

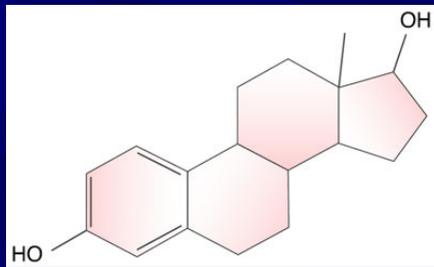


# Transforming Healthcare for the 21<sup>st</sup> Century

Gary Cohen  
President and Co-Founder  
Health Care Without Harm

# Revolution in Environmental Health Sciences

**Babies in the womb and young children are more vulnerable than adults.**



**Chemical exposure at critical windows of development can manifest health effects later in life.**

**Chemicals can interact in synergistic ways in our bodies.**

**Chemical exposures in incredibly small doses impact the hormonal system and disrupt normal development.**



# Body Burden Profile: Pollution in Newborns

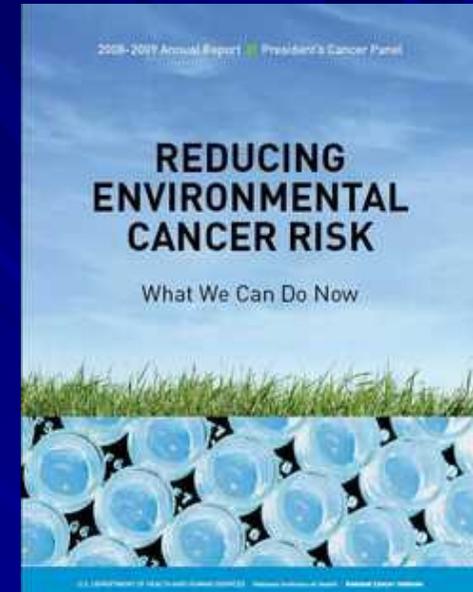
**A benchmark investigation of industrial chemicals, pollutants, and pesticides in human umbilical cord blood.**



**Though scientists once thought that the womb protected developing babies from pollution, a study of umbilical cord blood from newborns found an average of 200 industrial chemicals, pesticides and other pollutants in 10 newborns. Of 287 chemicals detected, 180 have been linked to cancer, 217 are neurotoxins and 208 are linked to birth defects.**

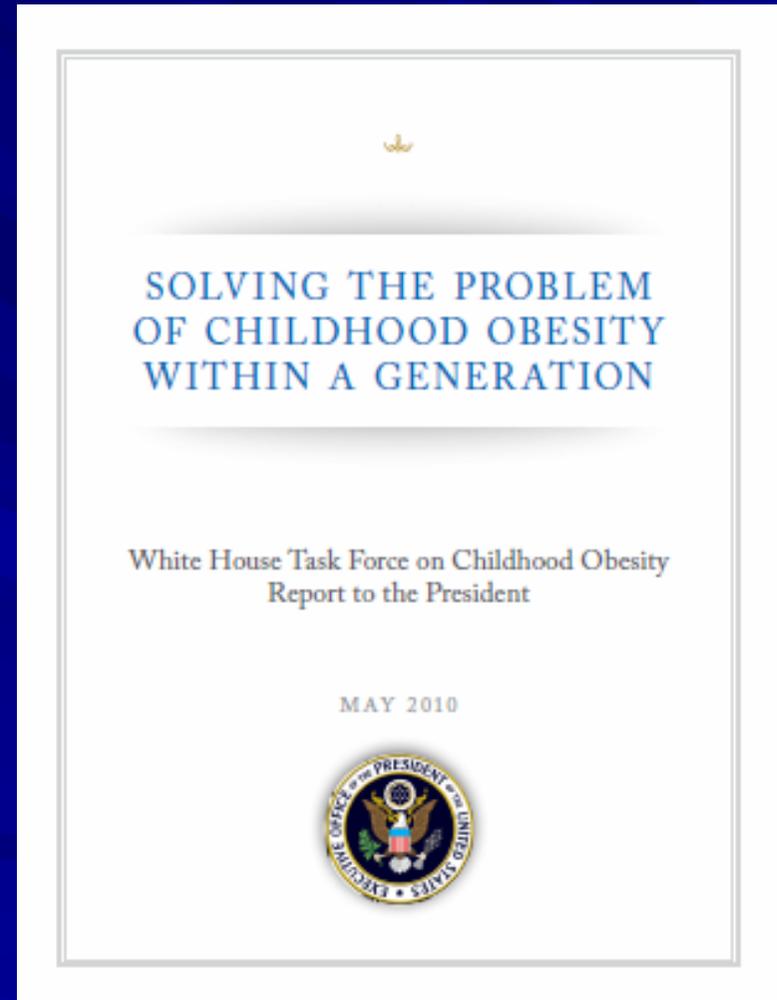
# President's Cancer Panel 2008-2009 Annual Report

