



GLOBAL GREEN and
HEALTHY HOSPITALS

a project of the campaign for
environmentally responsible health care
WWW.NOHARM.ORG



What Everyone Ought to Know about Green Health Care

Acting Together for Environmental Health

TIMA Conference, March 7, 2015, Singapore

MERCI FERRER

Health Care Without Harm Asia



What is Health Care Without Harm?

HCWH's work sits at the intersection of two core principles—

--the right to health care and

--the right to a healthy environment

- We take the Hippocratic Oath: “First Do No Harm,” as our point of departure.
- We address the paradox inherent in health care systems that pollute and therefore undermine human health.
- We transcend that paradox by advocating for a healthier, more ecologically sustainable health care sector and positive alternatives to polluting technologies, products and practices.



Who Is Health Care Without Harm?

“Toward a Health Care Sector that Promotes Healthy Environments for All”

Health Care Without Harm is an international coalition of 443 organizations in 52 countries working to transform the health care sector so it is no longer a source of harm to people and the environment.

We work with health professionals, hospitals, health care systems, ministries of health and environment, and international organizations on issues ranging from chemical substitution, health care waste to climate change.

Offices in: USA, Europe, Argentina, and Philippines. Partners in South Africa, Tanzania, Brazil, Mexico, Nepal, Indonesia, and India. Members around the world.

Partners and Relationships



GLOBAL HEALTHCARE WASTE PROJECT

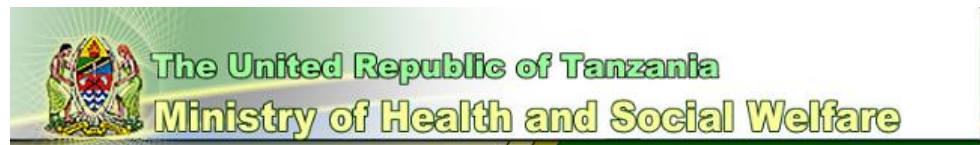


Improving lives worldwide



30 años, construyendo el conocimiento de la toxicología para una mejor calidad de vida

1979
2009



Envisioning a Green and Healthy Health Sector

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

The Health Sector is Going Green

Many hospitals and health systems around the world are taking steps to reduce their environmental footprint, contribute to public health and save money all at the same time.



Global Green and Healthy Hospitals | Agenda Goals



Leadership

Prioritize environmental health as a strategic imperative



Chemicals

Substitute harmful chemicals with safer alternatives



Waste

Reduce, treat and safely dispose of healthcare waste



Energy

Implement energy efficiency and clean, renewable energy generation.



