



# Health Care Safety and Sustainability for the 21<sup>st</sup> Century



# The Case for Change

Hospitals are wonderful centers of healing.



At the same time, there are serious problems related to patient safety, worker/workplace safety, and environmental health.



# The Case for Change: Patient Safety

Institute of Medicine:

**Tens of thousands of Americans die each year from medical errors.**

Centers for Disease Control:

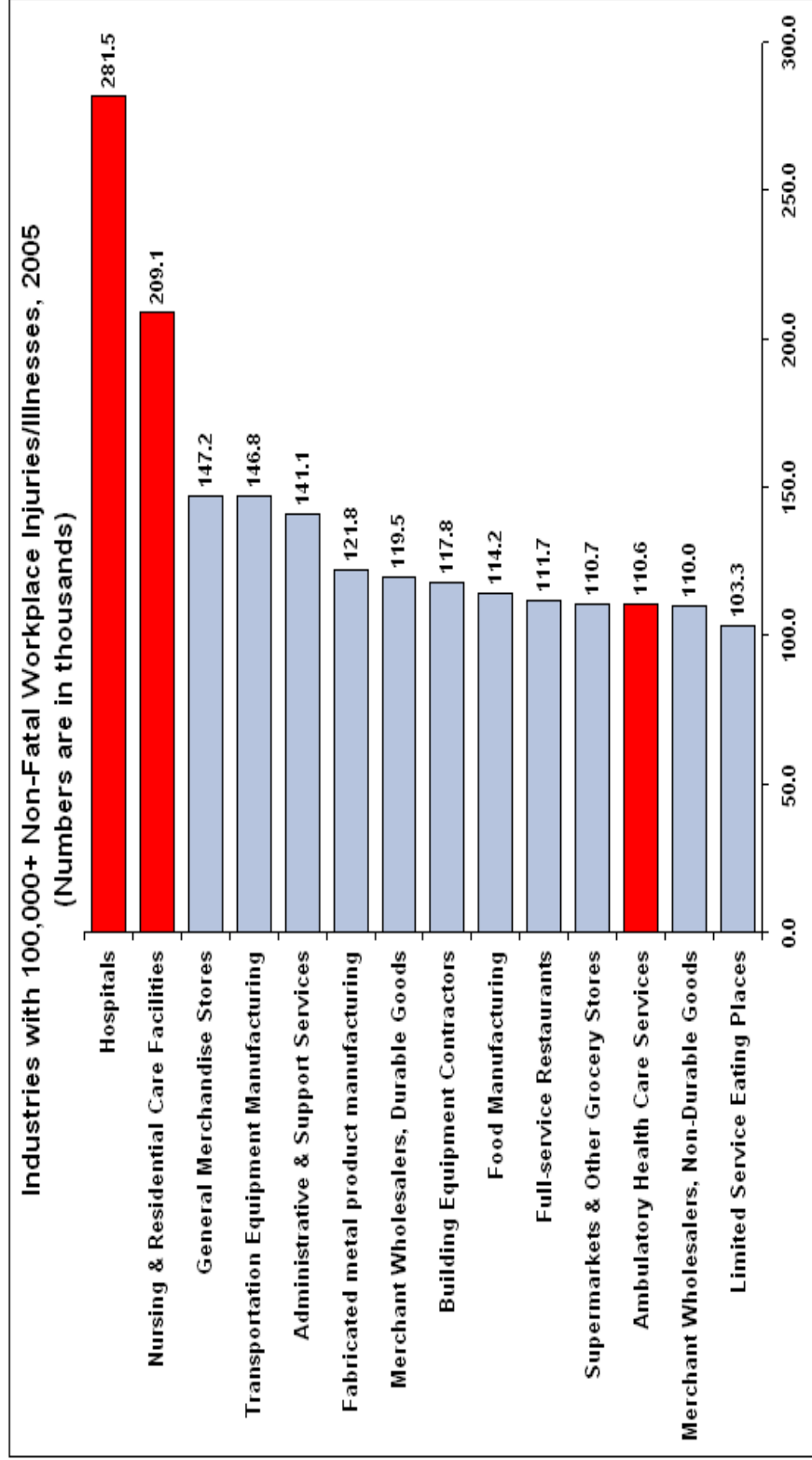
**Approximately 1.7 million patients develop infections in hospitals each year that contribute to 99,000 deaths.**

