

# Global Green and Healthy Hospitals

ANNUAL REPORT 2017



# ABOUT GGHH

Imagine hospitals, health care facilities, health systems and health organizations from around the world working together for a healthier, more sustainable planet. . .This is Global Green and Healthy Hospitals.

GGHH and its members are dedicated to reducing their environmental footprint and promoting public and environmental health.

The network, launched in 2011, continues to grow rapidly. In early 2018 GGHH hit a major milestone, reaching its 1,000th institutional member. These members come from 51 countries, representing the interests of more than 32,000 hospitals and health centers from every inhabited continent.

GGHH develops tools and resources to help members reduce their environmental impact, measure their progress and collaborate with one another to foster large-scale change in the health care sector.

GGHH is a project of Health Care Without Harm.

## THE 10 GOALS



**Leadership**  
Prioritize Environmental Health



**Transportation**  
Improve Transportation Strategies for Patients and Staff



**Chemicals**  
Substitute Harmful Chemicals with Safer Alternatives



**Food**  
Purchase and Serve Sustainably Grown, Healthy Food



**Waste**  
Reduce, Treat and Safely Dispose of Health Care Waste



**Pharmaceuticals**  
Safely Manage and Dispose of Pharmaceuticals



**Energy**  
Implement Energy Efficiency and Clean, Renewable Energy Generation



**Buildings**  
Support Green and Healthy Hospital Design and Construction



**Water**  
Reduce Hospital Water Consumption and Supply Potable Water



**Purchasing**  
Buy Safer and More Sustainable Products and Materials

# TABLE OF CONTENTS

Reflections .....	2
Measuring Progress: GGHH Targets and Achievements .....	3
Network Breadth	
Members .....	4
2017 Highlights .....	6
Large-Scale Change	
Climate .....	8
Sustainable Procurement in the Health Sector .....	11
National and System Adoption .....	12
GGHH Regional Spotlights .....	14
Network Depth: Engagement .....	18
Case Studies .....	20
Green Health Challenges .....	22
Health Care Waste Management: Sustainability in Africa .....	23
Finances .....	24

## GGHH WORLDWIDE STAFF 2017

### AFRICA

*South Africa* | Luqman Yesufu

### ASIA AND PACIFIC

*China* | Ang Zhao, Jiang Chao

*India* | Bhargav Krishna, Shriram Manogaran

*Nepal* | Mahesh Nakarmi, Saraswoti Thakuri,

Urukshya Dongol, Shrawasti Karmacharya, Prerana Dangol

*Philippines* | Ramon San Pascual, Joyce Lanuza,

Faye Ferrer, Moresa Tolibas, Ma. Paz Oliva

*Australia* | Fiona Armstrong, Carol Behne, Grace Wong

### EUROPE

*Belgium* | Anja Leetz, Grazia Cioci, Aidan Long, Tim Eden

### LATIN AMERICA

*Argentina* | Verónica Odriozola, Carolina

Gil Posse, Maria Della Rodolfa, Antonella Risso

*Brazil* | Vital Ribeiro, Isabel Santos

*Costa Rica* | Alejandra Fernandez

### UNITED STATES

Janet Howard, Cecilia DeLoach Lynn and the staff of Practice Greenhealth

### GLOBAL SECRETARIAT

*United States* | Josh Karliner, Scott

Slotterback, Susan Wilburn, Nick Thorp

*Belgium* | Alejandra Livschitz

*Argentina* | Mariano De Donatis, Sonia Fakiel

*United Kingdom* | Ruth Stringer

# REFLECTIONS

As GGHH moves into 2018, we are extremely pleased to report that the network is not only thriving, but has reached several important milestones:

- We have surpassed 1,000 institutional members.
- Members represent the interests of more than 32,000 hospitals and health centers.
- They are in 51 countries across the globe.

On top of that, in 2017 we established a five-year collaboration with the China National Health Development Research Center to help green the country's health care sector. We also helped launch the Health and Environment Leadership Platform, a coalition of 25 health care organizations that will lead the development of GGHH in India.

Members are also increasingly active and engaged. By the end of 2017 members had:

- Committed to more than 16 million metric tons of greenhouse gas emission reductions.
- Contributed more than 165 case studies.
- Joined forces to call on the health sector around the world to take action on climate change.

In the past year GGHH also launched the Green Health Challenges on waste and energy—initiatives designed to build even more collective action among our membership.

Meanwhile, we have been busy forging partnerships with some major international institutions.

Our collaboration with the World Bank yielded a groundbreaking report on climate-smart health care that has the potential to embed a sustainability agenda in multiple international health development aid agencies.

Our work with UNDP on sustainable purchasing in health care also continues to evolve. In 2017 we laid the groundwork for a four-year, ten-country project supported by the Swedish International Development Agency. The project begins in early 2018.

None of these achievements would have been possible without the dedication and hard work of dozens of GGHH staff and volunteers around the world. They and our 1,000 members can hold their heads high and be proud to be part of GGHH.

We are excited about 2018 and the coming years. Our top priorities are to decarbonize the health care sector and to transform the global health care supply chain. Our plans are ambitious. Yet, achieving these goals is imperative to help protect the health of the world's people and the earth's ecosystems.

As GGHH continues to grow in breadth and depth we are not only dreaming big, but are increasingly confident that we can achieve the change we want to see in the world.



## **Josh Karliner**

International Director, Program and Strategy  
Health Care Without Harm

# MEASURING PROGRESS

## GGHH TARGETS AND ACHIEVEMENTS

The continued expansion of Global Green and Healthy Hospitals around the world into new regions, countries, and types of health care facilities signals the continued progression of environmentally sustainable health care into the mainstream.

Among the GGHH member hospitals and health centers are thousands of people dedicated to reducing the environmental footprint of the health sector and protecting public health.

GGHH provides a suite of resources to support their efforts while also creating a connected network where successful strategies and projects can be shared across borders.

The success of one member contributes to the success of the collective network and, in turn, the advancement of environmentally sustainable health care around the globe.