**Environmental exposures that increase the National cancer burden do not represent a new front in the ongoing war against cancer. However the grievous harm from this group of carcinogens has not been addressed adequately by the National Cancer Program. The American people – even before they are born – are bombarded continually with myriad combinations of these dangerous exposures. The Panel urges you most strongly to use the power of your office to remove carcinogens and other toxins from our food, water and air that needlessly increase health care costs, cripple our Nation's productivity and devastate American lives.**



# President's Task Force on Childhood Obesity

- **Benchmarks of Success:** A stronger knowledge of chemical exposures that may be related to obesity and reduction of exposure for children
- **Recommendation:** Federal and State agencies should prioritize research into the effects of possibly obesogenic chemicals..





## 21st Century Chronic Diseases

**The lifetime risk of cancer is 1 in 2 for men and 1 in 3 for women. 1 in 12 and 1 in 11 respectively will develop invasive cancer before the age of 60.** (ACS 2005)

**The risk of breast cancer has tripled from more than 1 in 20 to 1 in 7 in the last forty years.** (ACS 2003)

**Non-Hodgkin's Lymphoma has nearly doubled since the 1970s.** (RPCI 2005)

**Endometriosis, linked to dioxin exposure, now affects 10-15% of the US female population.** (Holloway 1994, Suchy & Stepan 2004)



# 21st Century Chronic Diseases

**Asthma rates doubled between 1980 and 1995.**

(Mannino 2002)

**127 million Americans are overweight; 60 million are obese.** (AOA 2006)

**Between 1997 and 2004 diabetes incidence increase 45% among 18-44 year olds** (CDC 2005)



**“Climate change is the biggest global health threat of the 21<sup>st</sup> 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 and Human Health



**Weather Disasters**



**Infectious Disease**



**Allergies**



**Heat Stress**



**Red Tides**



**Asthma**



# Hurricane Katrina's Impact on Healthcare



Memorial Medical  
Center

St. Rita's Nursing Home



# Environmental Impacts of Healthcare Practices

**Dioxin & Incineration:** In 1995, medical waste incinerators were the largest source of dioxin and were responsible for 10% of mercury emissions.

**Pharmaceutical Waste:** At least 250 million pounds of pharmaceutical waste is generated annually from hospitals and long-term care centers.

**Indoor Air Quality:** Poor air quality has been identified as the most frequent cause of work-related asthma in healthcare workers.