**Medicare will no longer reimburse hospitals for care related to certain medical errors and patient accidents.**





# The Case for Change: Worker Safety



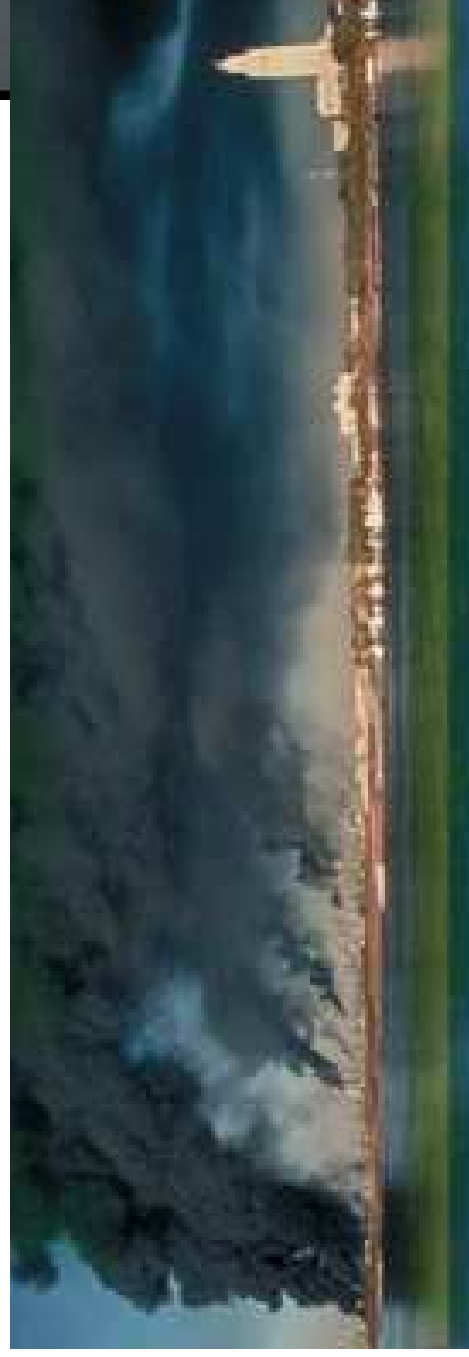
Bureau of Labor Statistics

# The Case for Change: Environmental Health and Safety



Unhealthy Environments - Established links between environmental exposures and health...

Large Eco-footprint - Health facilities are energy, water, waste and hazardous material intensive institutions



## The Case for Change:



### NURSES' HEALTH

A Survey on Health &  
Chemical Exposures

A first ever national survey of nurses' exposures to chemicals, pharmaceuticals and radiation on the job suggests there are links between serious health problems such as cancer, asthma, miscarriages and children's birth defects and the duration and intensity of these exposures.

The 2007 survey included 1,500 nurses from all 50 states.

**2007 Survey Partners: American Nurses Association, Environmental Working Group, Health Care Without Harm & Univ. of Maryland School of Nursing: [http://www.ewg.org/sites/nurse\\_survey/analysis/summary.php](http://www.ewg.org/sites/nurse_survey/analysis/summary.php)**

The Global Health and Safety Initiative:  
A Social Movement Providing  
Leadership to Transform Health Care



**The Synergy of Three Safeties:**

**Safe Patients = Good Healthcare**

**Safe Workers = Good Business**

**Safe Environment = Good for the World**



# A Collaboration is Growing

## Supporting Health Systems and Organizations (partial list):

- Allina Hospitals & Clinics
- **Ascension Health\***
- Bon Secours
- **Catholic Healthcare West\***
- Cleveland Clinic Foundation
- Geisinger Health System
- Health Alliance of Greater Cincinnati
- **Hospital Sisters Health System\***
- **Kaiser Permanente\***
- **MedStar\***
- **Partners Healthcare\***
- Presbyterian Healthcare System
- Providence Health
- **St. Joseph's Health System of Orange\***
- University of California, San Francisco
- University of Chicago Medical Center
- Dartmouth-Hitchcock Medical Center
- Metro Health
- Boulder Community Hospitals
- Lucile Packard Children's Hospital
- **Center for Health Design\***
- **Health Care Without Harm\***
- **Practice Greenhealth\***
- Centers for Disease Control and Prevention
- National Institute for Occupational Safety and Health
- Institute for Healthcare Improvement
- US Environmental Protection Agency
- US Department of Energy
- US Department of Defense
- American Institute of Architects
- American Nurses Association
- Joint Commission
- American Hospital Association
- American Medical Association
- Institutes of Medicine
- Green Guide for Health Care
- Group Purchasing Organizations:
  - Amerinet, Broadlane, Consorta, MedAssets, Novation, Premier