**In 2017, GGHH membership in Africa grew to 80 institutions representing over 1,500 hospitals and health centers in 8 countries**



# NETWORK BREADTH

## MEMBERS

In 2017, GGHH membership reached and surpassed milestones in institutional membership, number of hospitals and health centers represented by members, and the number of countries where members are located.

By early 2018 GGHH reached 1,000 institutional members, close to a 30 percent increase in just one year. Every region of the world saw expansion in membership with notable growth in India, Mexico, and several countries in Africa. GGHH now has members in 51 countries.

As membership grew so did the number of hospitals and health centers represented by GGHH members, which also increased by 30 percent in 2017.

### 2017 OUTCOMES

#### TARGET

Institutions representing the interests of 25,000 hospitals and health centers.

#### ACHIEVEMENT

Institutions representing the interests of over 32,000 hospitals and health centers.

### 2018 TARGET

Institutions representing the interests of 40,000 hospitals and health centers.

## GGHH HAS 1,000 MEMBERS FROM 51 COUNTRIES

#### U.S. & Canada

Practice Greenhealth, GGHH's implementation arm in the U.S. with members representing 1,147 hospitals, is an organizational member, along with 9 health systems and medical centers.

In Canada, GGHH members include 1 hospital, 5 health systems and 2 organizations representing the interests of 1,082 hospitals and health centers.

#### Europe

23 hospitals and health care facilities, 19 health systems and 12 organizations, representing the interests of 7,233 hospitals and health centers.

#### Global

1 health system and 4 organizations representing the interests of 4,900 hospitals and health centers.

#### Latin America

602 hospitals and health care facilities, 39 health systems and 15 organizations, representing the interests of 1,813 hospitals and health centers.

#### Africa

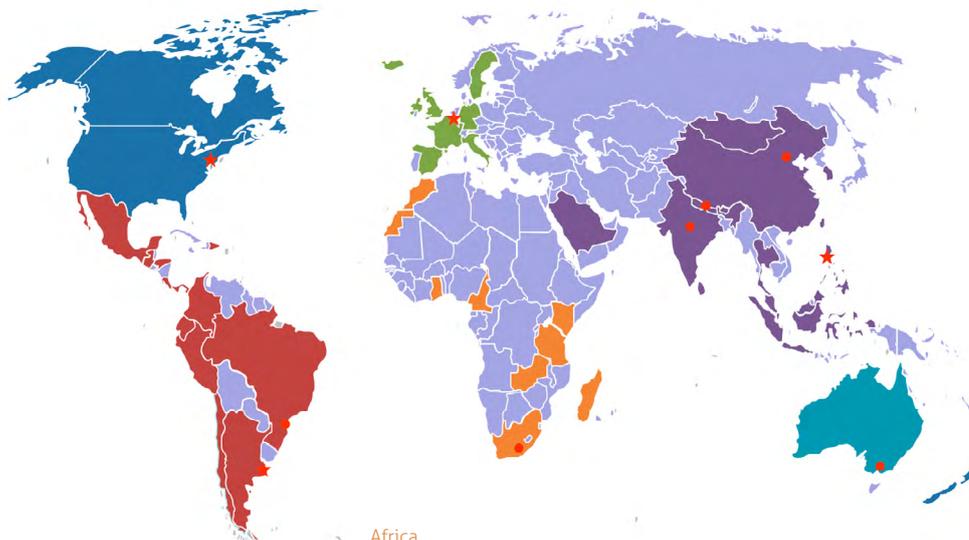
72 hospitals and health care facilities, 6 health systems and 2 organizations, representing the interests of 1,587 hospitals and health centers.

#### Asia

110 hospitals and health care facilities, 10 health systems and 27 organizations representing the interests of 13,568 hospitals and health centers.

#### Pacific

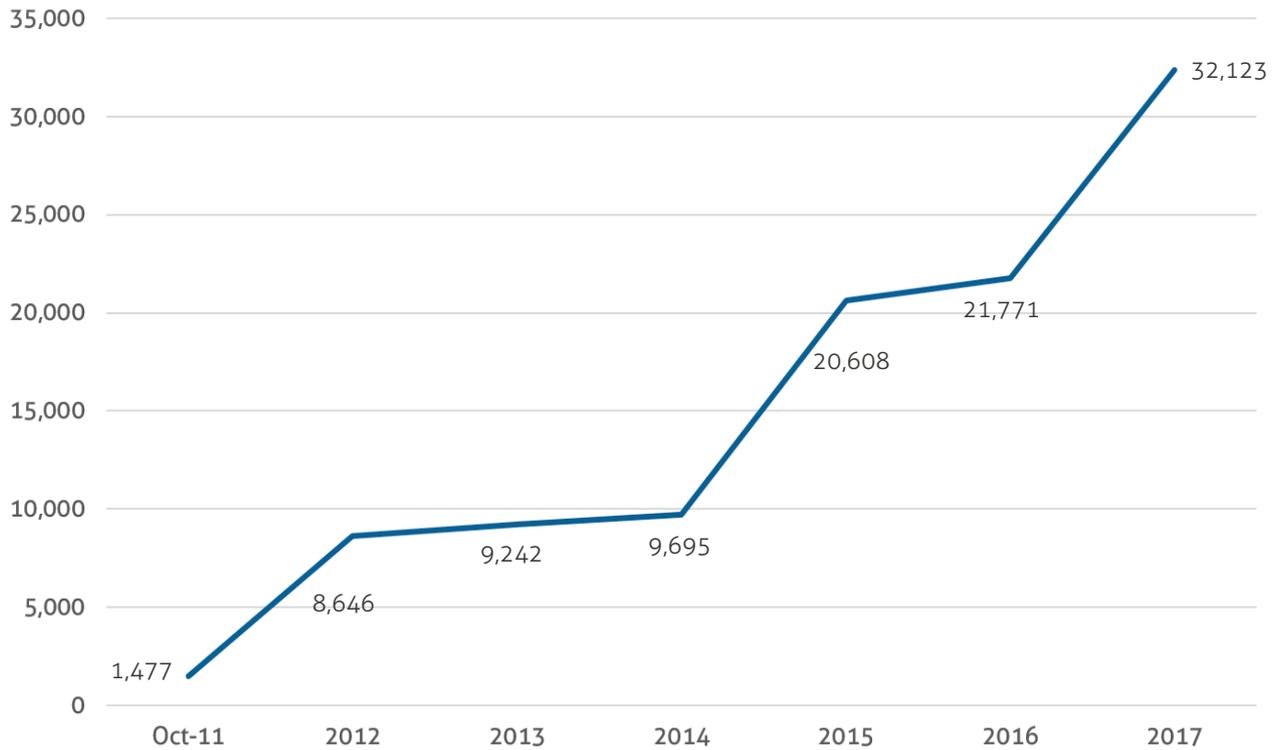
7 hospitals and health care facilities, 25 health systems and 8 organizations, representing the interests of 793 hospitals and health centers.