Water

Reduce hospital water consumption and supply potable water



Transportation

Improve transportation strategies for patients and staff



Food

Purchase and serve sustainably grown, healthy food



Pharmaceuticals

Prescribe appropriately, safely manage and properly dispose of pharmaceuticals



Buildings

Support green and healthy hospital design and construction



Purchasing

Buy safer and more sustainable products and materials

North America

2 Organizations representing the interest of 1057 Hospitals and 13 major Health Systems

Europe

15 Hospitals, 14 Health Systems and 6 Organizations, representing the interest of 462 Hospitals and 43 Health Centers

Asia

28 Hospitals, 4 Health Systems and 6 Organizations, representing the interest of 2209 Hospitals and 3099 Health Centers

Latin America

336 Hospitals, 18 Health Systems and 13 Organizations, representing the interest of 615 Hospitals and 831 Health Centers

Africa

5 Hospitals, 1 Health System and 1 Organization, representing the interest of 61 Hospitals and 1035 Health Centers

Pacific

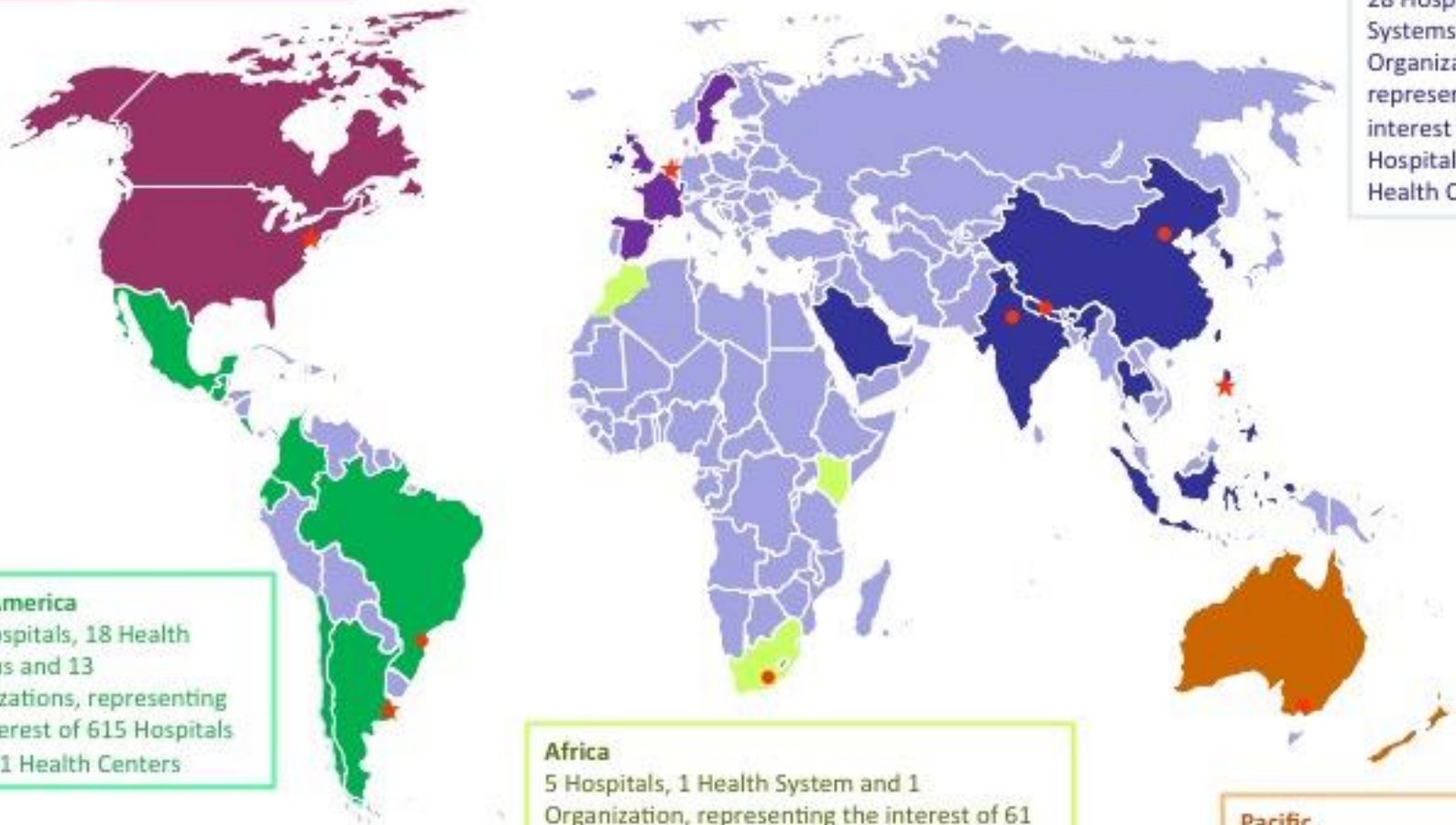
5 Hospitals, 4 Health Systems and 4 Organizations, representing the interest of 40 Hospitals and 302 Health Centers

Global

2 Organizations representing the interest of 900 Hospitals

Totals: By November 2014, GGHH has 467 members from 32 countries representing the interest of 5344 Hospitals and 5310 Health Centers

★ HCWH Regional Offices
● Strategic Partners



Asia

- Bahrain, Bhutan, China, India, Indonesia, Nepal, Philippines, Singapore, Saudi Arabia, South Korea, Thailand, Taiwan
- Membership breakdown - 28 Hospitals, 4 Health Systems, 6 Organizations representing the interest of 2209 Hospitals and 3099 Health Centers

Sambahvna Trust Clinic, Bhopal, India

- Green Building: solar power
- Food – Provide sustainably grown local food for staff and patients
- Water – Rainwater harvesting, water conservation





