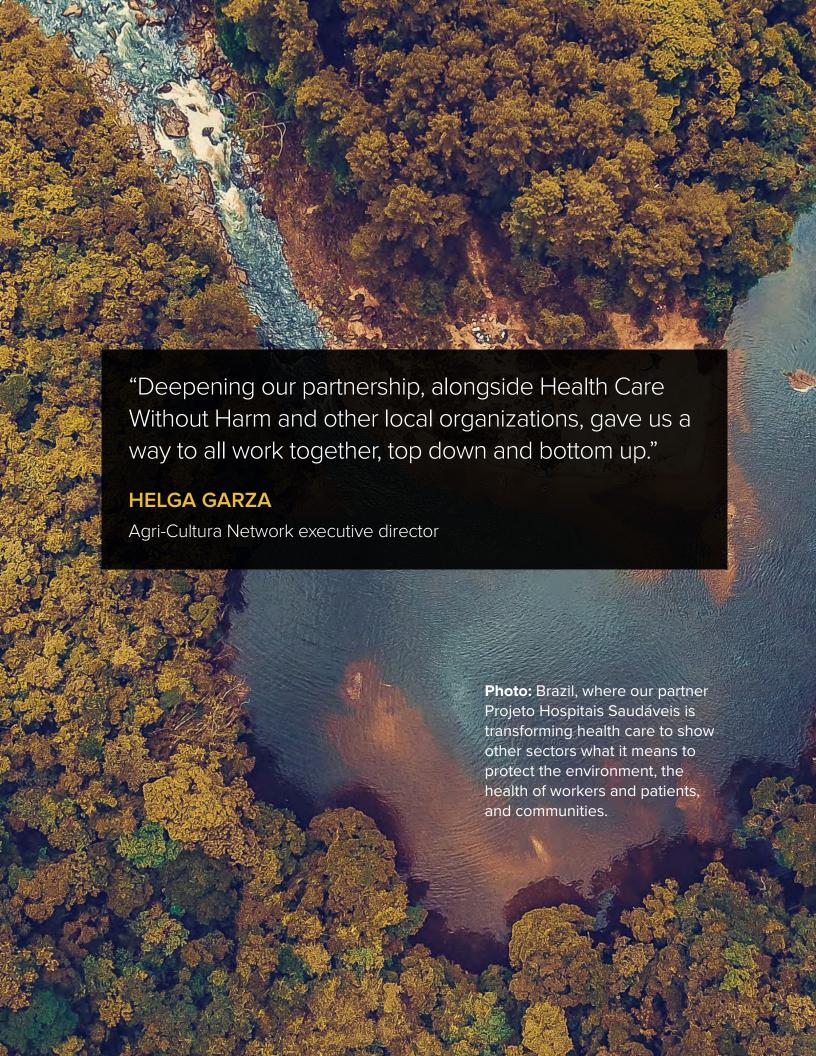








For World Environment Day 2020, a panel of women doctors, nurses, and health workers from across the Global Green and Healthy Hospital network called for the sector's collective engagement to decarbonize health facilities, advance climate action in the region, and prevent future pandemics.



Resilience and health through partnership and ownership: Community-driven systems change

or nonprofit hospitals, one of the most important elements of the Affordable Care Act (ACA) is also one of the least well known. In order to maintain tax-exempt status, hospitals must conduct Community Health Needs Assessments and use a portion of their revenue to improve community health outcomes, a provision of the law called community benefit.

Health Care Without Harm has proven to be an invaluable bridge between anchor institutions and the communities they serve to meet the community benefits requirement.

One tapestry of emerging partnerships is in Albuquerque's South Valley. This region of New Mexico is culturally rich, has robust local and regional health care systems, and is full of creative, committed, and talented leaders at all levels. Health Care Without Harm discovered unique opportunities to support progress toward improved health outcomes through collaboration with a farmer cooperative and brokerage called Agri-Cultura Network.



Joseph Alfaro from Valle Encantado Farms. (Photo: Healthy Here PR at CWA Communications)



Five generations of the Baca family have farmed in the South Valley of New Mexico. (Photo: Healthy Here PR at CWA Communications)

"I first connected with Health Care Without Harm through a community benefits CDC REACH grant," said Helga Garza, Agri-Cultura Network's executive director. "REACH grants are for Racial and Ethnic Approaches to Community Health. Community benefits and a community health approach are fundamentally different from old models. The grant provided frontline communities and health care providers an opportunity to engage local expertise, streamline our shared work, identify gaps, and address systemic underinvestment."