★ HCWH Regional Offices  
● Strategic Partners

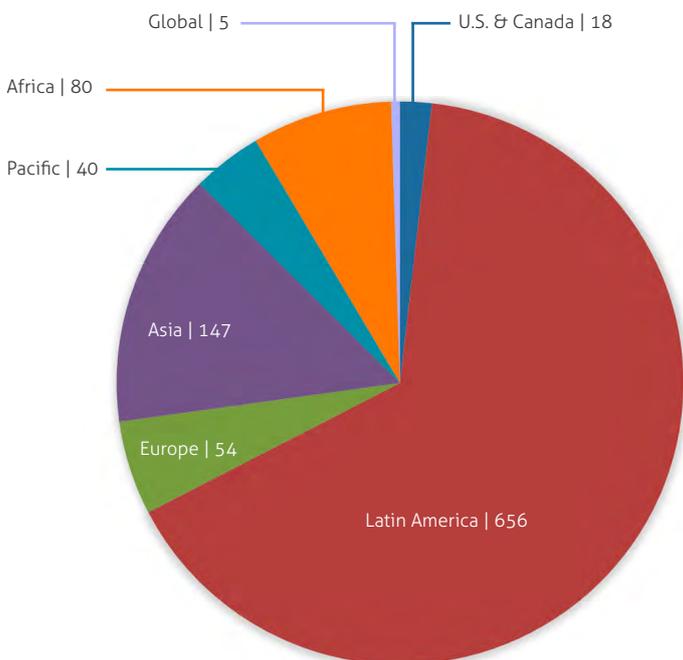
BY EARLY 2018, GGHH HAD 1,000 MEMBERS FROM 51 COUNTRIES REPRESENTING THE INTERESTS OF 32,123 HOSPITALS AND HEALTH CENTERS

## A NETWORK OF NETWORKS

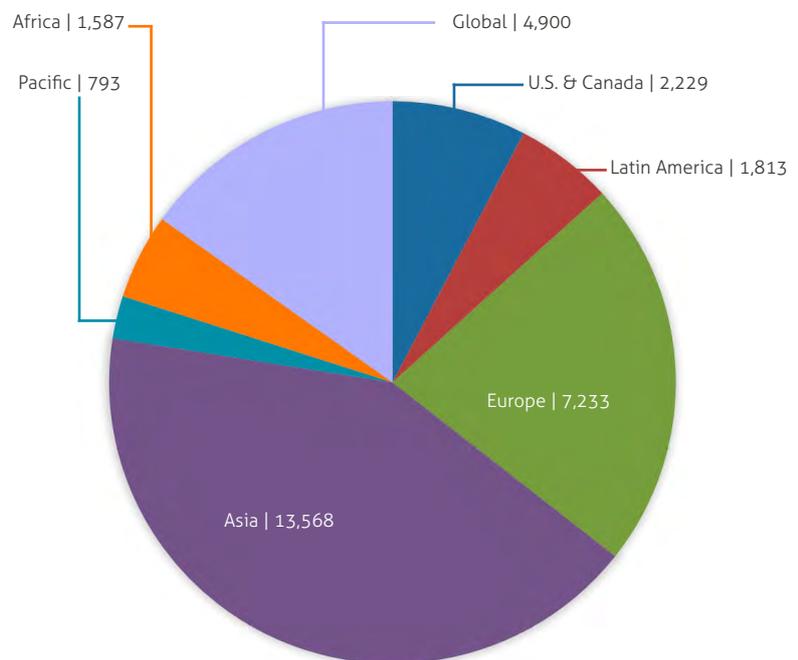


— Hospitals and Health Centers represented by GGHH members around the world, per year

### MEMBER DISTRIBUTION BY REGION



### HOSPITALS AND HEALTH CENTERS REPRESENTED BY REGION



# NETWORK BREADTH

## 2017 HIGHLIGHTS

### INDIA

HCWH and our partners in India co-founded and launched the Health and Environment Leadership Platform (HELP), which will engage health systems in India to address air pollution and other environmental health issues.

HELP is a coalition of leading 25 health organizations, composed of a core group of institutions (public and private) that together represent the interests of more than 5,600 hospitals and health systems across the country.

HELP is designed to become the GGHH Secretariat in India, and to implement the GGHH Agenda in the country's diverse health systems.

### LATIN AMERICA

In 2017, Salud sin Daño (HCWH Latin America) participated in a forum on climate change and health organized by the State Center for Epidemiological Surveillance and Disease Control (CEVECE) of Mexico, a GGHH member.

During the event, the Ministry of Health of the State of México announced that in the year to come, 60 hospitals and more than 100 health centers would join GGHH and work to implement sustainable health care in all the facilities.