GREEN and CLEAN Hospitals: A Strategy for Reducing Global Warming

GREEN & CLEAN HOSPITAL

E:Energy คือ ลดการใช้พลังงาน โดยไม่ลดคุณภาพและความปลอดภัยของผู้รับบริการ ได้แก่

มาตรการประหยัดพลังงานไฟฟ้า

- มาตรการใช้ตู้เย็น
- มาตรการใช้เครื่องปรับอากาศ
- มาตรการใช้เครื่องคอมพิวเตอร์ ปิดหน้าจอระหว่างพักเที่ยง ถอดปลั๊กก่อนกลับบ้าน และทำคัตเอาท์(Cutout)ให้หน่วยงาน
- มาตรการใช้เครื่องทำน้ำอุ่น
- มาตรการใช้กระติกน้ำร้อน รวมทั้งกิจกรรมเจ้าหน้าที่ร่วมกัน ยกเลิกกระติกน้ำร้อนตามหน่วยงานต่างๆ หันมาใช้กระติกน้ำร้อน 1 ใบ ต่อ 1 อาคาร
- มาตรการใช้หลอดไฟ
- มาตรการใช้อุปกรณ์ไฟฟ้า เช่น สวิตซ์ ไฟกระดุก บัลลาลสต์ ให้ประหยัดพลังงาน
- มาตรการใช้ลิฟต์
- ให้รางวัลแก่เจ้าหน้าที่ที่มีหลักฐานใบเสร็จค่าไฟฟ้าลดลงต่อเนื่องอย่างน้อย 3 เดือนติดต่อกัน

มาตรการประหยัดพลังงานน้ำร้อนเชื้อเพลิง

GREEN & CLEAN HOSPITAL

E:Environment คือ การจัดการสิ่งแวดล้อมที่ช่วยและเอื้อต่อสุขภาพ

ปรับปรุงภูมิทัศน์ให้สวยงาม สะอาด เป็นสถานที่พักผ่อน ปี 2548-ปัจจุบัน พัฒนาสถานที่ทำงาน น่าอยู่ น่าทำงาน (Healthy Work Place) ควบคู่กัน ระดับทองปี 2549-2553 (5 ปีติดต่อกัน)

ผ่านมาตรฐาน 5 ส.ระดับทอง ปี 2553

โครงการเจ้าหน้าที่ปลูกต้นไม้ในพื้นที่ 37 ไร่ของโรงพยาบาล เรียกว่า “โครงการด้วยความร่วมมือระหว่าง “โรงพยาบาลปราสาทและห้วยจัดก” มอบต้นไม้ให้เด็กแรกคลอดก่อนกลับบ้าน เรียกว่า “ต้นไม้ต้นแรกของท

:Nutrition คือ การจัดการสิ่งแวดล้อมที่ช่วยและเอื้อต่อสุขภาพ

GREEN activities

Garbage

Restroom

Energy

Environment

Nutrition

CLEAN strategies

Communication for creating good understanding and awareness.

Leadership for starting a prototype project and resolving any problems.

Effectiveness enhancement to achieve the target.

Activity creation with strengthened cooperation.

Networking for all hospitals to share and learn among themselves.