Agri-Cultura had already been working with the regional Presbyterian Healthcare Services through an existing CDC grant, putting in the time and effort to build understanding and trust between the hospital and the community. Garza shared that "deepening our partnership, alongside Health Care Without Harm and other local organizations, gave us a way to all work together, top down and bottom up."

Another key partner for Agri-Cultura is First Choice Community Healthcare, a community health clinic that opened in the South Valley before expanding across the state. University of New Mexico Hospital provides staff, and the clinic has become a hub

for community resilience efforts. After decades of troubling health outcomes, First Choice engaged the community through focus groups and surveys to understand their needs and co-design programmatic and structural changes to address chronic diet-related issues like diabetes, heart disease, and high cholesterol.

The results of the partnership have been transformative, and in many ways, are just getting started.

"At first, our farmers said, 'We just grow food, what do we know about community health?" Garza said.

First Choice understood that the network's knowledge and efforts needed to be centered in order to improve patient health. Today the clinic has become a center for wellness, investing in the community's resilience, and self-determination. They offer a culturally relevant, family-oriented, bilingual nutrition education program. They have a job training center, exercise facilities, and a plan for expansion that will increase local ownership and access to affordable, healthy foods for patients receiving care as well as community residents. First Choice has purchased 20 acres of land around the clinic, where Agri-Cultura farmers are working on four acres in four greenhouses, with room to grow.

Being in growth mode is important for the farmer brokerage, as new local and national partnerships continue to expand supply chains.

A collaboration among Health Care Without Harm, Agri-Cultura, Los Jardines Institute, Coming Clean, Natural Resources Defense Council, and Campaign for Healthier Solutions has led to conversations with a national discount retail chain to introduce locally and sustainably grown produce in New Mexico.

In many rural areas in particular, discount stores are often the only resource for food and goods; through a blend of national and local relationships, this new channel for farmers and producers opened up, simultaneously increasing access to healthy fresh foods for more residents.

Agri-Cultura is poised to secure larger multi-year contracts to provide healthy, sustainably grown foods



The Healthy Here Mobile Farmers Market is a market on wheels that sells produce from Agri-Cultura in Albuquerque's areas of highest need. (Photo: Presbyterian Healthcare Services)

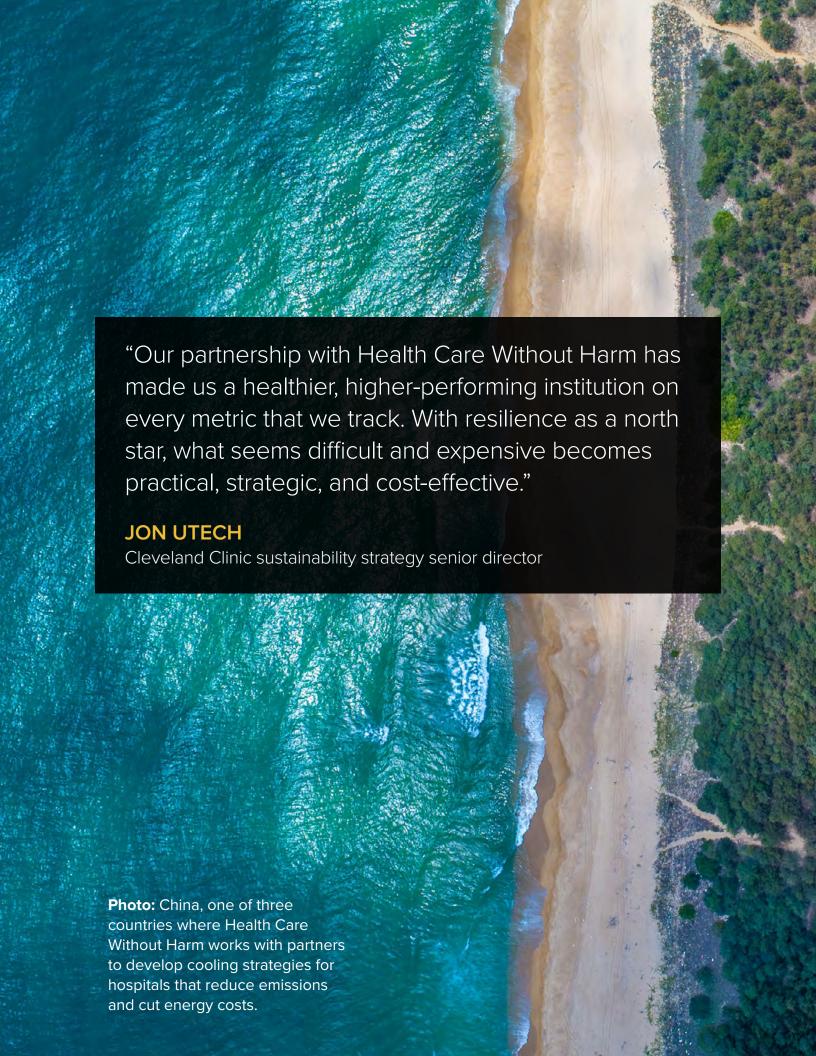
to Presbyterian Hospital as well, ensuring consistent, predictable sales for farmers. Garza and her team have worked hard to leverage every relationship they have, including accessing federal government funds to provide boxes of fresh produce to food insecure residents during the pandemic.