GGHH and India Health and Environment Leadership Platform member Huma Lung Foundation is monitoring air pollution on its hospital roof and educating the public

The

# IMPACT

## of the 2020 Health Care Climate Challenge

By the year 2020, Challenge participants are committed to reducing their cumulative greenhouse gas emissions

**16 MILLION METRIC TONS OF CO<sub>2</sub>e**

### This is equivalent to



A year of carbon emissions from **4 COAL FIRED POWER PLANTS**



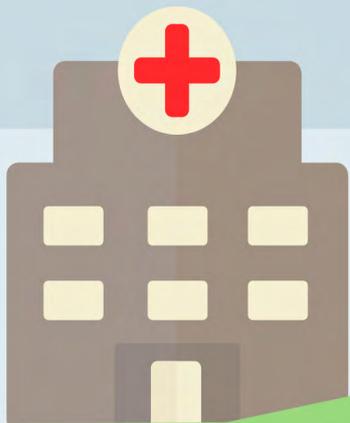
Emissions reduction from installing and running **4 THOUSAND WIND TURBINES** for a year



**1.7 MILLION** (U.S.) homes' energy use for one year



**SAVING \$1.7 BILLION (USD)** in health costs related to air pollution (\*)



2020 Challenge participants also report saving

**US\$381 MILLION**

through energy efficiency and renewable energy generation.

Greenhouse gas equivalents calculated using the U.S. EPA Greenhouse Gas Equivalencies Calculator:  
<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

(\*) Approximation based on the operation of four coal-fired power plants for one year. Sources: Epstein et. al. (2011), <http://doi.org/10.1111/j.1749-6632.2010.05890.x>; US EPA (2017), eGRID year 2014 data, <http://bit.ly/2EyA1IP>; US EPA (2018), Coal-fired power plant emissions for one year, <http://bit.ly/2BLQbMV>.

**2020**  
**HEALTHCARE**  
Climate Challenge

Through its actions and voice, health care can play a leadership role in advocating for a global response to climate change. GGHH is mobilizing its network of members to address climate change in their facilities and communities, while also forming a powerful collective to promote policies and change to ensure a healthy planet for the future.

### 2020 HEALTH CARE CLIMATE CHALLENGE

In 2017, the 2020 Health Care Climate Challenge grew to include 156 participants representing the interests of over 14,000 hospitals and health centers in 23 countries. Close to 50% of the hospitals and health centers represented by the GGHH member network are committed to addressing climate change at their institutions through the 2020 Challenge.

#### 2017 highlights

- 93% of hospitals and health centers represented by participating institutions are reporting.

Collectively, participants:

- Target a reduction of 16 million metric tons per year of CO<sub>2</sub>e by 2020.
- Have reduced emissions by 3,517,000 metric tons of CO<sub>2</sub>e.
- Are producing over 173,918,000 kWh of renewable energy, saving over \$381,246,000 USD.

### CLIMATE CHAMPION AWARDS

For the third year, GGHH recognized participants in the 2020 Health Care Climate Challenge with awards for their leadership in implementing and advocating for climate-smart health care.



Presenting the Health Care Call to Action on Climate Change to WHO Director-General Tedros and several Pacific Island health ministers at COP23

Hospitals, health systems and health organizations from around the globe received awards in a series of categories related to climate mitigation, resilience and leadership.

## WORLD BANK CLIMATE-SMART HEALTHCARE REPORT

The World Bank released a report in May 2017 establishing a new framework for health systems in developing countries to become leaders in addressing climate change. The report is a joint production with Health Care Without Harm.

In its title, the report coins the term Climate-Smart Healthcare, an approach that sets forth both low-carbon and resilience strategies.

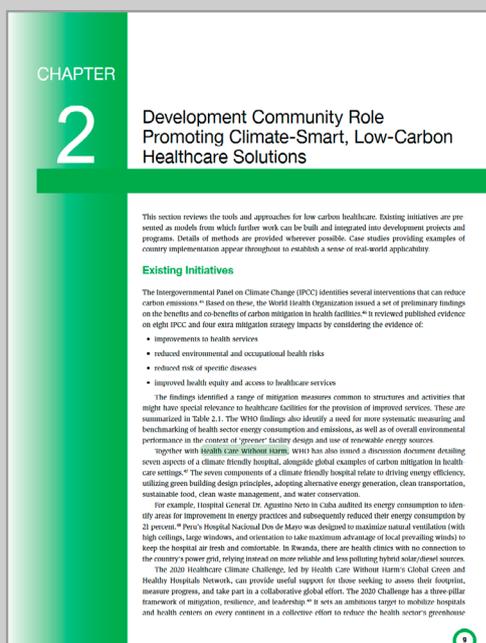
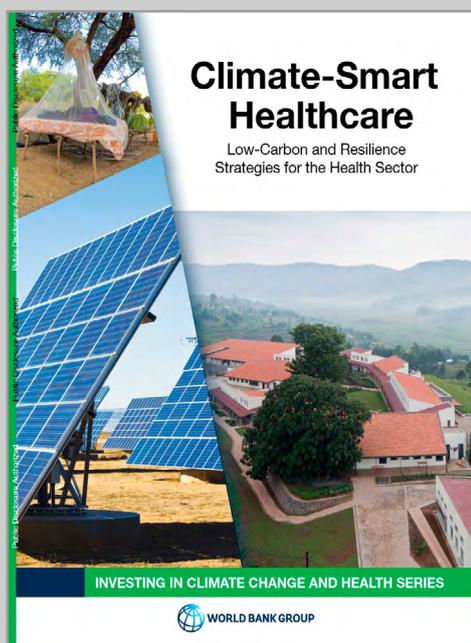
This report will serve as the basis for the World Bank's future investments in the sector, while also serving as guidance for GGHH members and the broader health care sector across different areas of their operations and supply chain.

## HEALTH CARE CALL TO ACTION ON CLIMATE CHANGE

At the COP23 climate negotiations in Bonn, Germany, leading hospitals and health systems around the world issued a Call to Action for the health sector to play a leadership role in tackling climate change.

