Health co-benefits of energy-efficient and climate-friendly hospitals

Vital Ribeiro
Health Care Without Harm
Projeto Hospitais Saudáveis
What is Health Care Without Harm?

HCWH’s work sits at the intersection of two core principles—

--the right to health care and
--the right to a healthy environment

* We take the Hippocratic Oath: “First Do No Harm,” as our point of departure.
* We address the paradox inherent in health care systems that pollute and therefore undermine human health.
* We transcend that paradox by advocating for a healthier, more ecologically sustainable health care sector.
Health Care Without Harm is an international coalition of 500 organizations in 53 countries working to transform the health care sector so it is no longer a source of harm to people and the environment.

We work with health professionals, hospitals, health care systems, ministries of health and environment, and international organizations on issues ranging from chemical substitution, health care waste to climate change.

**Offices in:** USA, Europe, Argentina, and Philippines. Partners in South Africa, Tanzania, Brazil, Mexico, Nepal, Indonesia, and India. Members around the world.

"Toward a HealthCare Sector that Promotes Healthy Environments for All"
NOSSA MISSÃO:

Transformar o setor saúde em um exemplo para toda a sociedade em aspectos de proteção ao meio ambiente e à saúde do trabalhador, do paciente e da população em geral.
HCWH Launches Global Green and Healthy Hospitals Agenda

The Agenda sets out to support existing efforts around the world to promote greater sustainability and environmental health in the health sector.

Launched in October 14, 2011 in Buenos Aires, Argentina, the Agenda provides a comprehensive framework for hospitals and health systems everywhere in the world.

It contains ten interconnected goals.
The Ten Goals

1. LEADERSHIP: Prioritize Environmental Health
2. CHEMICALS: Substitute Harmful Chemicals with Safer Alternatives
3. WASTE: Reduce, Treat and Safely Dispose of Healthcare Waste
5. WATER: Reduce Hospital Water Consumption and Supply Potable Water
6. TRANSPORTATION: Improve Transportation Strategies for Patients and Staff
7. FOOD: Purchase and Serve Sustainably Grown, Healthy Food
8. PHARMACEUTICALS: Safely Manage and Dispose of Pharmaceuticals
9. BUILDINGS: Support Green and Healthy Hospital Design and Construction
10. PURCHASING: Buy Safer and More Sustainable Products and Materials

For information on joining the network please visit: www.greenhospitals.net
“Climate change is the biggest global health threat of the 21st century... The impacts will be felt all around the world – and not just in some distant future but in our lifetimes and those of our children.”

The Lancet
Climate Change Is a Global Public Health Issue

- Heat-related illnesses and death
- Extreme weather-related injuries and mortality
- Aggravated chronic illnesses
- Infectious diseases: vector, zoonotic, water and food borne diseases
- Asthma, respiratory allergies, and chronic respiratory disorders
- Malnutrition and child development complications
- Stress-related and mental health disorders
- Population displacement and migration
- Instability and conflict

Climate change is an amplifier of existing health risks
“The health sector must add its voice – loud and clear…we must fight to place health issues at the center of the climate agenda. We have compelling reasons for doing so. Climate change will affect, in profoundly adverse ways, some of the most fundamental determinants of health: food, air, water.”

Dr. Margaret Chan, Director General of the World Health Organization, December 2007
What is the role and the responsibility of the health sector in addressing the most profound crisis of our time?
The Health Sector Can Provide Leadership in Addressing Climate Change

Education
Economics
Adaptation
Mitigation
Action
Education

* The health sector needs to become climate literate. Health care providers and policy makers must understand climate change and its impacts—locally and globally.

* We need develop capacity to understand and address the shifting burden of disease.