"Our collaboration with Helga and her team is a great example of what we do best," said Gary Cohen, founder of Health Care Without Harm. "There were structural opportunities to weave together a number of local and national organizations and efforts, in particular to meet the community benefit provision under the ACA. As Agri-Cultura Network continues its work with First Choice and Presbyterian, we look forward to supporting efforts to access federal and private grants to help ensure that farmers and producers can scale efficiently to fulfill the volume required by local health care procurement contracts."

"Health Care Without Harm has been a key partner building our capacity to create a healthier, more resilient New Mexico. By inviting us to participate in a webinar with the World Health Organization, we were able to share about our partnership globally, and discover models and solutions that can help us in the South Valley."

HELGA GARZA

Agri-Cultura Network executive director



Leadership in health care resilience = leadership in patient care

limate impacts are threat multipliers for the social determinants of health, affecting the ◆ availability of safe and affordable housing, compromising food and water security, and harming community health and safety. As anchor institutions, hospitals can leverage their purchasing power and social capital to protect health, advance equity and justice, and improve the long-term resilience of the communities they serve.

From reducing greenhouse gas emissions and informing state and federal policy to partnering with community-based organizations, Cleveland Clinic, the largest employer in Ohio, has been a leader in these efforts for more than a decade.

It's no surprise that Cleveland Clinic was among the first institutions to sign onto Health Care Without Harm's Health Climate Challenge, which requires an integrated commitment to mitigation, resilience, and leadership. They didn't stop at reducing emissions and greening their grounds.



Health Care Without Harm's vision moves beyond doing "less harm" to a future where the built environment "heals" or restores ecological and social capital. Cleveland Clinic utilizes these principles both inside and outside the hospital walls through a number of community-centered initiatives. (Photo: Cleveland Clinic)

- Doctors, nurses, and public health officials are trusted messengers for amplifying the intersectional needs of the communities they serve and pushing for change.
- The pandemic has further elevated health professionals to hero status in many places: Now is the time lift their voices to speak out to patients, colleagues, the media, and policymakers at all levels to accelerate work on climate, health, and equity, while the spotlight is on health care.

To improve health outcomes locally, Cleveland Clinic and Health Care Without Harm co-hosted a resilience summit in 2017 to bring together hospitals, policymakers at all levels, community organizations, and neighborhood climate ambassadors to catalyze action and partnerships for a more resilient and healthy Cleveland.

Jessica Wolff, Health Care Without Harm's U.S. director of climate and health, works closely with the institution's team.

"They're one of our strongest collaborators and a longtime, award-winning member of Practice Greenhealth, Health Care Without Harm's network of U.S. hospitals and health systems. They have helped us evolve best practices and are unafraid to do big things," she shared. "When we're looking for a partner on something with the potential to super-charge the sector, we turn to them."

Jon Utech is Cleveland Clinic's senior director of the Office for a Healthy Environment and responsible for making important changes and upgrades to reduce emissions, cut costs, and incorporate sustainability more broadly.

"Our institution decided that excellence in patient care wasn't enough — we needed to use our capacity to tangibly improve the communities we serve, optimize our operations, and work to advance health care overall," Utech said.