Ministry of Health, Bhutan



Saint Paul de Chartres Health Care Ministry, Philippines

16-hospitals owned and administered
all over the country

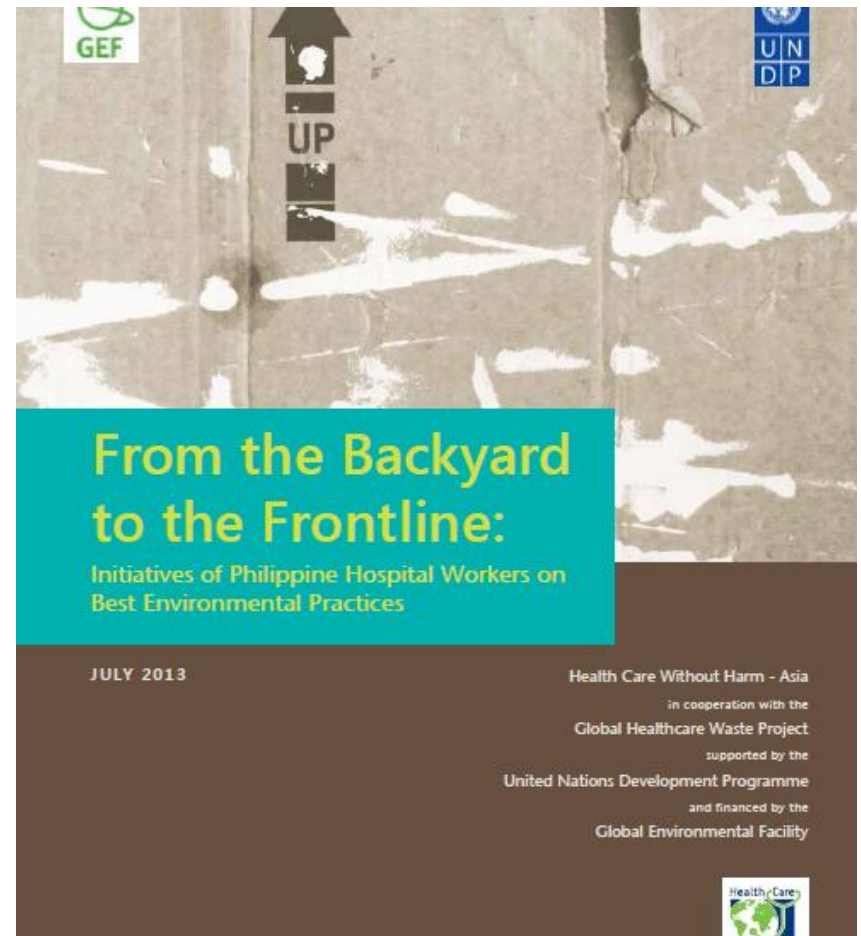
- Mercury Substitution
- Autoclave waste
- Vermiculture
- Food cultivation
- Trash to works of art



Philippine Hospital Good Practices

- Waste Management
- Chemicals Management/Mercury Phase-out
- Waste Water Treatment
- Safer Alternatives to Cleaning
- Hospital Biodigester

<http://web.undp.org/gef/document/From%20the%20Backyard%20to%20the%20Frontline.pdf>



Green Hospitals Initiative, Mongolia



Improving Health Care
Waste Management



Mercury Free Health Care
Initiative

National Cheng Kung University Hospital, Taiwan

Energy

- ✓ Lighting System Renovation
- ✓ Heat Pump Hot Water System
- ✓ Air Conditioning Renovation

Total annual savings:

- 5259 tons of CO₂
- \$625,000



Severance Hospital, Korea

Energy

- Expense reduction in 2011: 1,901,686,000 won (\$1,730,000)
- GHG emission reduction: 5,316 tons of CO₂



Bir Hospital, Nepal



HCWH/GGHH collaboration with Health Care Foundation Nepal

Bir Hospital, Kathmandu, Nepal



New technologies- biodigestion



Bir Hospital
2011



Recycling garden built on top of biodigester at Bir-the house in the background is for safe

| GGHH TOOLS AND ACTIVITIES

- Public events.
- Case Studies
- A suite of PR and media tools for members
- Technical tools (coming soon)
 - *Self- assessment check list
 - *Guidance documents for each goal
- Worldwide webinars with experts on goal area.
- An Awards Program that recognizes world leaders in sustainability in healthcare.
- GGHH Connect.



GGHH CONNECT- Mission and Purpose

*To provide a borderless environment for GGHH members to **meet, teach and learn from each other** to assist and help accelerate the achievement of their sustainability goals*



CREATED



POWERED



SUPPORTED



- My Homepage
- Contacts Center
- Messages
- My Documents
- Training and FAQs
- Collaboration Settings

Global Green and Healthy Hospitals

GGHH is a worldwide community of hospitals, healthcare systems and health organizations dedicated to reducing the ecological footprint of healthcare operations, while promoting environmental and public health in their communities.

[Visit the GGHH Website](#)



The GGHH Connect Help Desk is full of tutorials, guides, and people to show you how to use and take full advantage of GGHH Connect.

Visit the Help Desk today!

Activities

- All
- Connections
- Following
- My Communities
- Me

GGHH Admin in Energy About an hour ago.
Updated a *blog entry*.