Organized by Health Care Without Harm and its Global Green and Healthy Hospitals Network, 137 institutions in 33 countries, representing the interests of more than 10,000 hospitals and health centers, have joined the Health Care Call to Action on Climate Change.

The Call to Action calls on the entire health sector to address its own climate impacts, to create climate-smart development strategies, and to prepare for expected serious climate change-induced extreme weather impacts.



*"The health impacts of climate change and the health benefits of climate action are becoming increasingly clear. Health care, with its hospitals on the front lines, must be part of the solution."*

World Health Organization Director-General,  
**Tedros Adhanom Ghebreyesus**

## COP23 EUROPEAN CLIMATE AND HEALTH CARE ROUNDTABLE

At the COP23 climate negotiations in Bonn, Health Care Without Harm Europe and its European Health Care Climate Council convened over 20 representatives from leading European hospitals and health systems to discuss the role of health care in addressing climate change.

Several GGHH members and participants in the 2020 Health Care Climate Challenge attended to share their strategies for climate-smart health care and to discuss opportunities for collaboration in the future.



**Participants in the European Climate and Health Roundtable, Bonn, Germany, discussed how health care can address climate change in the region**

# LARGE-SCALE CHANGE

## SUSTAINABLE PROCUREMENT IN THE HEALTH SECTOR

In 2015, the United Nations Development Program (UNDP) and Health Care Without Harm began a joint project to integrate sustainable criteria into UN health sector procurement with the support of the UN Foundation and the Skoll Foundation.

Among the highlights of our joint work to date are:

- Development of supplier engagement strategies for the health sector.
- Systematic evidence reviews to develop a list of chemicals of concern that will guide GGHH members and ministries of health to substitute hazardous substances in health care products and materials.
- Production of guidance documents and training for health care procurement officers on how to integrate sustainability into procurement.

These efforts are just the beginning. In 2018, HCWH and UNDP will begin phase II of this work in a project funded by the Swedish International Development Agency in ten countries. HCWH will engage with the GGHH network to identify substitutes for hazardous chemicals, along with carbon-intensive and high resource-consuming technologies in specific health care products, while supporting sustainable procurement initiatives among our members.

This work opens the door to the possibility of transforming consumption and production of the products the health sector buys across the global economy.



HCWH and UNDP are embarking on a four-year project that will promote sustainable procurement and benefit GGHH members



# LARGE SCALE-CHANGE

## NATIONAL AND SYSTEM ADOPTION

GGHH engages with national institutions and large health systems to support the adoption of green health care policies and practices that are applied across an entire organization's portfolio of hospitals and health centers. The impacts can be immense, as these institutions and systems manage a multitude of health care facilities.

Through this relationship, HCWH and GGHH can help China chart the course for a national green health system based, in part, on the GGHH Agenda. Combined with expanded partnerships with other large, government-related entities responsible for health care construction, this provides a major opportunity for large-scale change in China's health care sector.

### CHINA

In early 2017, HCWH signed a five-year MOU with China's National Health Development Research Center (NHDRC)—part of the country's Ministry of Health and a new member of GGHH—to collaborate on expanding the role of environmental sustainability in China's health sector.

In the coming years, we will continue to build the GGHH network in China and India, while engaging national health systems on every continent.



Signing of MOU with China National Health Development Research Center

GGHH members are using innovation, ingenuity, and investment to transform the health sector and foster a healthy future for people and the planet.



# GGHH REGIONAL SPOTLIGHTS

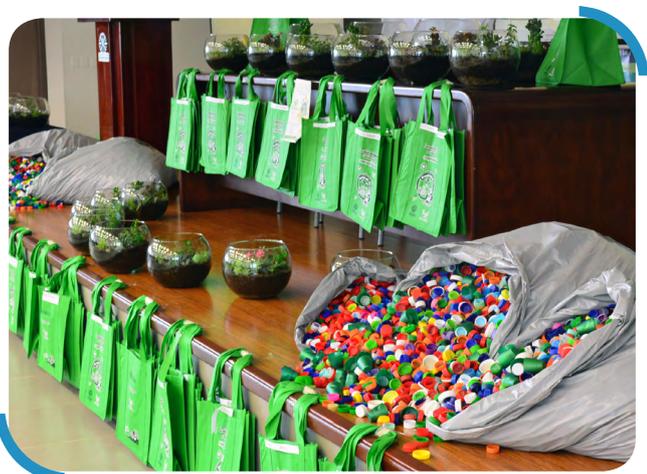
Four HCWH regional offices and six strategic partner organizations manage and coordinate GGHH on the ground. They take the GGHH Agenda and framework of ten sustainability goals and deliver regionally customized programs, resources, and tools to educate, engage, and empower health care to reduce its environmental footprint. By working directly with thousands of health care facilities in each region, they ensure members have access to the resources and people needed to inform and implement successful sustainability programs.

## LATIN AMERICA

Salud sin Daño (HCWH Latin America), manages GGHH in Latin America.

HCWH strategic partner Projeto Hospitais Saudáveis (PHS) manages GGHH in Brazil.

- Salud sin Daño hosted its third GGHH regional conference in 2017 in conjunction with the Brazilian Healthy Hospitals Seminar, organized by PHS.
  - Over 500 participants from six countries attended.
  - PHS has hosted their national seminar annually for ten years.
- In 2017, Salud sin Daño hosted and/or collaborated on 12 events in eight countries to engage and educate health sector representatives and members on sustainable health care and GGHH.
- Since the 2012 launch of their webinar program to educate the region on sustainable health care issues and strategies, Salud sin Daño has hosted 46 webinars attended by over 2,500 people from 20 countries.



## EUROPE

---

HCWH Europe manages GGHH in Europe.

- GGHH has held annual members' meetings since 2016 to bring together members from around the continent and beyond.
  - 2016 – CleanMed Europe, Copenhagen.
  - 2017 – HCWH Annual General Meeting, Berlin.
- HCWH Europe launched the European Health Care Climate Council, a coalition of hospitals and health systems that are committed to strengthening the health sector's response to climate change.