Health Care Without Harm, Practice Greenhealth, and Cleveland Clinic worked with Arbor Day Foundation on the creation of standards for the new Tree Campus Healthcare Program, designed to tackle issues like increasing temperatures and unsafe outdoor spaces. Here, Jon Utech joins community members in planting trees for the program. (Photo: Cleveland Clinic)

The results are impressive: Changes to lighting, computer, and air exchange systems resulted in energy reductions of more than 25 million kilowatt hours and savings of \$7 million annually at its Cleveland campus — which in turn has been reinvested in additional efficiency and sustainability projects through a \$7.5 million Green Revolving Fund. The campus has also been recognized by the Arbor Day Foundation as a Tree Campus Healthcare Facility for planting trees and using green space as part of a holistic approach to wellness — providing clean air, stress reduction, promoting physical activity, and more.

As a founding member of the Cleveland Climate Action Fund, they've invested in sustainability projects that meet neighborhood needs including improved stormwater management, increased use of clean energy, local food production, and active transportation.

"40 million Americans are food insecure, which has real costs for the health care sector, to the tune of \$53 billion a year," offered Wolff. "Leveraging the sheer size of anchors to help address this not only improves health outcomes, more simply, it's being a good neighbor."

The institution's leadership in climatesmart health care has meant stepping into the role of community advocate at the national and state levels.

In 2017 and 2019, Utech briefed members of Congress on Cleveland Clinic's approach to climate mitigation, and he's worked closely with Health Care Without Harm to share what's worked in climate planning efforts with hospitals and community-based organizations in other regions. While their Cleveland campus is a major focus, they operate locations across Ohio as well as Florida, Nevada, and Ontario, each experiencing unique impacts of climate change and requiring their own approach to mitigation and adaptation.

Cleveland Clinic will host a resilience summit in Florida, where health care executives, efficiency experts, community leaders, and policymakers will gather to imagine new ways to design and accelerate initiatives. Health Care Without Harm's chief program officer Stacia Clinton will moderate a panel on anchor institution strategies for building community resilience. U.S. Rep. Kathy Castor (FL14), chair of the House Select Committee on the Climate Crisis, will deliver closing remarks.

"Working with leaders like Cleveland Clinic and garnering insights and practices across our global network allows us to do the urgent work of transforming this powerful sector more effectively," Clinton reflected. "While we don't have all the answers, connecting with impacted communities and collaborating with trusted partners is allowing us to shift the paradigm, from harm to healing ultimately saving and improving more lives."



Cleveland Clinic sources 30% of their food locally and sustainably, helping to shape a thriving food system with long-term benefits to the communities they serve. (Photo: Cleveland Clinic)

"A healthy planet means healthy people — you literally can't have one without the other. The people who are working to heal the relationship between humans and nature are the immune system of the planet. We are planetary healers and part of the Earth's defense system to address destruction and extraction.

Our time is now."

GARY COHEN

Health Care Without Harm founder

From harm to healing

Gary Cohen

Twenty-five years ago Gary Cohen, founder of Health Care Without Harm, set out to transform the health care sector, to align it more fully with its mandate to "do no harm." These days he is even more passionate about delivering on the real promise of health care: to ensure the deeper healing that is urgently required for all people and the planet.

Q: Looking back over the past 25 years, does Health Care Without Harm today look the way you imagined?

I never imagined that we would have built a global ecosystem of health advocates who are transforming the healing mission of the health sector. When we started, we were focused on detoxing the health care sector to leverage a broader transformation away from toxic chemicals in our economy. We were not focused on the climate crisis because it seemed so much in the future. But that crisis has come to everyone around the world. We have come to realize that people's health is determined by the social and environmental conditions they face where they live, work, and play, more than their individual behaviors. Health care needs to be beyond individual treatment and heal the communities it serves and the planet that sustains us all if we are to have any hope of supporting healthy people on Earth.



Health Care Without Harm international partners during a strategy meeting at the Amber Fort in Jaipur, India.

Q: What has surprised you over the years? What are some of the unexpected lessons, and who are some of the unexpected allies?

We didn't realize health care was so central to addressing the climate crisis unfolding around the world. Not only does the health sector sit at the epicenter of our collective trauma by taking care of people wounded by extreme weather events, because of its economic power it can model the transformation away from fossil fuels and toxic chemicals to run our economy and show other sectors the way forward. And health professionals are trusted messengers who can help shape a new narrative around climate change with health and resilience as the defining principles. We are just beginning to understand the power of doctors and nurses to become storytellers and advocates for policies that both improve people's health and solve the climate crisis.

Q: Who are some of the individuals and institutions who stand out as champions of this work?