Costa Rican Hospital Seeks to Become First Carbon Neutral Medical Center

GGHH Goal Communities

- Leadership
- Chemicals
- Waste
- Energy
- Water
- Transportation

GGHH CONNECT- Communities

Communities dedicated to each of the 10 GGHH Agenda goals with:

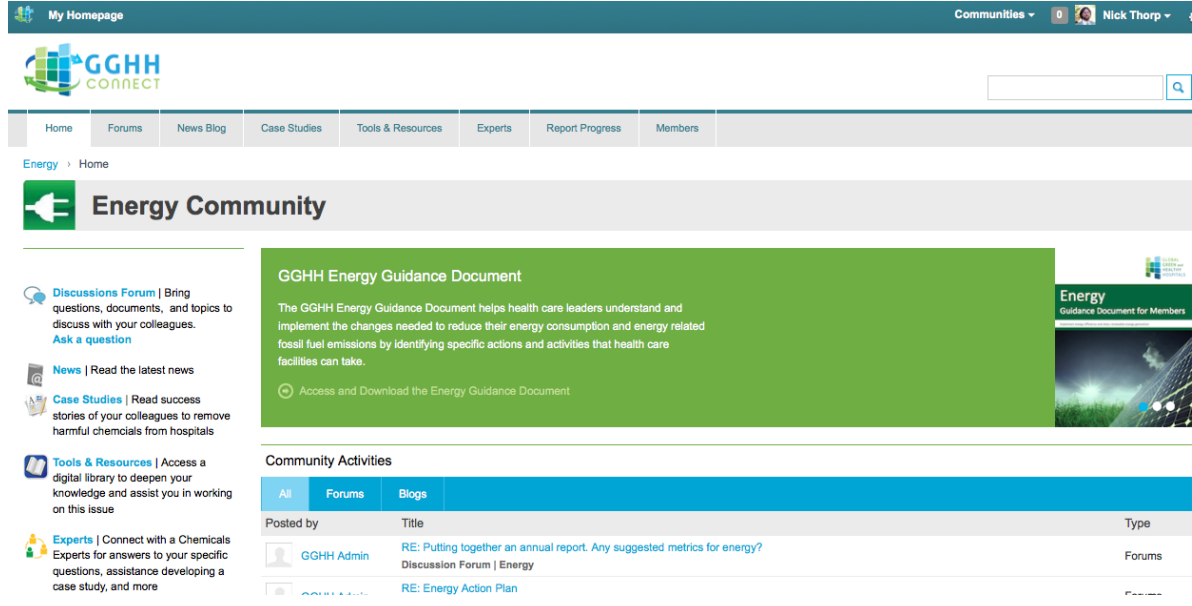
-Discussion Forums

-Global Teams of Experts

-Tools and Resources

-Case Studies

-Multi-lingual capability



The screenshot shows the GGHH Connect website interface. At the top, there is a navigation bar with 'My Homepage' and 'Communities' dropdown. Below the navigation is the GGHH Connect logo and a search bar. A main menu includes 'Home', 'Forums', 'News Blog', 'Case Studies', 'Tools & Resources', 'Experts', 'Report Progress', and 'Members'. The current page is the 'Energy Community' page, which features a sidebar with links to 'Discussions Forum', 'News', 'Case Studies', 'Tools & Resources', and 'Experts'. The main content area highlights the 'GGHH Energy Guidance Document' with a description and a link to 'Access and Download the Energy Guidance Document'. Below this is a 'Community Activities' section with a table of forum posts.

All	Forums	Blogs	
Posted by	Title		Type
	GGHH Admin	RE: Putting together an annual report. Any suggested metrics for energy?	Discussion Forum Energy
	GGHH Admin	RE: Energy Action Plan	Forums