* We need to serve as messengers to educate the broader society—that climate change impacts public health and that urgent action must be taken.
A Closer Look at the Economics

In 2007, world health expenditures reached $5.3 trillion USD, $639 per person per year or 8-10% of global GDP.
O Sistema de Saúde no Brasil

- Mais de 5.500 municípios
- 190.000.000 habitantes
- 70% atendida apenas pelo sistema público - SUS - Sistema Único de Saúde
- 7.300 Hospitais
- 432 MIL leitos hospitalares
- 94 MIL estabelecimentos de saúde
- Entre 3 e 5 milhões de trabalhadores empregados diretamente na assistência à saúde

Fonte: IBGE - Pesquisa de Assistência Médico-Sanitária - MAS 2005
O Sistema de Saúde no Brasil

Consumo de recursos naturais e poluição

Em 2010, setor saúde brasileiro movimentou US$ 140 bilhões (6% PIB) dos quais, ~50% foram gastos com:

- produtos, materiais e outros insumos
- equipamentos e tecnologia
- energia e água
- instalações e edificações
Pesquisa em 70 hospitais de todas as regiões do Brasil:

(MACHLINE C. e RIBEIRO FILHO V. - EAESP - FGV, 2004)

* Mais de 80% não dispõe de tratamento de esgotos;
* 44% não tem coleta especial de resíduos perigosos;
* 43% não segregam resíduos perigosos;
* Apenas 23% destinam resíduos à aterros sanitários;
* Apenas 16% separam resíduos químicos;
* Mais de 40% não reciclam resíduos.
O Sistema de Saúde no Brasil

Municípios, segundo a destinação final dos resíduos sólidos domiciliares e/ou públicos - 2008

(Fonte: IBGE/PNSB/2008)
The connection between local and global pollution is key.
### Health Co-benefits of Emissions Reduction

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<tr>
<th>HEALTH</th>
<th>ECONOMIC</th>
<th>SOCIETY</th>
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<tbody>
<tr>
<td>✴ Fewer climate related illnesses, emergencies &amp; premature deaths</td>
<td>✴ Reduce health care costs</td>
<td>✴ Spur demand for more environmentally sustainable products in health care operations and in the surrounding economy</td>
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<tr>
<td>✴ Lower rates of chronic diseases</td>
<td>✴ Reduce overall energy costs</td>
<td>✴ Increase awareness and understanding about climate change as a public health issue</td>
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<tr>
<td>✴ Health gains from climate mitigation related interventions</td>
<td>✴ Improve electricity access &amp; reliability</td>
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<tr>
<td>✴ Decreased health risks to health workers, patients and communities</td>
<td>✴ Increase resilience of health care facilities</td>
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<td></td>
<td>✴ Reinvest savings into improved patient care</td>
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### Climate Change Mitigation Leads to Health Care Cost Savings

<table>
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<th>European Union</th>
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<tr>
<td>Study: 30% cut in GHG emissions by 2020</td>
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<tr>
<td>Health Savings: 10 - 30 billion Euros</td>
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<tr>
<td>Results: Reduction in premature death, chronic bronchitis, restricted activity days, respiratory symptoms.</td>
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<th>India</th>
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<tr>
<td>Study: low emission cookstoves (10 year program)</td>
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<td>Results: lower national burden of acute respiratory tract infections, chronic respiratory and heart disease by 1/6.</td>
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Mitigation

- WHO mandate from member states: develop “programs for health systems that will contribute to reducing their own greenhouse gas emissions”

- The health sector has a significant climate footprint.

- We can lead by example and demonstrate climate friendly policies and approaches in our societies.

- Climate mitigation can provide co-benefits to public health.

- Mitigation and adaptation strategies can work together.
England’s National Health Service

**Footprint:** 18 million tons of CO2 per year, 26% of public sector emissions

**Target Reduction:**
- 10% by 2015
- 26% by 2020
- 80% by 2050
Energy Efficiency


**Cuba:** Hospital General Dr. Agosthino Neto, Guantanamo "Integrated System for Saving and Reducing Energy" achieved a 21% reduction in energy use -- a hospital-wide education campaign, and replacement of air conditioners and refrigerators with more efficient models.

**Mexico:** Centro Médico Nacional La Raza, Mexico City, a comprehensive energy-saving campaign that has allowed the hospital to cut its electricity costs significantly.
Alternative energy

Clinica Davila - Chile - Largest solar project in the country
*264 solar thermal collectors heat more than 70,000 liters of water per day *Savings: US $200,000 per year.