## UNITED STATES

---

Practice Greenhealth (PGH) is the organizational member of GGHH in the U.S. with members representing over 1,100 hospitals around the country.

- PGH runs the Greenhealth Academy to offer innovative, essential information through programs covering all aspects of sustainability in health care. The trusted source for vetted, cutting-edge information, Greenhealth Academy offers webinars, eLearning, sharing calls, and face-to-face programs designed for all functional areas of green teams within the health care sector.
  - Greenhealth Academy has hosted over 300 webinars and e-learning events.
- PGH, in collaboration with HCWH, hosts their CleanMed conference annually. The multi-day event is the premier national environmental conference for leaders in health care sustainability who are on the leading edge of greening the health care sector.
  - CleanMed has taken place 14 times at locations around the U.S.
- The Greenhealth Cost of Ownership Calculator, created by PGH, is a valuable resource launched in 2016 to support the health sector in evaluating the hidden costs of medical devices before purchasing in order to save money and reduce environmental impacts.

## NEPAL

---

HCWH strategic partner the Health Care Foundation of Nepal (HECAF) manages GGHH in Nepal.

- In 2017, HECAF hosted three GGHH seminars covering six districts in three provinces in Nepal. 149 participants from 68 hospitals and 10 organizations participated.
- In 2017 HECAF provided training for 30 participants from 19 member hospitals on writing case studies, and on using the Hippocrates Data Center to track sustainability projects.
- HECAF collaborated with WHO SEARO to visit GGHH members in Nepal as part of a regional meeting on health care waste management. This enabled HECAF to bring international experts, multilateral development agencies, government, NGOs and private health care facilities together to engage on this issue.



# GGHH REGIONAL SPOTLIGHTS

## PACIFIC

HCWH strategic partner the Climate and Health Alliance (CAHA) manages GGHH in the Pacific.

- Since 2012, CAHA has organized five regional think tank/forum events and six members' meetings to create a venue for GGHH members and the broader health care community from the region to come together, collaborate, and develop a network to accelerate progress toward achieving sustainable health care.
- Since 2016, three GGHH members in Australia have been recognized by their state governments with the Premier's Sustainability Awards.
  - Mater Health, Queensland – 2016
  - Melbourne Health, Victoria – 2016
  - Western Health, Victoria – 2017



## INDIA

HCWH strategic partner the Public Health Foundation of India (PHFI) manages GGHH in India.

- GGHH launched in India in 2017 via the Health and Environment Leadership Platform.
- PHFI co-hosted the International Conference of the Pacific Basin Consortium, with a focus on environmental health and sustainable development.
  - The event included a symposium on "Health Sector Leadership on Environment – Decarbonising Health Care" to introduce the vision and need for climate-smart health systems.



## CHINA

HCWH strategic partner Rock, Energy, Environment Institute (REEI) manages GGHH in China.

- Members include several major institutions in China, such as the China Academy of Building Research, the China Hospital Association, and Beijing's municipal hospital system.
- REEI staff attend municipal, regional, and national hospital and health care events annually to promote GGHH and build the network.
- REEI has published fourteen articles on GGHH and sustainable health care with several carried by national newspapers.

## SOUTHEAST ASIA

HCWH Asia manages GGHH in Southeast Asia.

- In October of 2017, the 4th Green Hospitals Asia Conference took place in Taipei, Taiwan. Over 300 participants gathered from around Asia and beyond to discuss and exchange strategies and approaches for the health sector to address climate change and its destructive health and environmental impacts.
- The GGHH Asia webinar series entered its second year in 2017, with presentations on topics such as climate-resilient health care and renewable energy for participants from around the region.



## AFRICA

groundWork manages GGHH in Africa.

groundWork's activities include:

- Holding four national member meetings and 12 provincial forums since 2014.
- Hosting the first health care waste forum in 2017 for members in Gauteng province, South Africa.
- Launching a GGHH Africa webinar series in 2017.
- Receiving official accreditation for training on sustainable health care and GGHH for environmental health practitioners.



Since 2013, GGHH has developed a robust series of resources and tools to educate and assist members in achieving their sustainability goals. From cutting-edge online platforms that connect members with colleagues and experts from around the globe, to educational tools and events that keep them on the pulse of the sustainable health care field, the GGHH suite of resources supports members in every step of project implementation from inception to monitoring.

An engaged GGHH network creates an environment where members are collaborating, innovating, and supporting one another to be successful. The accomplishments and engagement of each member accelerate the progress of the collective to transform the health sector.

### GGHH CONNECT

GGHH Connect, an innovative online platform launched in 2014, serves as the connective tissue of the GGHH network. It allows the GGHH community of members and experts to connect with one another from anywhere in the world.

Using Cisco Systems technology, the platform allows members to crowdsource advice on their projects from colleagues in their own countries and regions and around the globe to implement effective and efficient sustainability solutions.

GGHH Connect houses the suite of GGHH resources and tools, providing members with a one-stop clearinghouse to access the information and expertise they need.

### GGHH Connect Highlights

- GGHH Connect has 1,000 active accounts and users.
- GGHH Connect averages 1,000 visits per month from users around the globe.
- Since its launch in 2014, GGHH Connect has had over 1,200 posts from GGHH members and experts sharing and discussing approaches and strategies for implementing the 10 GGHH sustainability goals.

### WEBINAR SERIES

The GGHH webinar series offers informational, educational, and interactive monthly web events to learn about the latest from the field of sustainable health from experts and GGHH members around the globe.

From the ten GGHH sustainability goals, to current events of interest, to important research and publications, GGHH webinars focus in on topics to provide health care sustainability professionals with technical information, real-world examples, and cutting-edge approaches to improving sustainability at health care facilities.

2017 saw the launch of a GGHH webinar series in Africa, as well as expanded programs in Asia, Latin America, and Europe.

Since the launch of the global webinar series in 2015, GGHH and its regional offices and partners have held 71 webinars attended by over 4,400 people.

