WHAT IS HEALTH CARE FOR?

Gary Cohen
CLIMATE CHANGE AND HUMAN HEALTH

- Weather Disasters
- Allergies
- Infectious Disease
- Water Borne Diseases
- Heat Stress
- Asthma

Health care itself is a major contributor to the deterioration of environmental health conditions.
• By 2030, cancer cases will increase 45% and become the leading cause of death.
• 2/3 of adults and 1/3 of children are overweight or obese.
• 29 million people have diabetes.
• 1 in every 11 children has asthma. Black children are twice as likely to have it than white children.
• 60 million people (10 million children) have a learning disability.
• Heart disease causes 1 in 4 deaths and is the leading cause of death for women.
PER CAPITA HEALTH CARE COSTS

- Italy: $3,209
- Japan: $3,649
- United Kingdom: $3,289
- Australia: $3,997
- Sweden: $4,106
- France: $4,288
- Germany: $4,811
- Canada: $4,602
- Switzerland: $6,080
- United States: $8,745
- OECD Average: $3,484
HEALTH CARE’S ENVIRONMENTAL IMPACTS

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

• **Medical Waste:** In 1995 medical waste incineration was the largest source of dioxin emissions in the US, responsible for 10% of mercury air emissions

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

• **Toxic Chemicals:** Healthcare is one of the largest users of toxic chemicals in the US economy

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

• **Unhealthy Food:** hundreds of hospitals serve unhealthy food to their patients and employees
THE PROBLEM

Environmental factors are a key driver in human health outcomes.

Health care itself is a major contributor to the deterioration of environmental health conditions.

- Hospitals are major polluters and energy consumers
- Hospitals are significant users of toxic chemicals
- Hospitals serve food that contributes to diabetes and obesity
THE SOLUTION

Addressing environmental and social factors will scale improvements in health outcomes faster than refining treatment technologies and resources.

The health care sector has a moral obligation, and good business reasons, to be the leader in improving environmental health. If health care leveraged the full force of its business and political assets to this end, it could have a substantial and measurable global impact and redefine the way we think about and provide health.
OUR MISSION

Our mission is to transform health care worldwide so that it reduces its environmental footprint, becomes a community anchor for sustainability and a leader in the global movement for environmental health and justice.
HOW WE CREATE CHANGE

Research and Innovation
We identify and pilot opportunities for health care to implement innovative, economical, science-based solutions to environmental health problems.

Implementation and Capacity Building
We educate, build implementation tools, train health care professionals and scale-up solutions across our networks, the health sector and in the communities it serves.

Policy and Market Changes
We aggregate the influence and purchasing power of hospitals, health systems, health professionals and organizations to drive the marketplace toward sustainability and advocate for policies that will create worldwide change.
THE MERCURY CASE

Research and Innovation

- In the 1990’s, HCWH identified mercury waste (incineration and breakage of thermometers and blood pressure devices) as a significant source of mercury pollution and health risk to patients and health workers
- Conducted research to identify safer alternatives and business case for switching

Implementation and Capacity Building

- Began work with one hospital in Boston to switch out their mercury thermometers for safer alternatives
- Spread practice to other hospitals in Boston, then to other cities, then to large health care systems and then to pharmacies
- Led 5,000 U.S. hospitals to commit to phasing out mercury-based medical devices
- Documented 5,600 developing country hospitals committed to or already phasing out mercury

Policy and Market Changes

- Convinced all the major pharmacy chains in the U.S. to agree to stop selling mercury devices
- Won a ban on mercury devices in the European Union
- Won national phase outs on mercury devices in Argentina and the Philippines and health system phase outs in Brazil, South Africa, Mexico and India
- Partnered with the World Health Organization and in 2013 secured a global phase out of mercury medical devices by 2020 in the Minamata Treaty
### OUR FOCUS AREAS