Hospital Clínico de la Universidad de Chile será el primer establecimiento de salud público en instalar paneles solares.
*Ahorrará US $100,000 anuales en agua caliente.
*Disminuirá 108 mil litros de petróleo al año,
*270 toneladas de CO2 que se dejan de emitir a la atmósfera
*Comienzo de una iniciativa nacional en hospitales.

El Hospital Mayor Méredi, en Bogotá, instaló 500 paneles solares para suministrar agua caliente para los trece pisos del edificio
Green building design:

**Peru:** Peru: Hospital National Dos de Mayo, Lima. Original design included features that maximize natural ventilation -- high ceilings, large windows and skylights.

**Haiti:** Earthquake reconstruction, includes Hospital Mirebalais, which will be a green hospital.
**Adaptation**

* We need develop capacity to understand and address the shifting burden of disease.

* We need to strengthen our health systems and make them resilient.
Given that climate change is the greatest health problem we will face this century, it is the obligation of the health sector to advocate for a healthy climate at the local, national and global levels.
HEALTHY HOSPITALS
HEALTHY PLANET
HEALTHY PEOPLE

Addressing climate change in health care settings

Discussion Draft
Global Climate Change and Human Health Resolutions

* World Medical Association, 2009

* International Council of Nurses, 2008

* World Federation of Public Health Associations, 2001
Regional Action on Climate and Health

- Emissions reductions save lives and money.
- Brussels-based lobbying
- Integrate health co-benefits in national campaigns for emissions reductions in Germany, France and the UK, as well as Hungary, Poland and the Czech Republic.
National Actions on Climate and Health--- USA

- Local pollution, climate and health
- Protecting the EPA
- Educating health professionals
- Reducing health sector’s climate footprint

Rep. Fred Upton, protect our kids’ health.
Don’t weaken the Clean Air Act.

www.LungUSA.org
Global Actions on Climate and Health

- Copenhagen and Cancun
- Friends of Public Health Group
- Prescription for a Healthy Planet-- More than 100 Organizational endorsements from orgs representing millions of health professionals from more than 120 countries

WARNING: CLIMATE CHANGE MAY BE HAZARDOUS TO YOUR HEALTH

As health sector leaders representing the interests of millions of health professionals in more than 120 countries, we call on the world’s decision makers to endorse this Prescription for a Healthy Planet and take decisive action in Copenhagen.

David Attenborough
Chairman, Attenborough Global Council

Dr. Paul Farmer
Executive Director, Partners In Health

Dr. Finley M. Bass
President, World Federation of Public Health

Gary Goldsmith
Senior Advisor, Health and Climate

Dr. Michael Giff
Chief, Division of Health and Climate

Dr. Barbara Loomis
President, International Union for Prevention of Climate Change

Dr. Mubarak Muhammad
President, Global Union for Climate Change

Prof. Nikola Filatova
Professor and Director, European University

Dr. Michael Hulley
President, World Union for Climate Change

www.climateandhealth.org
SAVE THE DATE
DEC. 4, 2011
Durban, South Africa
Tropicana Hotel

The First Global Climate and Health Summit, takes place parallel to the COP 17 climate negotiations. It aims to bring together key health sector actors to discuss the impacts of climate change on public health and solutions that promote greater health, as well as economic equity between and within nations.

PARTNERS:
World Health Organization
World Medical Association
Public Health Association of South Africa
International Council of Nurses
International Federation of Medical Students' Associations
groundWork, South Africa
Health and Environment Alliance, Europe
Climate and Health Alliance, Australia

CO-ORGANIZERS:
Health Care Without Harm
Climate and Health Council
World Federation of Public Health Associations
Nelson R. Mandela School of Medicine
University of KwaZulu-Natal

For more information, and to register contact: globalclimate@hcwh.org
* Raise the profile of public health and the health sector vis-à-vis the public debate and global negotiations on climate change.
* Catalyze greater health sector engagement on climate issues in a broad diversity of countries.
* Build a common, more coordinated approach to addressing the health impacts of climate change.
* Develop shared advocacy strategies for strong national and global policy measures to mitigate and adapt to climate change.
Thank you

vitalribeiro@hospitaissaudaveis.org

www.hospitaissaudaveis.org.br
www.climateandhealthcare.org