\* **GHSI Co-Founders**



# Global Health and Safety Initiative Tangible Benefits for Health Care ... and Society

## **Five Work Groups:**

**Built Environment**

**Healthy Purchasing**

**Sustainable Operations**

**Research Collaborative**

**Corporate Social Responsibility & Public Policy**

## **Approach:**

**Objectives-Baseline Measurement-Intervention-  
Outcomes-Evaluation**



# \* Initiative Benefits \* Safer and Sustainable Built Environment, Operations, Products and Supplies

- \* The new Global Health and Safety Initiative website ([www.globalhealthsafety.org](http://www.globalhealthsafety.org))
- \* An open-source, searchable database on innovative design recommendations (<http://ripple.healthdesign.org>)
- \* A database of sustainability programs cross-referenced with environmental, financial, regulatory, and other relevant criteria.
- \* Materials database and educational fact sheets
- \* Green Guide for Health Care
- \* Energy efficient, high performance hospitals toolkit

FACT SHEET: FORMALDEHYDE May 2008



### Formaldehyde Found in Building Materials

Formaldehyde is a colorless, flammable gas with a strong odor. It is released into the atmosphere from forest fires, composite wood products, and paper-based products such as paper composite countertops.

Most new construction (CSC 809.10.1) also releases formaldehyde. Formaldehyde is found in adhesives, coatings, glues, and fabrics.

Formaldehyde is found in many products, including:

- Adhesives and coatings used in the manufacturing of a number of glues, resins, and varnishes.
- Composite wood products, such as particleboard, medium-density fiberboard (MDF), and plywood.
- Paper-based products, such as paper composite countertops.
- Some types of insulation.
- Some types of paint.

Formaldehyde is manufactured from the oxidation of methanol, which is derived from fossil fuels. The heavy metal cobalt is used in the production of formaldehyde. Other products include formalin, a preservative of meat, including hot dogs.


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## THE RIPPLE DATABASE

COMPARE ACT



**LEARN**  
LEARN about evidence based design. Evidence-based design is designed to create safe and healthy environments for patients, staff, and the community. It is a process of identifying, assessing, and implementing design solutions that improve the health of the community that you serve.

**MORE ABOUT LEARN**  
In this track you will be able to learn what strategies and processes different designers, together with an informed client, make decisions based on the best information available from research and project evaluations. An evidence-based design approach would include improvements in the organization, clinical outcomes, performance, productivity, customer satisfaction, and cultural measures.

**PATIENT SAFETY**

**WORKER SAFETY**

**ENVIRONMENTAL SAFETY**

**COST EFFECTIVENESS**

**STAFF EFFECTIVENESS**

**QUALITY OF CARE**

The Institute of Medicine report, "To Err is Human" identifies the leading threats to patient safety in US hospitals. According to the Institute of Medicine, 70,000 people die each year in hospitals in the United States due to medical errors. Two million patients are injured in hospitals, of which 88,000 die. Adverse events in hospitals are related to both acute and latent conditions. Adverse events are unsafe acts (slips, lapses, mistakes, and violations) that are preventable and controlled by the people.

Funded by grants provided by  **NIH**  **Rockwell**.  
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## \* Initiative Benefit \* A Healthier Purchasing Strategy

Six major Group Purchasing Organizations

Amerinet  
Broadlane  
Consorta  
MedAssets  
Novation  
Premier

and the Healthcare Industry Group  
Purchasing Association (HIGPA) have  
endorsed the **GHSI Environmental  
Preferred Purchasing Guideline  
Statement**

Represents approximately 95% of acute  
care hospitals and \$100B in volume





## \* Initiative Benefit \* Environmental Impact Awareness and Leadership



Tools to measure health care's impact  
on the environment

Assistance in energy reduction, use of  
renewable energy and waste, water  
and toxic management

Showcase health systems' leadership  
in addressing important societal  
issues





## \* Initiative Benefit \* Research

**Safety and Sustainability - Outcomes focused agenda of what's important to health systems**

**Projects in development:**

- \* the business case for greener and safer hospital designs
- \* evidence-based design evaluation
- \* hospital emissions and improvement strategies
- \* effectiveness of greener cleaners
- \* alternatives to vinyl flooring





**\* Initiative Benefit \***  
**A Powerful Corporate Social  
Responsibility and Public Policy  
Agenda**

**Issues important to healthcare ...  
and society**

**–Safer chemicals policy, climate  
protection, patient and worker safety and  
the health of communities**



**Goal: Health systems as leaders in  
public health, safety and environmental  
stewardship**



# Help Support the Global Health and Safety Initiative

*Join Us*

*Participate*

*Collaborate*

*Publicize*

*Together, we can make a difference!*



# Global Health and Safety Initiative

For additional information visit:

[www.globalhealthsafety.org](http://www.globalhealthsafety.org)

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