



EUROPEAN HEALTHCARE CLIMATE SUMMIT

TARGETING HEALTHCARE'S
EMISSIONS HOTSPOTS

29 NOVEMBER 2023



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INTRODUCTION

Building on the momentum and successes of the four previous editions, Health Care Without Harm (HCWH) Europe held its annual European Healthcare Climate Summit in Brussels, Belgium, on 29 November 2023. The fifth edition of the conference brought together over 70 participants from across Europe, including sustainability practitioners, academics, hospital management, and healthcare professionals, to tackle the highest-emitting parts of healthcare delivery and share climate-smart healthcare solutions. This annual conference aims to help transform European healthcare into a net zero carbon and climate resilient sector that protects public health from climate change and accelerates the transition to a low-carbon economy.

This year's Summit focused on sharing impactful and replicable European best practices to reduce emissions originating from hospital infrastructure, transportation, and the procurement and use of pharmaceuticals and single-use devices. Seven case studies were presented at the event. Participants had the opportunity to discuss their challenges and successes in building climate-smart healthcare, and make connections with like-minded professionals, driving collaborative efforts toward decarbonisation of the healthcare sector.



AGENDA

OPENING SESSION



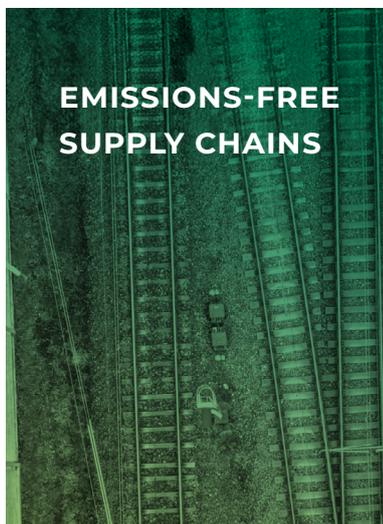
10:00-10:10 WELCOME AND INTRODUCTION

Arianna Gamba, Director of Programmes - HCWH Europe

10:10-10:30 KEYNOTE: HEALTH, CARE, AND SUSTAINABILITY

Maria Gaden, Leader - Center for Sustainable Hospitals (CfSH) Denmark

PLENARY SESSIONS



10:30-10:50 TACKLING SINGLE-USE DEVICES

An exploratory study on the sustainability of commonly used materials in hospitals

Liesbet Demarre and Katrien Vanderwee, Researchers - Ghent University Hospital (UZ Gent)

10:50-11:25 TACKLING PHARMACEUTICALS

Use of halogenated anaesthetics in Italy and their associated carbon footprint: a country-wide study

Dr Francesco Barone-Adesi, Associate Professor of Public Health - Università del Piemonte Orientale

Procurement of pharmaceuticals for healthcare decarbonisation

Dr Josep M. Guiu, Director of Pharmacy and Medicines - Consortium of Health and Social Care of Catalonia



11:45-12:05 CLIMATE-SMART HOSPITAL BUILDINGS

Building with Care: Sustainability all the way through the healthcare system

Marija Stamenkovic, Senior Consultant and Program Manager, Sustainable Construction - Capital Region Denmark

12:05-12:25 CLIMATE-SMART TRANSPORT SOLUTIONS

Exploring the Carbon Footprint of Virtual Wards in Hampshire Hospitals

Kate Townsend, Programme Manager, Greener NHS team - NHS England
Paul Flattery, Pharmacist, Telemedicine & Virtual Ward - Hampshire Hospitals NHS Foundation Trust

BREAKOUT SESSIONS



FROM THEORY TO PRACTICE

13:30-14:15 SAFER PHARMACEUTICALS

Safer pharmaceuticals, climate mitigation and climate adaptation

Dr Josep M. Guiu, Director of Pharmacy and Medicines - Consortium of Health and Social Care of Catalonia

Erik Ruiz, Safer Pharma Programme Manager - HCWH Europe

CLIMATE-SMART HOSPITAL BUILDINGS

University Mollet Hospital: A Net Zero in direct emissions

Miguel Ángel Martínez Sánchez, Environmental Director - Fundació Sanitària Mollet

Mireia Figueras Alsius, Climate Programme Manager - HCWH Europe

14:15-15:00 CLIMATE-SMART TRANSPORT SOLUTIONS

Galician Health Service (SERGAS) - Towards sustainable medical transport

Miguel Díaz-Cacho, Biomedical Engineer - Galician Health Service

Anna Tuddenham, Climate Projects Manager - HCWH Europe)

