
Global Public Health and Climate Change: Collaboration to lead by example

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Public Health and Environment



**World Health
Organization**

Public Health and Environment: preventing disease through healthier environments

- Reduce 25% of the global burden of disease
- Promote a healthier environment
 - intensify primary prevention and
 - influence public policies *in all sectors*, so as to
 - address the root causes of environmental threats to health
- Health impact assessment and environmental burden of disease
- Environmental health of the health sector
- Occupational health
- Chemical Safety
- Water, sanitation and health
- Children's environmental health
- Air pollution (in and outdoors)
- Radiation safety
- Climate change and health

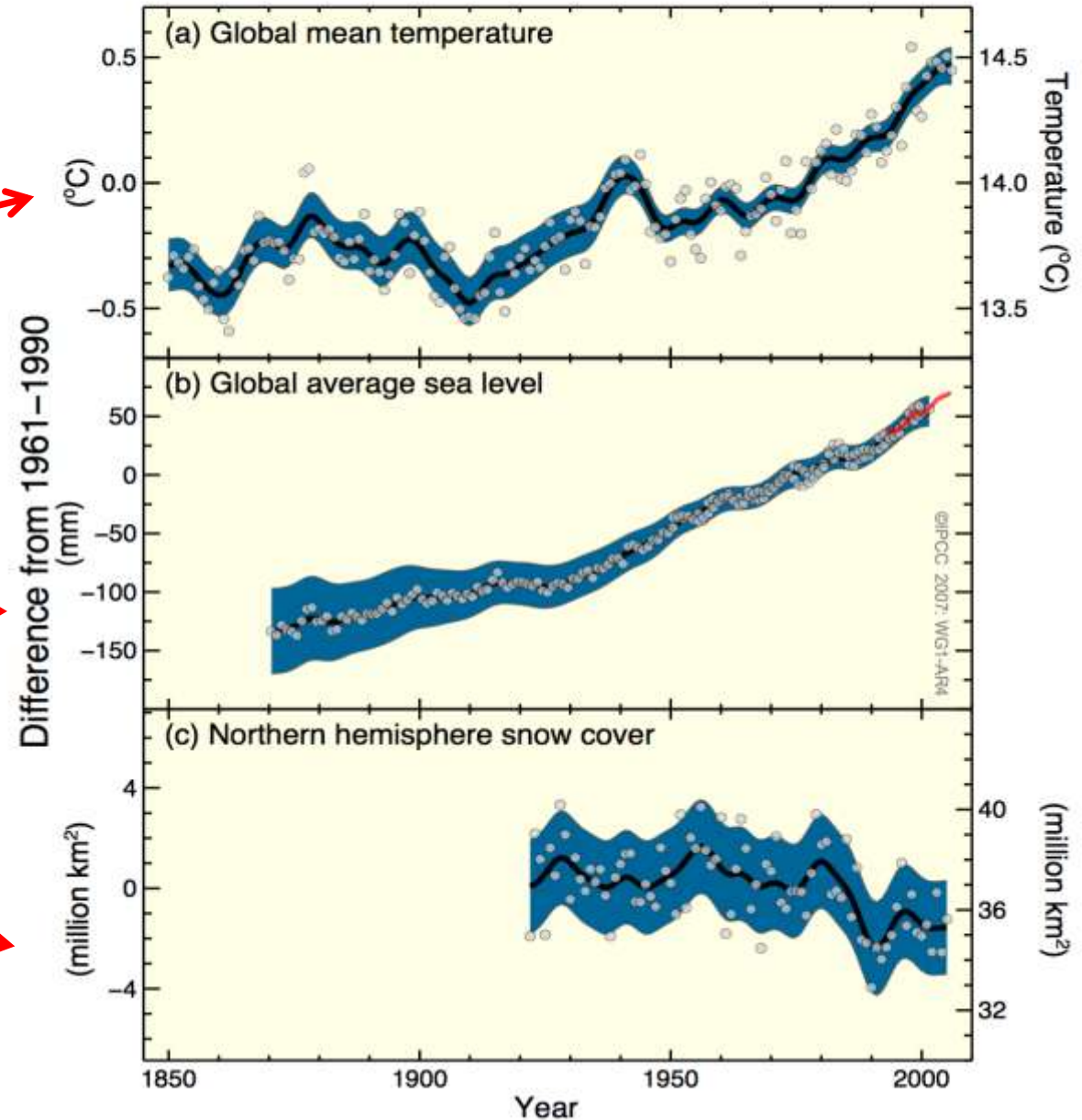
Warming is Unequivocal

Rising atmospheric temperature

Rising sea level

Reductions in North Hemisphere snow cover

Changes in Temperature, Sea Level and Northern Hemisphere Snow Cover



The health effects of climate change

Some expected impacts will be beneficial but most will be adverse. Expectations are mainly for **changes in frequency or severity of familiar health risks**