# HIPPOCRATES

Launched in 2016, the Global Green and Healthy Hospitals Hippocrates Data Center is the first international platform of its kind designed for the health sector to measure actions toward reducing its environmental footprint.

This cutting-edge resource puts the power of data management, goal benchmarking, and progress-tracking into the hands of each GGHH member.

Housed on GGHH Connect, Hippocrates allows members to track, store, and visualize their data on a secure, web-based platform.

In 2017, GGHH launched data forms on waste and energy and fully integrated Hippocrates into the new Green Health Challenges initiative. Members will use Hippocrates to participate in these challenges in order to track their progress and become eligible for the new Green Health Awards.



Participants of the GGHH/Hippocrates Data Center training workshop in Nepal



GGHH members are at the cutting edge of the sustainable health care field, using their innovation, ingenuity and investments to implement programs to reduce their environmental footprint and protect public health.

Today, **more than 165 GGHH case studies** are available on our website.

**AUSTRALIA** | Melbourne Health has saved over \$230,000 and reduced clinical waste by over 187 tons since 2013 through the implementation of a waste-reduction program in their operating theaters.

**CHILE** | Hospital Dr. Víctor Ríos Ruiz de Los Ángeles launched a program to reduce pharmaceutical waste from its facility for both environmental and economic benefits. Within one year they achieved a 59% reduction equivalent to over 160kg of pharmaceuticals removed from the waste stream.

**INDIA** | Aravind Eye Care, Pondicherry focused on increasing recycling and improving management of bio-medical waste to protect its staff and community. In the first year of the project, they made over \$2,000 through the sale of recycled materials.

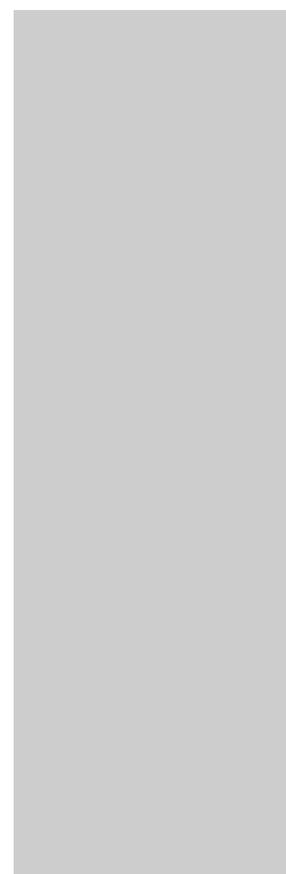
**MALAYSIA** | Buddhist Tzu-Chi Dialysis Centre, Penang Branch implemented a series of energy-saving projects around their facility to reduce usage, carbon emissions, and costs. By retrofitting and upgrading equipment, they reduced their emissions by over two tons per year and lowered their electricity costs by 16.5 percent.

**PHILIPPINES** | St. Paul Hospital Cavite began work on a new waste management program with a goal of reducing all waste at their facility by 20 to 30 percent. In the first year they built a materials-recovery facility, installed autoclaves for on-site treatment of infectious waste, and began composting.

**SOUTH AFRICA** | Bongani Regional Hospital launched a hospital-wide waste management improvement project supported by a new online waste data-monitoring program. Within the first year, the project has resulted in savings of over \$23,000 and a reduction of more than 10,000kg of medical waste.



Acting together for environmental health



# GREEN HEALTH CHALLENGES

In 2017, GGHH launched the Green Health Challenges, a new initiative to challenge its robust network of members to commit to further reducing their environmental footprint.

The Green Health Challenges initially focus on two of the ten GGHH Sustainability Goals: waste and energy. They also include GGHH's 2020 Health Care Climate Challenge.

The Green Health Challenges are a data-driven initiative, designed to help health care organizations commit to sustainability goals and track their own environmental projects and efforts.

Each challenge contains a series of targets, indicators and focus areas that provide a pathway for individual members, and for the GGHH network as a whole, to measurably reduce their footprint.

We have designed the Green Health Challenges with a multi-tier structure that allows members to pick and choose goals according to their specific capabilities and resources. This design aims to make the challenges accessible to GGHH members of all sizes and levels of sustainability experience.

Through data submission on the Hippocrates Data Center, members can report, track and visualize their progress while contributing to an aggregated global view of the GGHH network's efforts to reduce its environmental footprint.



Green  
Health  
Challenges

*"The Green Health Challenges provide a framework for us to work off of, measure our progress, and compare ourselves to other organizations around the world to see how well we are performing. In addition, they provide an opportunity for us to share some of things we've learned with others about what works and doesn't work so we can support this community in achieving collective success."*

**Tom Harris**

Sussex Community NHS Trust  
England

*"The Green Health Challenges allow UnitingCare Queensland to be a part of something that's bigger than just our organization. It's important that we participate in the broader, global health sector community working together to reduce our carbon emissions and that our organization is seen to be taking action and being held accountable for our environmental footprint."*

**Judene Andrews**

UnitingCare Queensland  
Australia

# HEALTH CARE WASTE MANAGEMENT

## SUSTAINABILITY IN AFRICA

In 2017, Health Care Without Harm began to work in partnership with the United Nations Development Program (UNDP), the World Health Organization (WHO) and our strategic partner in South Africa, groundWork, to support hospitals around the continent in the implementation of sustainable health care waste management programs and mercury device elimination. Funding for the project comes from the Global Environment Facility.

The project takes place in four African countries. In each country, we work with a series pilot hospitals, which become GGHH members through their participation.

These countries include:

- Ghana
- Madagascar
- Tanzania
- Zambia

Starting in early 2018, project hospitals will install and begin treating their waste with autoclaves manufactured in South Africa and designed specifically for African facilities.

They will also begin to replace mercury-containing devices with safe and effective alternatives. This in turn supports fulfillment of their obligation under the Minamata Convention on Mercury, which came into force in 2017.