SUSTAINABLE PROCUREMENT AWAY FROM SINGLE-USE DEVICES

Arianna Gamba, Director of Programmes, and Andreea Zotinca, Circular Healthcare Project Officer - HCWH Europe



CLOSING SESSION

15:15-15:30 CLOSING REMARKS

Mireia Figueras Alsius, Climate Programme Manager - HCWH Europe



KEYNOTE

HEALTH, CARE, AND SUSTAINABILITY



Maria Gaden

To begin the day, Maria Gaden, Leader at the Center for Sustainable Hospitals of Central Denmark Region, gave a powerful opening keynote on how the interconnected concepts of health, care, and sustainability underscore the need for a unified effort by the healthcare sector to address its contribution to the growing climate crisis.

Maria described care as an awareness of resource value, and talked about health in the sense defined by Aaron Antonovsky: as a dynamic state of well-being rooted in a person's ability to adapt and manage stressors effectively, which he called a sense of coherence.² This perspective focuses on factors that promote health rather than solely addressing illness. Maria called for the healthcare community to embrace this comprehensive understanding of well-being, as it also naturally promotes the idea that caring about health necessitates caring about sustainability, climate, and the planet. Maria emphasised how the goal is not merely to do things differently, but to do them better, focusing on prevention to reduce the need for care, and thus healthcare emissions.

She concluded by sharing a quote from Nobel Prize winner Ilya Prigogine, who said: "The way to cope with the future, is to create it."³ With this, Maria encouraged all attendees to envision a sustainable healthcare system in their mind's eye and to translate that vision into actionable steps for a healthier future.

Collectively, health systems are one of the largest emitters of carbon - they account for roughly 5% of global emissions, 84% of which derives from fossil fuel combustion.¹

EMISSIONS-FREE SUPPLY CHAINS: TACKLING SINGLE-USE DEVICES

AN EXPLORATORY STUDY ON THE SUSTAINABILITY OF COMMONLY USED MATERIALS IN HOSPITALS



Liesbet Demarre

Globally, 71% of healthcare emissions are primarily derived from the healthcare supply chain, through the production, transport, and disposal of goods and services, including single-use medical devices.⁴ The life cycle of single-use medical devices is thus a significant emissions hotspot within healthcare supply chains in Europe. Liesbet Demarre and Katrien Vanderwee, from the Centre for Nursing Expertise of the Ghent University Hospital, presented their exploratory study on the sustainability of commonly used materials in hospitals. In their year-long project, they and their co-

authors sought to enhance understanding of the potential benefits of substituting single-use medical materials with reusable alternatives. The project was funded by the Belgian Federal Public Service for Health, Food Chain Safety, and Environment.

Their research first explored the most used items across 12 Belgian hospitals and then compared five common single-use medical items and their reusable alternatives across four parameters: safety, environmental sustainability, costs, and efficiency. All five were examples of items that could have textile alternatives or be sterilised between use.

For one of the items, a vaginal speculum, they conducted a Life Cycle Assessment to contrast the sustainability of single-use and reusable versions. The findings indicated that sterilisable vaginal speculums have a lower environmental footprint compared to their single-use counterparts, primarily due to the ability to power the sterilisation process with renewable energy. The climate impact of single-use speculums was predominantly associated with the raw materials used during production and the waste generated during use.

Katrien and Liesbet found that reusable medical items were equally as safe as their single-use counterparts for both patients and healthcare workers. They also mostly ranked as more cost-effective - challenging the prevailing perception that single-use devices are not only safer but also cheaper than sustainable alternatives.

The recommendations of their study include integrating sustainability criteria into the procurement process, encouraging sustainable materials in tenders, and optimising waste sorting for recycling.



Katrien Vanderwee

FROM THEORY TO PRACTICE: SUSTAINABLE PROCUREMENT AWAY FROM SINGLE-USE DEVICES



Arianna Gamba

Sustainable procurement of goods and services represents a significant opportunity for organisations to transition towards a net zero carbon and climate-resilient healthcare sector. HCWH Europe team members Arianna Gamba, Director of Programmes, and Andreea Zotinca, Circular Healthcare Project Officer, facilitated a discussion on practical ways to move towards responsible resource consumption and foster a collective commitment to greener practices in the healthcare sector. They presented the waste hierarchy as a foundational framework, urging participants to prioritise waste prevention and reduction. Encouraging a circular

economy approach, Arianna and Andreea emphasised the need for product design that considers the entire lifecycle, promoting reuse and recycling to minimise environmental impact.