The two early adopters of Health Care Without Harm's agenda were Kaiser Permanente and Catholic Healthcare West (now called CommonSpirit). I like to joke that if we were a rock band, we would have been called "Kaiser and the Catholics." These two systems have led the U.S. health care system in addressing their use of toxic chemicals, fossil fuels, and industrial agriculture in their facilities as well as helping us build a broad network of health systems that are traveling together down the sustainability path. But now there are leading systems in many regions of the world, from the Stockholm County Council to the National

Health Service in Britain to Aravind Eye Hospital in India to the Western Cape health system in South Africa. Sustainable health care is spreading fast through the planet and there are leading hospitals in every region that are models for their countries to emulate. We are no longer needing to convince people of the value of our work. People are coming to us and we are struggling with managing all the opportunities presenting themselves to us.

Q: Where do you see the biggest opportunities for momentum moving forward?

We have designed a comprehensive approach for the health sector to lead on addressing the climate crisis and are building partnerships at every level of society to model the transformation. We are leading the development of a new social contract between health systems and society that entails a partnership model to heal our communities and environment and prevent diseases in the first place. It's both an exciting and perilous time, and our work seems more expansive and gamechanging than ever before.

Q: As you look ahead to the next 25 years, what's giving you hope right now?

This is a moment when there is an opportunity for the transformation of global consciousness. Because of the global threats we face and the technology we have to share ideas, we are seeing the growth of a global movement for planetary survival and justice. It's incredibly exciting and comforting to be part of that movement and to



After 10 years of Health Care Without Harm's work, founders Gary Cohen and Charlotte Brody discussed how to take the organization to its next level.



National health care, public health, and environmental justice organizations met in Atlanta in October 2019 as grantees of the Kresge Foundation to strategize on how to link climate, health, and equity into a coherent approach that would lift all boats.

have an important role to play. Of course there are reactionary forces committed to the status quo that are getting more radicalized, but that's happening at the same time as their narrative is crumbling. More and more people can see the old ways of externalizing harm and treating people and the planet as expendable can't take us forward. Sometimes I feel like I've stepped into the river of justice and renewal. There are ancestors behind me who have passed on their wisdom of the Earth and there are countless others who haven't been born yet who will carry the healing forward. I am just a link in the great chain of being.

Q: If you could whisper one thing in the ear of someone about your work at the intersection of health care and the environment, what would it be?

A healthy planet means healthy people — you literally can't have one without the other. The people who are working to heal the relationship between humans and nature are the immune system of the planet. We are planetary healers and part of the Earth's defense system to address destruction and extraction. Our time is now.



Listen to Gary Cohen, founder of Health Care Without Harm, share more about the work ahead.

Health Care Without Harm consolidated financial statements

For the year ending December 31, 2019

Revenue	
Grants, contributions, and partner support	\$9,020,624
Network engagement	\$3,227,710
Total revenue	\$12,248,334
Expenses	
Program activities	\$10,381,274
Management and general	\$242,897
Fundraising	\$376,212
Total expenses	\$11,000,383
Change in net assets	\$1,247,951
Total net assets beginning of the year	\$3,300,014
Ending net assets	\$4,547,965

Thank you

To our donors

Transformational change takes all of us. Health Care Without Harm thanks the many individual donors who share our vision of elevating community voices, leveraging trusted messengers in the health care sector, and seeking to address fundamental change at the systems level to create greater resilience in the face of many urgent challenges. We are humbled by and deeply grateful for your support.

To our partners

Health Care Without Harm could not create transformational impact without our partners in the health care sector and on the ground in communities around the world. Systems change and greater resilience require a flourishing ecosystem of collaborators at all levels. From community-based organizations to brave clinicians to UN agencies to advocates across sectors, the success Health Care Without Harm has achieved is a testament to our partnerships. It is not possible to make change alone. Thank you for the work you do and for the opportunity to work together.

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In these unprecedented times where global climate change, a devastating pandemic, and severe economic disruption have converged, Health Care Without Harm's global network reaffirms our collective vision to create an ecologically sustainable, equitable, and healthy world.

We are committed to working with our health care colleagues to mobilize our sector's ethical, economic, and political influence to realize this vision. We are committed to nurturing positive change that is sprouting forth everywhere in this time of crisis. We are committed to working in collaboration with other parts of society to foster a world where healthy people are living on a healthy planet, embracing principles of justice and equity.

noharm.org