**Construction of a new health care waste management facility at the Cape Coast Teaching Hospital in Ghana, a GGHH member**

# FINANCES

## 2017 INCOME

In addition to in kind donations, total GGHH revenue in 2017 was USD 1,386,000. Sources include:

The Skoll Foundation, which generously invested in the development of GGHH over the past several years.

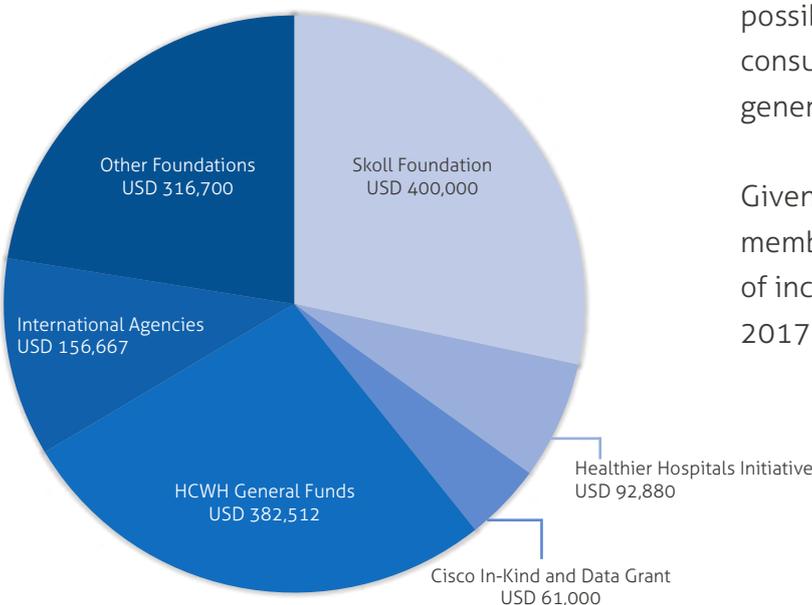
Cisco Systems, which continued providing both in-kind donations to develop GGHH Connect, and funding to develop the Hippocrates Data Center.

International agencies support our collaboration on green procurement and waste in multiple countries.

A number of philanthropic foundations that provide general funds to HCWH.

Several large hospital systems and philanthropic foundations fund Practice Greenhealth, which carries out GGHH's mission in the U.S.

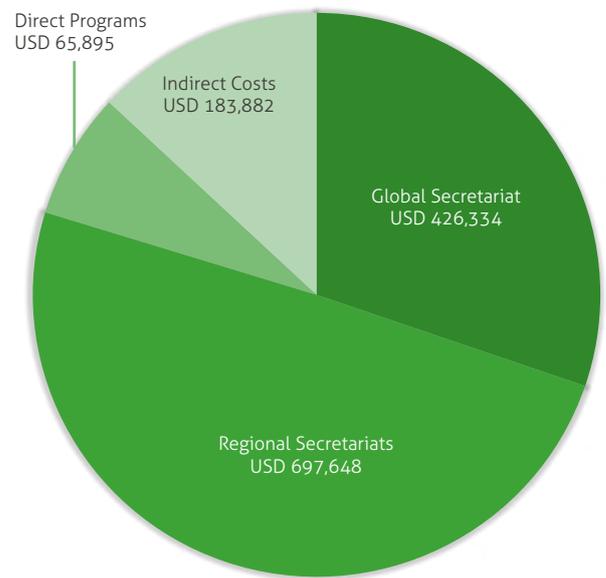
Local entities also co-finance the activities of our members and partners in many regions of the world.



## 2017 EXPENSES

GGHH spends most of its income to implement programs and activities as well as develop the network at the national and regional levels.

A portion of GGHH's income also finances a Global Secretariat that coordinates the network and provides support for members.



## GENERATING REVENUE

In 2017 GGHH piloted online learning as a possible revenue generator, and contracted a consultant to help develop a model for revenue generation.

Given the diverse financial resources of GGHH members, analysis and evaluation of a wide range of income opportunities progressed throughout 2017. In 2018 this will continue to be a priority.

# ABOUT HEALTH CARE WITHOUT HARM

Global Green and Healthy Hospitals is a project of Health Care Without Harm.

HCWH works to transform health care worldwide so that it reduces its environmental footprint and becomes a community anchor for sustainability and a leader in the global movement for environmental health and justice.

HCWH's vision is that health care mobilizes its ethical, economic and political influence to create an ecologically sustainable, equitable and healthy world.

## HCWH ASIA

Unit 203, Kalayaan Center Building  
65 V Luna Road cor. Kalayaan Avenue, Brgy. Pinyahan, Quezon  
City 1101, Philippines  
ph: +63 2 9287572  
fax: +63 2 9262649  
e: [info@no-harm.org](mailto:info@no-harm.org)  
[www.noharm-asia.org](http://www.noharm-asia.org)

## HCWH EUROPE

Rue de la Pépinière 1,  
Brussels 1000, Belgium  
ph: +32 2503 4911  
e: [europe@hcwh.org](mailto:europe@hcwh.org)  
[www.noharm-europe.org](http://www.noharm-europe.org)

## HCWH INTERNATIONAL COORDINATION

e: [global@hcwh.org](mailto:global@hcwh.org)  
[www.noharm-global.org](http://www.noharm-global.org)

## HCWH LATIN AMERICA

e: [info@saludsindanio.org](mailto:info@saludsindanio.org)  
[www.saludsindanio.org](http://www.saludsindanio.org)

## HCWH USA & CANADA

12355 Sunrise Valley Dr., Suite 680  
Reston, VA 20191  
United States of America  
ph: +1 703 860 9790  
fax: +1 703 860 9795  
e: [info@hcwh.org](mailto:info@hcwh.org)  
[www.noharm-uscanada.org](http://www.noharm-uscanada.org)



[WWW.NOHARM.ORG](http://WWW.NOHARM.ORG)

All photos by HCWH and partners  
Design by Alejandra Livschitz



GGHH members celebrate at the network's Latin America regional meeting in Sao Paulo, Brazil

