Creating Healthy Buildings: How Does Building Design Minimize Harm to Air and Water Quality, Protect Natural Ecosystems and Make Business Sense?



Joel Kreisberg, DC, MA DrKreisberg@teleosis.org Executive Director of the Teleosis Institute www.teleosis.org

### **Green Health Care**

- Green Health Care is medicine that does no harm to people and the global environment.
- Green Health Care is more sustainable then high-tech hospitalbased medicine.
- Green Health Care can be more equitably distributed.

With Green Health Care we achieve sustainable levels of personal and Global health and vitality.

## **Primary Health Care**

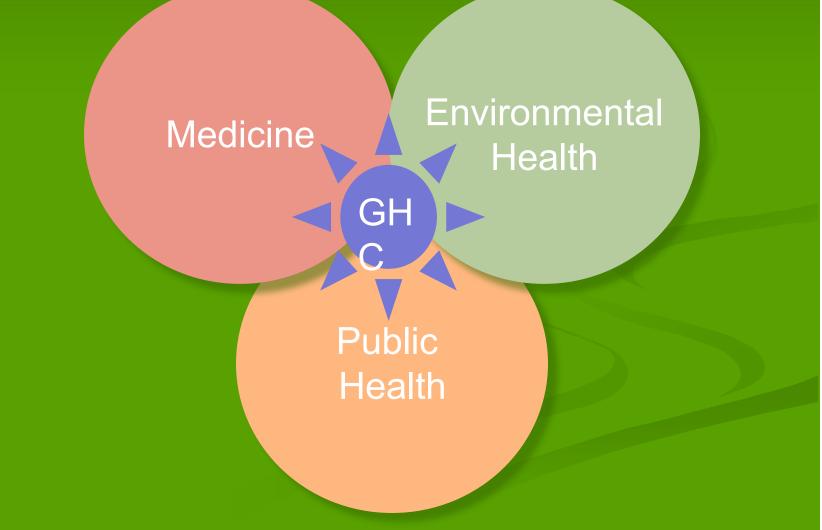
#### Participation

- Participation of the population in health decision making: moving towards and interaction between people and professionals.
- Equity
  - People have the right to health care and inequalities in health and health status are unacceptable.

#### Intersectorial collaboration

- Adopting an understanding of health as being something created in the social domain.
  - MacDonald, J (2005) Environments for Health

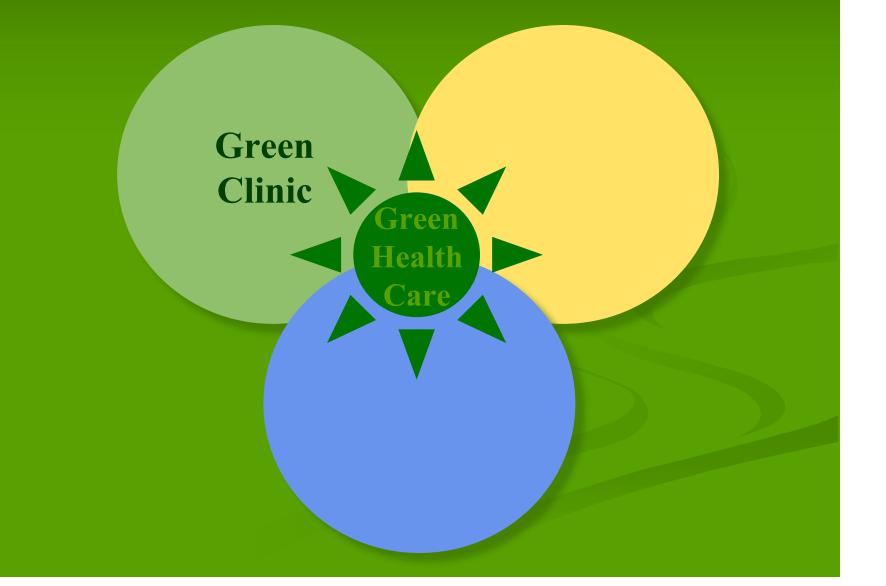
### Green Health Care Worldview



## Green Health Care



## A Green Medical Clinic



## **Principles of Green Buildings**

Protecting the immediate health of the building occupants

Protecting the health of the surrounding community

Protecting the health of the global community and natural resources

Green Guide for Health Care

### **Rationale for Green Health Facilities**

Green building design is more then just energy savings. It takes into consideration

- Financial gains
- Improved patient outcomes
- Better staff health
- Reduced turnover
- Reduced environmental impact
  - www.practicegreenhealth.org

## **Costs Savings**

- A cost benefit analysis of green buildings in CA determined that "a minimal upfront investment of 2% of construction costs typically yields lifecycle savings of over ten times the initial investment
- When the cost of environmental pollution is taken into account, the LEED certified building only costs 1% more then traditional building
   Packard Foundation

## Impact of the Built Environment on Occupants

### Staff

- Reduces sick-building syndrome
- Improves air quality- reducing employee absenteeism

### Patients

Decrease length of stay for occupants with sunlight rooms

## **Integrated Design**

Early close collaboration among architects, engineers, contractors, construction managers and operators and medical staff results in betterfunctioning green building at lower costs.

 Reducing the overall footprint of building resources

# **Environmentally Sensitive Operations**

Americans spend over %90 of their time indoors.

Thousands of chemicals and biological pollutants are found indoors. (EPA)

Use of nontoxic cleaning products

# Opportunities

- %68 or respondents agree that green hospitals "have a marketing or public relations advantage over comparable conventional hospitals."
- %56 agree that green hospitals "are more desirable to patients then standard facilities."
- %49 believe that going green "would give their hospital a competitive edge over conventional hospitals in their service area.
  - "Where Building Owners, End Users, and AEC Professionals Stand on Sustainability and Green Building," *Building Design* + *Construction*, Nov. 200&)

### Incentives

Foundation grants and state initiatives

- Providence Newberg Medical Center- Green design shortened the payback period by 14 months
- Pennsylvania Energy Development Authority
  - www.depweb.state.pa.us
- Pennsylvania Energy Harvest Grant Program
  - www.depweb.state.pa.us/energy
- Sustainable Development Fund Grant Program
  - Reinvestment Fund
  - www.trfund.com

### Sustainable Medicine



## A Green Clinic

Reduce the environmental impact of the office.

Conserve resources

Reduce waste

Monitor environmental performance

### **Green Clinic Assessment**

Our comprehensive audit covers:
Solid Waste Reduction & Recycling
Energy Conservation
Water Conservation
Pollution Prevention
Medical Technology & Services
Healthy People

### **Benefits of Green Health Care**

Reduced operating costs

- A safer and healthier clinical environment for clients and staff
- Stronger workplace culture based on values of prevention, wellness, and environmental responsibility
- Recognition as leaders in Green Health in your community



Find Out More

Teleosis Institute www.teleosis.org

Practice Green Health www.practicegreenhealth.org