

Health Care Without Harm believes the health care sector can move beyond "doing no harm" to healing and restoration—of individuals, communities, and ecosystems.

The health care sector is at a moment of crisis in both mission and approach as we move toward global limits. What is the role of health care on a planet where human activity is radically destabilizing the ecological balance, thereby threatening public health? Health Care Without Harm believes the health care sector can move beyond doing "no harm" to participating in healing and restoration—of individuals, communities, and ecosystems. We envision a path that can address the health of individuals and the Earth... one that supports a broader definition of health.



Consumption-based development that relies on fossil fuels, toxic chemicals and industrial agriculture, is harming the environment, degrading ecosystem and human health, and challenging the Earth's ability to sustain life. Advanced health care systems place little emphasis on prevention, wellness and sustained health within the community as they focus resources on disease treatment. The operation of the health care sector contributes to environmental health problems that are increasingly linked with a range of chronic diseases and public health issues: air and water pollution, greenhouse gas emissions, chemicals and waste.

Increasing incidents of severe weather have demonstrated that complex, fossil-fuel dependent health care delivery infrastructure is not resilient and profoundly challenged to provide critical health services when communities are most in need of them. Disasters like Hurricane Sandy and the 2004 South Asian tsunami illustrate the high price we pay for lack of resilience. The fact that health care delivery is energy intensive has social consequences of a different, but no less important kind—climate change impacts, political disruption, and rising cost of care. Imagine if hospitals around the globe adapted to climate challenges, operated using on-site renewable energy; harvested, distributed and recycled clean water; and produced healthy food, so that in extended periods of infrastructure crises, vital medical services could continue without interruption.

Health Care Without Harm envisions health care systems across the globe that can simultaneously address the health of individuals, communities, ecosystems, and the Earth—systems based upon a broader definition of health that recognizes environmental, economic, social and spiritual determinants. Health care systems that not only treat individual patients, but are active participants in sustaining and restoring the environmental and social systems that create the conditions for health. Our goal is to mobilize the health care sector to lead the fundamental social transformation that is necessary to realize this vision. The health care sector can demonstrate both a commitment to saving lives and improving health globally while restoring ecosystems and regenerating the planet. The sheer scale and purchasing power of the health care sector, its position as steward of our health, and the significance of health care organizations in the communities they serve gives health care unique leverage both to reduce its global environmental footprint and to lead a powerful, locally-based worldwide movement to create healthy people and communities.

Cover Image: A patient room in the Lunder Building of Massachusetts General Hospital, part of the Partners HealthCare System. The building received LEED Gold certification for sustainable building and design, with state-of-the-art green features and strategies, including water efficiency, energy conservation, sustainable resources and carbon dioxide emission reductions. Studies have shown that a natural environment can help to promote healing for sick patients. One of the key features of the building is its attention to Natural Light and Greenery, allowing natural light to flood the patient rooms and common areas and incorporating an abundance of plants and greenery. Floor-to-ceiling glass walls overlooking the garden atrium and large windows in each patient room allow daylight to enter throughout the building.

### Climate and Health

Health care must develop resilience to respond to severe weather events and outbreaks of new diseases brought about by climate change, as well as reduce the use of fossil fuels which are driving global warming. HCWH is working with hundreds of leading hospital systems to help them reduce their own greenhouse gas emissions and develop resiliency programs for lessening the impact of climate change on their facili-



ties and their communities. HCWH is also building networks of health care employees to educate, advocate, and organize on the link between climate and health and to increase awareness of the threats to health inherent in climate change.

HCWH President Gary Cohen, far right, speaks with former Vice President Al Gore on Dirty Weather: 24 Hours of Climate Reality.

### Worldwide Mercury Elimination

While HCWH has helped all but eliminate mercury in the US health sector, many other countries are still using mercury-based thermometers and blood pressure devices. Using lessons learned from the successful US effort, HCWH offices and partners in Asia, Africa, Europe and Latin America have worked with hospitals, health systems and ministries of health to phase out mercury in health care. In January, 2013, the world's governments agreed to a Mercury Treaty that will phase out all mercury-containing medical devices by 2020. HCWH played a leadership role in this global win.



# Energy and the Built Environment

HCVVH's Energy and Built Environment staff are working with the Healthier Hospitals Initiative to develop and lead HHI's Leaner Energy plank, which helps hospitals reduce energy consumption, increase energy efficiency, purchase cleaner, environmentally safer energy alternatives, and save significantly on energy costs. The Program is also leading the effort to help hospitals become anchors for developing resilience and community preparedness for severe weather events, which includes placement of building utilities and storage areas, transportation, and logistics.

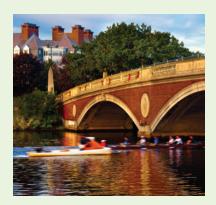
## Safer Chemicals

Hospitals are leading an effort nationally to reduce the use of hazardous chemicals and increase the market for safer chemicals and materials. HCWH helps drive health care toward safer products by identifying model policies and tools, engaging the supply chain, and working to increase transparency about product content. HCWH catalyzed national efforts to eliminate mercury, PVC and DEHP from medical devices as well as dioxins from medical waste disposal. HCWH collaborated with Practice Greenhealth and five major Group Purchasing Organizations (representing \$135 billion in purchasing power) to develop the "Standardized Environmental Questions for Medical Products," a tool to help hospitals identify, request, and procure environmentally-preferable medical products. HCWH is a cofounder of a national coalition working to change federal policy to speed the transition to a safer materials economy.

#### **HCWH Boston**

Modeling programs at one hospital and replicating them throughout the health care system is one way HCWH has achieved its many successes. HCWH-Boston has long created and led some of HCWH's most ambitious efforts, many of which are now models for sustainable building and energy use nationwide.