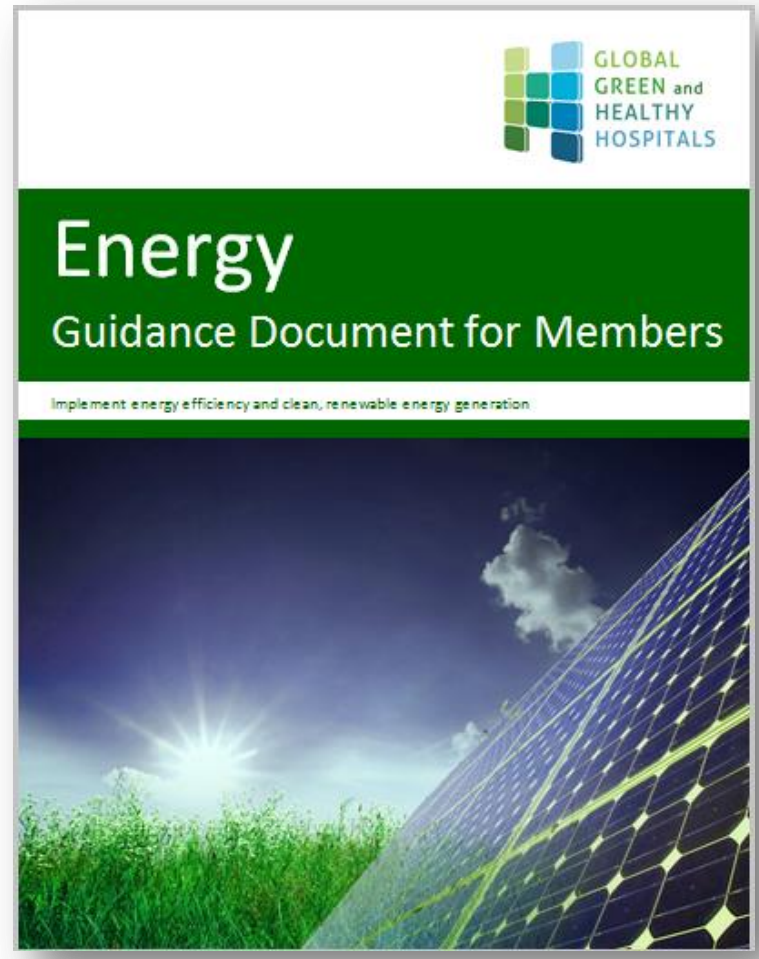
GGHH Connect- New Tools and Resources

Guidance Documents

- Overview of each goal
- Suggested **action items and projects**
- Strategies and tips** for implementation
- Additional resources for **learning/ research**

Self-Assessment Checklists

- Baseline picture** for new members
- Suggested **project focus areas**
- Track progress** year after year



GGHH CONNECT- Key Support Team- Social Stewards

Fiona Armstrong- Pacific
Climate and Health
Alliance

Luqman Yesufu- Africa
Groundwork

GGHH CONNECT- Key Support Team- Experts

Will Clark- Water
UK- Sussex NHS Trust

Marcelo Porto- Energy
fhi360- Brazil

Victoria Rice- Waste
University of Washington
Health Center

GGHH Connect- Experiences

Gathering feedback and experiences to engage leadership and guide project implementation

How do you dispose of lead aprons used in x-rays?



Dear GGHH friends.

I am looking for a standard for the disposal of radiation protective garments like lead aprons?

This kind of waste could leach into groundwater at dangerous levels if disposed of in landfills and would be a disaster if burned. The protective layer is made of lead and rubber and there is also two external PVC lining (Internal and external). Some hospitals and almost all the manufacturers and suppliers in Brazil use to say that they send it to landfill or incineration, but I think that they just don't know what to answer that question.

Lead Aprons are hazardous waste, but I don't know any formal reference on how to deal with this very common waste. A lead apron lasts maximum two years only. Hospitals usually have various in each RX room.

Could someone help with this?

0 (0 Votes)    [Flag](#)

 [Top](#)  [Edit](#)  [Delete](#)

RE: How to dispose of lead aprons?

 [Reply](#)  [Reply with Quote](#)  [Quick Reply](#)

5/14/14 10:45 AM as a reply to Vital Ribeiro.

RE: How to dispose of lead aprons?



María Della Rodolfa

Hi Vital

Good question, this is also an issue of concern for us.

Reply |  |  | Jun 18 2013 5:25 AM



Clare Topping

That's an interesting question and not one I had considered yet Vital. I am making enquiries here to see what we do - if nothing else then there should be some value in the lead.

Reply |  |  | Jun 18 2013 6:10 AM



Antonella Risso

Hi all, is it possible to return them to your suppliers? I'm thinking they could recycle them. It's a good question, I don't remember if any hospital here in Argentina disposes them as hazardous wastes. I'll ask and let you know if I get any information.

Reply |  |  | Jun 18 2013 11:36 AM



Antonella Risso

GGHH Connect- Pilot Experiences

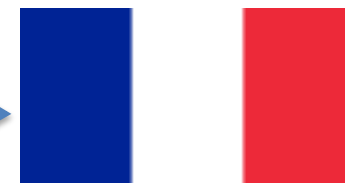
Creating community: health care sustainability professionals



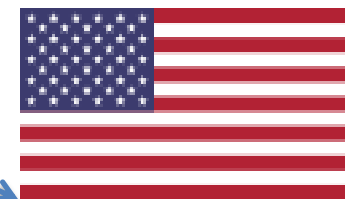
How do you communicate with staff?