**Energy:** Healthcare is the second most energy intensive sector in commercial buildings.



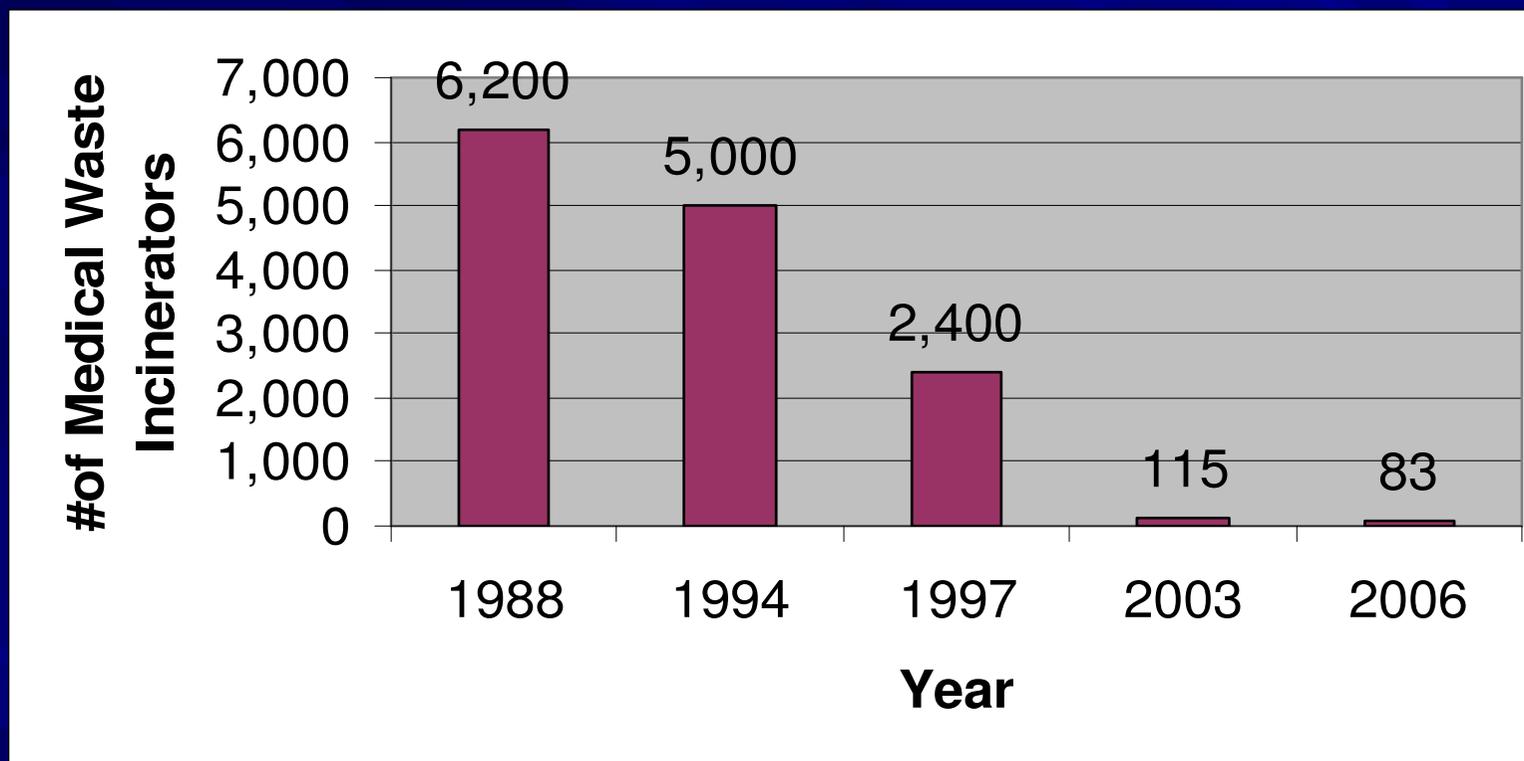


The Campaign for Environmentally  
Responsible Health Care



- Making the link between the environment and health
- Evolving the Hippocratic Oath
- Leveraging the purchasing power of health care
- Activating health messengers for broader societal transformation
- Implementing a disease prevention agenda

# Decline in Medical Waste Incinerators in the U.S.



SOURCES: **1988**: "Hospital Waste Combustion Study-Data Gathering Phase," USEPA, December 1998; **1994**: "Medical Waste Incinerators-Background Information for Proposed Standards and Guidelines: Industry Profile Report for New and Existing Facilities," USEPA, July 1994; **1997**: 40 CFR 60 in the Federal Register, Vol. 62, No. 178, September 15, 1997, page 48350; **2003**: "Status of Current HMIWI Efforts," presentation by Fred L. Porter, USEPA, at the Medical Waste Institute, June 2003; **2006**: USEPA medical waste incinerator inventory, February 17, 2006.

# Decline in Mercury Use in Healthcare



**5,000 U.S. health care facilities have pledged to go mercury-free; all major pharmacy chains stop selling mercury thermometers**

**29 states have passed laws restricting mercury-based products**

**European Union enacted ban in 2007.**

**Philippines and Argentina first developing countries to pass mercury-free legislation**

**HCWH and WHO in global partnership to eliminate mercury from healthcare**



# Market shift away from use of PVC Medical Devices

**2005** – Catholic Healthcare West (CHW) awards a five year \$70 million contract to B. Braun Medical Inc. for the supply of PVC/DEHP-free IV bags, solutions and tubing to the systems 40 hospitals in California, Arizona and Nevada.

**2006** - Hospira's new IV container is PVC/DEHP free and weighs 40-60% less than other flexible IV containers, resulting in significant waste reduction.

**2007** – Consorta, which buys supplies for 400 hospitals, awards contract to Hospira for PVC-free IV systems.





# IMAGINE...

**Cancer treatment centers built without materials linked to cancer**

**Pediatric clinics free of chemicals that trigger asthma**

**Hospitals with healthy food, fresh air, sunlight**

...