The Boston Green Ribbon Commission is working closely with HCWH to bring together the City's hospital leaders to collaborate in support of energy efficiency practices and policy advances. HCWH's efforts are widely credited with helping shape Massachusetts's nation-leading utility energy efficiency programs, which helped health care facilities save millions of energy dollars as well as reduce their greenhouse gas emissions.



# Healthy Food in Health Care Program

HCWH is working with hospitals across the country to introduce healthier foods, model healthier eating choices, and transition the local economy towards more sustainable agriculture. The HCWH Healthy Food in Health Care Program is one of HCWH's premier programs, tallying success after success as hospitals embrace more sustainable food service operations. Leveraging hospital food procurement, HCWH hopes to drive the creation of a healthier, sustainable food system, which contributes fewer pollutants to the environment and helps improve public health by reducing the nation's epidemic of obesity and related illnesses such as diabetes and heart disease.





Nurses advocating for environmental health

## Nurses as Change Agents for Sustainable Health Care

To support a healthy and sustainable world, health professionals must be at the forefront of education and disease prevention efforts. Nurses are considered the most trusted messengers on health care by the general public. The HCWH Nurses Work Group (NWG) engages nurses as leaders and health advocates, and provides them with training and education on issues related to sustainable health care. HCWH also identifies opportunities for them to be professional spokespersons and advocates for change in the health care setting, influencing public policies and practices that affect our nation's health.

## Research Collaborative

The Health Care Research Collaborative was developed as a partnership between HCWH and the University of Illinois at Chicago, to meet a need for more research and data on topics related to implementation of sustainable health care operations. Working with academic researchers, hospital and health system staff and executives, and others, the Research Collaborative has published more than a dozen reports. The collaborative nature of the projects makes the Research Collaborative well positioned to help the health care sector use environmental health science, current research, and scholarly inquiry to make informed and successful sustainability



# New Technologies: Biological Treatment for Hospital Waste in Developing Countries

HCWH and partners are taking steps to harness anaerobic digestion, vermiculture and aerobic digestion to dispose of organic wastes from hospitals where municipal waste disposal systems are poor. With support from HCWH's partner, Health

Care Foundation Nepal, the World Health Organization and HCWH have worked together to help install a digester at Bir Hospital in Kathmandu. The bacteria inside it convert the waste to biogas- a renewable cooking fuel. In this 460-bed hospital, the biodigester could produce the equivalent of a thousand dollars' worth of cooking gas each year.







Health Care Without Harm and Practice Greenhealth are co-organizers of the CleanMed Conference & Exposition, the nation's premier conference for those engaged in sustainable health care. Each year, more than 800 attendees participate in sessions on sustainable leadership, greening the operating room, healthy food, green building, and reducing chemical use, and share best practices on how to develop sustainable operations and advocate for environmental health. Health Care Without Harm also co-sponsors CleanMed Europe, which focuses on international health care sustainability efforts. CleanMed Europe allows for exchange of ideas, contacts and information at all levels that helps foster collaboration among health systems in Europe and beyond.



Thirteen influential U.S. health systems, comprising over 500 hospitals with more than \$20 billion in purchasing power, have partnered with HCWH, Practice Greenhealth and the Center for Health Design to create a sector-wide approach to embed sustainability into the core operations of U.S. hospitals. The sponsoring hospital systems are providing proven sustainability roadmaps, guidance, and tools free of charge to every hospital in the United States to improve health care delivery, improve community health, and reduce health care costs. HHI is engaging the leadership of its enrolled hospitals to address changes in the health care system to achieve a new vision of health that includes more preventive and wellness services from hospitals, as well as leading changes in their community to promote greater community health.



In 2012 HCWH launched Global Green and Healthy Hospitals—a worldwide network aimed at building a global community of hospitals and health systems committed to more sustainable health care and healthy communities. Founding members represent the interests of more than 4,000 hospitals on five continents and include the Indonesia Hospital Association, Australia Hospitals and Healthcare Association, Chinese Hospital Association (Architectural Branch), Ministry of Health of Thailand, England's National Health Service, the city-wide public health systems of Mexico City and Rosario Argentina, the Healthier Hospitals Initiative in the U.S., more than one-hundred leading hospitals and health systems in Brazil, and dozens more in India, Korea, New Zealand, Nepal, Philippines, Chile, Costa Rica and more. These hospitals are becoming advocates for policies and practices at the local, national and global levels, while sharing best practices to transform the entire health care sector.



In 2002, Health Care Without Harm teamed with the Center for Maximum Potential Building Systems to develop and launch the Green Guide for Health Care, the first free open-access self-certification green building rating system specifically tailored to the unique design, construction and operational realities of the health care sector. It expanded beyond the US Green Building Council LEED® tools framework with an explicit health focus, including credits addressing material health, evidence-based design issues such as outdoor places of respite and acoustics, as well as an increased emphasis on daylight and views. An open-access, self-certification system, the Green Guide was the foundation document for LEED® for Healthcare; more than 300 registered projects used it to inform their green building practices. Today, the Green Guide for Health Care Operations tool continues to provide guidance to hospitals on a broad range of topics, from food to transportation, waste management to environmentally preferable purchasing, and in other areas.



Founded by HCWH in 2009, Practice Greenhealth is the nation's leading health care community that empowers its members to increase their efficiencies and environmental stewardship while improving patient safety and care through tools, best practices and knowledge. Practice Greenhealth also works closely with businesses serving the health care sector to provide guidance on developing safe and sustainable products and services. With more than 1,200 hospital members and 80 business members, it is the nation's leading membership and networking organization that empowers its members to help develop and shape programs to support health care sector sustainability.



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