<table>
<thead>
<tr>
<th>Focus Area</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>BUILDINGS</strong></td>
<td>Support green and healthy hospital design and construction</td>
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<tr>
<td><strong>CHEMICALS</strong></td>
<td>Substitute harmful chemicals with safer alternatives</td>
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<tr>
<td><strong>PHARMACEUTICALS</strong></td>
<td>Safely manage and dispose of pharmaceuticals</td>
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<tr>
<td><strong>ENERGY</strong></td>
<td>Implement energy efficiency and clean, renewable energy generation</td>
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<tr>
<td><strong>FOOD</strong></td>
<td>Purchase and serve sustainably grown, healthy food</td>
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<tr>
<td><strong>WASTE</strong></td>
<td>Reduce, treat, and safely dispose of health care waste</td>
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<td><strong>WATER</strong></td>
<td>Reduce hospital water consumption and supply potable water</td>
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<tr>
<td><strong>TRANSPORTATION</strong></td>
<td>Improve transportation strategies for patients and staff</td>
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</tbody>
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OUR NETWORK

NORTH AMERICA
3 organizations and 41 health systems representing the interest of 1400 Hospitals

LATIN AMERICA
344 Hospitals, 41 Health Centers, 20 Health Systems and 13 Organizations, representing the interest of 2625 Hospitals and Health Centers

MULTINATIONAL
3 organizations representing the interests of 900 hospitals

AFRICA
11 Hospitals, 3 Health Systems and 1 Organization, representing the interest of 141 Hospitals and 250 Health Centers

EUROPE
16 Hospitals, 16 Health Systems and 6 Organizations, representing the interest of 1380 Hospitals and 5029 Health Centers

ASIA
50 Hospitals, 6 Health Systems and 6 Organizations, representing the interest of 5066 Hospitals and 3100 Health Centers

AFRICA
11 Hospitals, 3 Health Systems and 1 Organization, representing the interest of 141 Hospitals and 250 Health Centers

PACIFIC
5 Hospitals, 11 Health Systems and 4 Organizations, representing the interest of 66 Hospitals and 497 Health Centers

GLOBAL
As of February 2016, HCWH has 635 members from 34 countries representing the interest of 20,702 Hospitals and Health Centers
OUR IMPACT

MERCURY
- 5,000 hospitals and 23 states
- 14 pharmacy chains
- 28 European countries
- 5,600 developing country hospitals
- Global Treaty

MEDICAL DEVICE REPROCESSING
- Becoming industry standard
- Grew market from $100 million to $500 million growing at 12% per year

MEDICAL INCINERATORS
- 4,500 in 1995; 83 in 2006
- Created demand for reprocessing

RENEWABLE ENERGY/CLIMATE CHANGE
- Hospitals reduced energy use by an aggregate 2.5% over three years, eliminating 73,600 metric tons in greenhouse gas emissions, the equivalent of removing 15,600 vehicles annually from US roads

FOOD
- $72 million redirected to local/sustainable foods
- Created market for antibiotic-free meat in hospitals

GREEN BUILDINGS
- Developed LEED certified standard for hospitals in US; Australia and China adopted as national guidelines
- Enlisted 300 hospital architectural projects onto the framework
- Impacted 40 million square feet of health care construction

HEALTH CARE CLIMATE COUNCIL
- Organized 16 leading US health systems representing $100 billion in revenue
- Council accelerates investment in renewable energy, scales the sector’s adoption of resiliency programs and advocates for policies that promote healthy communities

HEALTHIER FURNISHINGS
- Built $50 million worth of market demand for healthier furnishings in health care
OUR POWER

IN SIX MONTHS, WE COORDINATED 75 PARTICIPANTS REPRESENTING MORE THAN 9000 HOSPITALS AND HEALTH CENTERS IN 21 COUNTRIES, COMMITTED TO REDUCING THEIR CARBON FOOTPRINT AND LENDING THEIR VOICE TO POLICY EFFORTS STEMMING CLIMATE CHANGE.

2020 HEALTH CARE CLIMATE CHALLENGE

THEN

The Mercury Campaign
Beginning with one hospital in Boston we worked hospital by hospital until, over 17 years, we had enough critical mass to win a global treaty.

NOW
Increased data from hospitals.