**265 hospital pilots**

**Basis for LEED for Healthcare**

**[www.gghc.org](http://www.gghc.org)**





# Healthy Food

- Antibiotic-free meat/poultry
- rBGH-free milk
- Organic and other certified foods
- Certified coffees
- Locally-sourcing food
- Fast-food free zone
- Farmers' markets
- Hospital gardens
- Compost & reduction of food waste
- Hospital food policy
- Vending machine use

## *Menu of Change*

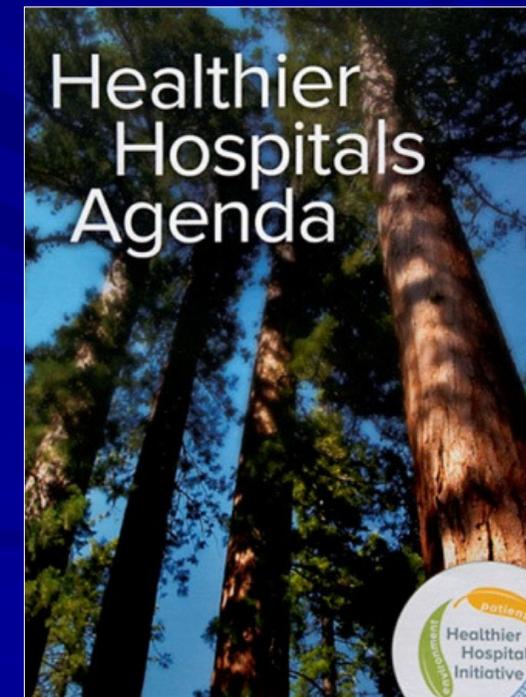
### Healthy Food in Health Care

A 2008 Survey of Healthy Food in Health Care Pledge Hospitals



# Healthier Hospitals Initiative

- Acceleration strategy at the intersection of sustainability, patient and worker safety
- Moving the \$130 billion market a unique and explicit goal
- 370 hospitals in original cohort
- Linking “Bending the Cost Curve” in Healthcare with sustainability and safety



# Environmental Purchasing Disclosure Questionnaire

- Standardized disclosure of “chemicals of concern”, energy, and waste across entire supply chain
- Creates an accountability framework for medical suppliers to advance an ethical supply chain
- Helps to align \$130 billion in healthcare purchasing power (e.g. the Wal-Mart effect)
- Allows for continuous improvement and adding new issues into the screen

Novation®

HealthTrust  
Purchasing Group

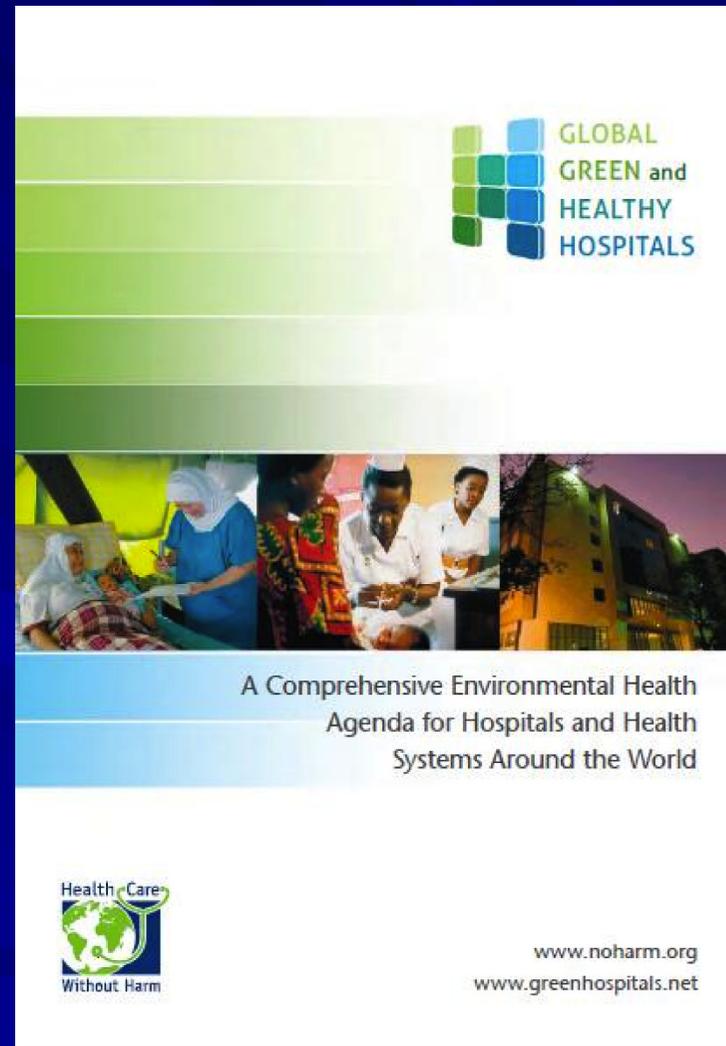
MedAssets

PREMIER

Amerinet®

# Global Green and Healthy Hospitals Agenda

- Creating a global learning community for sustainable healthcare
- Developing tools and case studies to accelerate innovation and adoption
- Positioning healthcare to lead the 21<sup>st</sup> century economy





# Right to Environmental Health and Access to Health Care