Health effects

- **Temperature-related illness and death**
- **Extreme weather- related health effects**
- Air pollution-related health effects
- Water and food-borne diseases
- **Vector-borne and rodent- borne diseases**
- Effects of food and water shortages
- Effects of population displacement



Based on Patz et al, 2000



WHO Climate and Health

WHO Executive Board Report 124.R5, 22 January 2009:

- **Objective 1. Advocacy and awareness raising.**

“... Improved awareness will help health-sector professionals to provide leadership in supporting rapid and comprehensive strategies for mitigation and adaptation that will both improve health and reduce vulnerability.”

Action 1.1 Development of tools, guidance, information and training packages to support awareness and advocacy campaigns to protect health from climate change at national and regional levels. This action will target different population groups, especially health professionals.

Action 1.2 Develop and run a global awareness-raising and advocacy campaign aiming to put health at the centre of the climate change mitigation and adaptation agenda at the international level.

- **Objective 4. Strengthen health systems to cope with the health threats posed by climate change, including emergencies related to extreme weather events and sea-level rise**

– *Action 4.4:* “In addition, the development of programmes for health systems that will contribute to reducing their own greenhouse gas emissions will be supported.”



Highlighting the potential for immediate, local and large health cobenefits

Policies that cut greenhouse gas emissions can also reduce:

The 1.2 annual deaths from urban air pollution, and the 1.5 million from indoor air pollution

The loss of 3.2 million lives, and 19 million years of healthy life, from physical inactivity

140,000 annual deaths from climate instability

The 1.3 million deaths and over 50 million injuries from road traffic accidents



4. Mitigation: leading by example

Healthy hospitals –healthy planet: How the health sector can reduce its climate footprint





HEALTHY HOSPITALS – HEALTHY PLANET

How the health sector can reduce
its climate footprint



A discussion draft paper published by the World Health Organization and Health Care Without Harm

Seven elements of a climate-friendly hospital

1. Energy efficiency – Reduce hospital energy consumption and costs through efficiency and conservation measures.
2. Green building design – Build hospitals that are responsive to local climate conditions and optimized for reduced energy and resource demands.
3. Alternative energy generation – Produce and/or consume clean, renewable energy onsite to ensure reliable and resilient operation
4. Transportation – Use alternative fuels for hospital vehicle fleets; encourage walking and cycling to the facility; promote staff, patient and community use of public transport; site health-care building to minimize the need for staff and patient transportation
5. Food – Provide sustainably grown local food for staff and patients
6. Waste – Reduce, re-use, recycle, compost; employ alternatives to waste incineration
7. Water – Conserve water; avoid bottled water when safe alternatives exist

Prescription for a Healthy Planet

- “we are calling on all world leaders to take a strong and visionary stand in the Copenhagen negotiations in December, as well as in the national and international policy debates that ensue, by following this simple and clear Prescription for a Healthy Planet.”
- www.climateandhealth.org



Opportunities for Action: health-care facility examples

- Energy efficiency – Reduce hospital energy consumption and costs through efficiency and conservation measures.
 - Brazil: 101 hospitals in Sao Paulo cut energy use by 25%
 - Mexico: Centro Medico Nacional La Raza education to turn off lights, computers
- Alternative energy generation – Produce and/or consume clean, renewable energy on site to ensure reliable and resilient operation
 - Liberia
 - Tanzania (shown – off grid electricity with solar panels)



- Green building design – Build hospitals that are responsive to local climate conditions and optimized for reduced energy and resource demands.
 - Italy: Meyer Children`s Hospital consumer 35% less energy for heating and cooling and 36% less electricity than standard
 - Singapore: Changi General Hospital saves US\$800 000 per year
 - Hong Kong: Grantham Hospital Natural Ventilation for TB control since 1957



- Transportation – Use alternative fuels for hospital vehicle fleets; encourage walking and cycling to the facility; promote staff, patient and community use of public transport; site health-care building to minimize the need for staff and patient transportation
 - UK Addenbrook hospital with interest-free bicycle loans and bus passes reduced cars on hospital campus by 16% and staff car use by 22%
 - Sweden: « eco-driving » reduced fuel use by 10% among ambulances and 50% less insurance claims



Food, waste, water

- Food – Provide sustainably grown local food for staff and patients
- Waste – Reduce, re-use, recycle, compost; employ alternatives to waste incineration
- Water – Conserve water; avoid bottled water when safe alternatives exist
 - India Bhopal Sambhavna Trust Clinic rainwater harvesting



More information:



WHO Public Health and Environment

<http://www.who.int/phe/en/>

Climate Change

<http://www.who.int/globalchange/climate/>