- 2012: 350 hospitals
- 2013: 638 hospitals
- 2014: 970 hospitals

Leadership: 46 out of 50 states have data represented in the 2014 Milestone Report.
Local/Sustainable: 146 hospitals spent 18% of their food budget on local and sustainable foods.


Reprocessed SUDs: 379 hospitals have reported spending $174,479,925 on reprocessed single-use devices since 2010.
Community of Practice: Develop a sense of community with CEMC participants so they can easily identify common goals, share information on what it will take to achieve them, and then pursue those goals together.

Cross-sector Analytics Team: To increase collaborative, institutional procurement of healthier poultry products among CA PK-12 public school systems and hospitals, creating a platform for significant supply chain transformation.
HEALTHY FOOD IN HEALTH CARE: ANCHORS FOR RESILIENT COMMUNITIES

1) Aggregate demand for healthy food products
2) Increase community access to healthy foods
3) Create jobs for community residents
4) Increase markets for local producers

PRODUCTION
Farms, ranches, and fishing boats

PROCESSING
Processing plants, slaughter-houses, and dairies

AGGREGATION & DISTRIBUTION
Warehouses, trucks and other infrastructure

RETAIL/INSTITUTIONAL MARKETS

FOOD SERVICES
Mobile food vendors and commercial kitchens
GX is a purchasing cooperative focus on:

- Accelerating the adoption and use of safer, greener products by leading healthcare systems
- Catalyzing innovation in next generation product development
- Inspiring similar action in other sectors
OUR FOUNDING MEMBERS

• Dartmouth Hitchcock
• Dignity Health
• Gundersen Health Systems
• Partners HealthCare
• Practice Greenhealth
### HOW IT WORKS:
**IDENTIFY PRODUCT AND SERVICE CATEGORIES BASED ON CURRENT SPEND**

<table>
<thead>
<tr>
<th>FOOD AND FOOD SERVICE PRODUCTS</th>
<th>CHEMICAL OF CONCERN AND FLAME RETARDANT-FREE FURNISHINGS</th>
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<tbody>
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<td>Dietary Paper and Wares</td>
<td>Office Furnishings</td>
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<tr>
<td>Meat</td>
<td>Public and Waiting Area Furnishings</td>
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<td>Beverages</td>
<td>Examination Room Furniture</td>
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<tr>
<td>Dairy</td>
<td>Surgical Suite Furnishings</td>
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<td>Fresh Fruits</td>
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<td>Fresh Vegetables</td>
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<td>Oil and Shortening</td>
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<td>Grains and Legumes</td>
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<td>Canned Foods</td>
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<td>Ware Washing Products</td>
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<td>Enteral Nutrition</td>
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</tbody>
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*Preliminary List for Discussion Only*
# How It Works:
Identify Product and Service Categories Based on Current Spend

## Administrative and Office Products
- Green Office Products “Bundle” 400 Products
- 100% Recycled Paper Products
- Envelopes
- File Folders and Related Products
- Ink and Toner

## Medical Products and Devices
- Respiratory Therapy Products
- I. V. Fluids and Administration
- Bedside Procedure Trays
- Disposable Diapers
- Disposable Under-pads, Briefs and Diapers
- Table Papers and Covers
- Patient Drapes
- Sharps Collection
- Chest Drainage
- Urinary Products

Preliminary List for Discussion Only
## HOW IT WORKS:
IDENTIFY PRODUCT AND SERVICE CATEGORIES BASED ON CURRENT SPEND

### BUILDING MATERIALS
- Paint
- Carpet
- Wall Covering
- Flooring
- Cooling Towers
- HVAC Systems and Services
- Headwalls
- Lighting
- Roofing
- Water Treatments
- Ceiling Tiles
- Cabinetry
- Patient Hand Rail Systems
- Windows and Doors

### HOUSEKEEPING AND BUILDING MAINTENANCE PRODUCTS
- Cleaners
- Hand Cleaners
- Floor Finishes and Related Products
- Towels
- Tissues
- Batteries
- Bedside Bags
- Trash Can Liners
- Mattresses
- Textiles

*Preliminary List for Discussion Only*
HEALTHY PLANET

HEALTHY PEOPLE