During the discussion, participants identified challenges in addressing the sustainability of medical device supply chains, including a lack of transparency from producers, insufficient data on carbon footprints, absence of criteria for sustainable procurement, and a misconception that single-use devices reduce infection rates.



Andreea Zotinca



They discussed how upskilling was necessary for procurers, to empower them to procure sustainable products. Some suggested developing a standardised checklist for procurement managers with verified sustainable brands to work with, as well as on-the-ground advocacy in the workplace to encourage behavioural change.

Participants identified opportunities to promote healthy circular medical devices in the supply chain, including:

- Fostering a social economy through local sterilisation
- Encouraging a market for reusable items
- Promoting the long-term savings achieved by using reusable products
- Creating standards for sustainable procurement
- Increasing research on climate impact
- Collaborating with companies for eco-design
- Implementing waste taxes
- Leveraging technology, e.g. AI and digitalisation, for environmental supply chain promotion

To foster the development of a circular supply chain, participants underscored the critical role of international exchanges. These interactions serve as valuable opportunities to glean insights from successful initiatives, as well as to discuss overcoming obstacles. They agreed that pressure from hospital coalitions and sustainability representatives towards suppliers could increase sustainable product innovation and design, promoting a reduction in waste and resource consumption that lowers healthcare's carbon emissions. These efforts will help to make the healthcare sector a leader in implementing sustainable supply chains, accelerating the transition to a low-carbon economy.



EMISSIONS-FREE SUPPLY CHAINS: TACKLING PHARMACEUTICALS

Pharmaceutical production and use comprise a quarter of healthcare's supply chain emissions.⁵ The Summit hosted two pharmaceutical experts to explore how hospitals can address the carbon footprint of pharmaceuticals and why this is critical for mitigating climate change and protecting public health.

USE OF HALOGENATED ANAESTHETICS IN ITALY AND THEIR ASSOCIATED CARBON FOOTPRINT: A COUNTRY-WIDE STUDY



*Dr Francesco
Barone-Adesi*

Dr Francesco Barone-Adesi, Associate Professor of Public Health at the Center for Research and Training in Disaster Medicine, Humanitarian Aid, and Global Health at Università del Piemonte Orientale in Italy, shared his research on the use of halogenated anaesthetics, such as desflurane, in Italy and their contribution to climate change.

His research found that desflurane currently plays a major role in greenhouse gas emissions stemming from halogenated agents in Italy. In the period 2009-2021, the use of desflurane substantially increased, and this gas is now responsible for over 90% of GHG emissions

associated with the use of halogenated agents.⁶ Desflurane has a high global warming potential when compared with other halogenated anaesthetics such as sevoflurane.

Dr Barone-Adesi highlighted that the country could substantially and widely reduce its use of desflurane while delivering high-quality care. Notably, Scotland recently banned desflurane, and the EU is considering following suit in 2026.

Dr Barone-Adesi then presented comparisons with Scotland as well as Denmark that showed the lack of a coherent global or European trend to reduce desflurane use, with some countries lacking data on desflurane usage altogether. This information gap extends to nitrous oxide, further complicating efforts to assess and address the environmental impact of anaesthetics on a wider scale.

In 2023, NHS Scotland's Green Anaesthesia Scotland project won Sustainable Healthcare Project of the Year at the European Sustainable Healthcare Awards for its work to reduce the environmental impact of medical gases across healthcare services, including by phasing out desflurane.

He concluded by emphasising the discrepancy between recommendations from scientific societies and actual practices as an opportunity for improvement and called for better data collection as crucial for understanding and mitigating the environmental footprint of anaesthetic gases.

PHARMACEUTICAL PROCUREMENT FOR HEALTHCARE DECARBONISATION



Dr Josep Guiu

Dr Josep M. Guiu, Director of Pharmacy and Medicines at the Consortium of Health and Social Care of Catalonia, then spoke on the importance of sustainable procurement of pharmaceuticals. Although medicines account for 25% of emissions within healthcare systems, 20% of those associated emissions can be attributed to manufacturing and distribution.⁷ In his presentation, Dr Guiu emphasised the pivotal role of health systems in driving changes in procurement practices. Specifically, hospital purchasing power can act as leverage, accelerating changes in procurement, particularly in the evaluation and selection processes of medicines and healthcare products.