What type of newsletters do you send out? Examples?



How do you put together annual sustainability reports? Examples?



GGHH Exchange





2020
HEALTHCARE
Climate Challenge





Objectives:

- Engage leading hospitals and health systems from across the globe to make major commitments to reducing their carbon reduction by 2020 and beyond.
- Measure collective health sector carbon footprint reduction.
- Encourage the development of increasingly climate resilient health systems around the world.
- Mobilize health care to play a leadership role to advocate for a healthy climate via economic, policy and communications strategies.



2020 HEALTHCARE Climate Challenge

Eligible Participants: Hospitals, and health systems from around the world.

Elements Include:

- A Health Care Climate Pledge
- Automatic GGHH Membership when the pledge is signed.
- Emissions target and reporting forms on GGHH Connect.
- Resiliency checklist
- Leadership checklist
- Climate leadership awards





INITIAL PARTICIPANTS

- Albert Einstein Hospital (Brazil)
- Gundersen Health System (USA)
- Kaiser Permanente (USA)*
- Partners Health Care (USA)*
- Sustainable Development Unit, National Health Service (England)
- Western Cape Health System (South Africa)*
- Yonsei University Health System (South Korea)

**To be confirmed*





Timetable

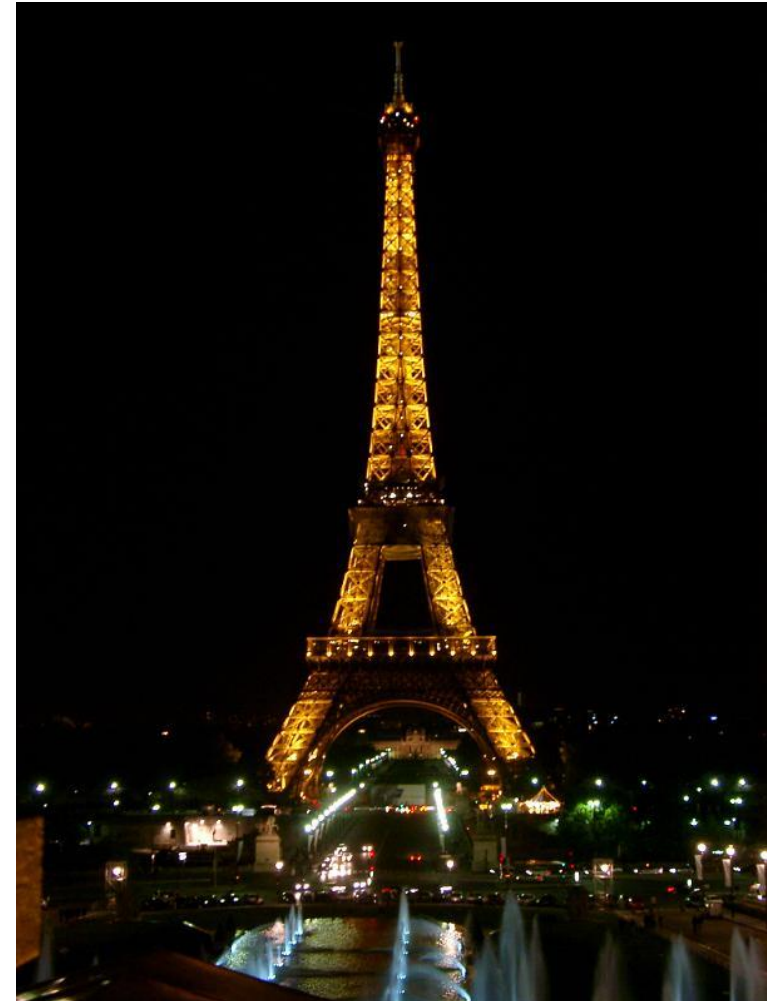
April. Challenge goes public. Pledge available for signing.

May. Participants begin to enter data on GGHH Connect. Establish 2020 Targets.

April-December. More participants join.

December. Event during the Paris Climate Conference announcing health care commitments and recognizing leading hospitals and health systems.

2016-2020. Hospitals and health care systems around the world become climate champions!





Merci Ferrer

Health Care Without Harm Asia

merci@no-harm.org

noharm-asia.org

greenhospitals.net

healthyenergyinitiative.org