Dr Guiu called for a shift in protocols, criteria, and assessment, with a focus on environmental impact. While some considerations are already integrated at the European Medicines Agency (EMA), Dr Guiu highlighted recent institutional commitments at national and health system levels, including at his organisation in Catalonia, which operates partly as a central procurement body. They are now giving increasing importance to explicit environmental criteria as added value for medicines and healthcare products.

As the movement to decarbonise the healthcare sector gains momentum, Dr Guiu discussed specific challenges within the pharmaceutical field. He emphasised the need for dialogue with suppliers, advocating for certification, avoiding greenwashing, promoting social and environmental value, fostering sustainability innovation, and collaborative projects to reduce environmental impact.



FROM THEORY TO PRACTICE: SAFER PHARMACEUTICALS



Erik Ruiz

Following the presentations on tackling pharmaceutical-related emissions, Erik Ruiz, Safer Pharma Programme Manager at HCWH Europe, and Dr Guiu facilitated a discussion about advocacy, mitigation, and adaptation strategies for combating climate change in hospital pharmacies.

For Dr Guiu, adapting to the reality of a changing climate for pharmacies means safeguarding the supply chain, becoming educated on the environmental impact of medicines, and active disaster planning. He joined Dr Barone-Adesi in stressing the importance of advocating the use of equally effective yet less harmful anaesthetic agents. Other key mitigation strategies for hospital workers are reviewing prescribing guidelines to emphasise accurate dosing, optimising anaesthesia care, and updating disaster plans. Additionally, Dr Guiu explored integrating environmental sustainability into pharmaceutical pricing by assessing environmental impact thresholds and conducting sustainability-adjusted quality-of-life assessments.

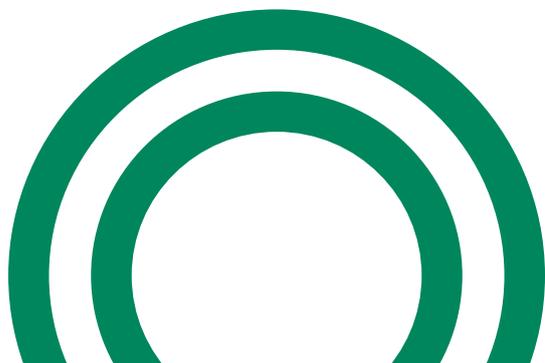
In the discussion, participants considered various recommendations for greening the pharmaceutical supply chain, including:

- Incorporating product environmental footprints in EMA authorisations
- Relocating drug production to Europe
- Implementing closed-loop water systems
- Mandating sustainable sourcing policies

Participants then proposed initiatives at all levels of healthcare and the supply chain, including:

- Setting actionable goals for managers
- Promoting sustainable drug distribution
- Providing incentives to suppliers for environmental efficiency
- Ensuring transparency in efficacy data
- Educating Active Pharmaceutical Ingredient suppliers
- Increasing investment in prevention and monitoring.

The participants highlighted that building networks in healthcare to leverage the significant purchasing power of healthcare systems has the potential to make sustainability a priority in the pharmaceutical supply chain.



HEALING ENVIRONMENTS:

CLIMATE-SMART HOSPITAL BUILDINGS

BUILDING WITH CARE - SUSTAINABILITY ALL THE WAY THROUGH THE HEALTHCARE SYSTEM



Marija Stamenkovic

Healthcare facilities and buildings are another important source of healthcare emissions. Marija Stamenkovic, Senior Consultant and Program Manager of Sustainable Construction at Capital Region Denmark, explored how design and construction choices can create healthier hospitals for both people and the planet with both renovations and new builds. Titled “Building with Care - Sustainability all the way through the healthcare system,” Marija’s presentation focused on Capital Region Denmark’s vision of sustainable construction, which takes a holistic approach and considers far more than the economic bottom line. Their method

devotes attention to materials, indoor climate, energy, resources, and economy, as well as to the influence of buildings on the people who enter the space. Marija shared that a new Danish law requires that all new buildings must follow a limit value of 12kg CO₂e per square metre per year. This law, which took effect in 2024, also mandates the documentation of their environmental impact through Life Cycle Assessment over the first 50 years of their lifespan. Such legislation encourages sustainable building practices like the 500 ongoing projects of Capital Region Denmark.

Marija shared how the institutional embrace of sustainability principles guides their current biggest project, the construction of the “Playfully Logical and Sustainable” New Children’s Hospital – Mary Elisabeth, in Copenhagen. The decision to rebuild the hospital, rather than renovate the dated original structure, was grounded in a focus on sustainability.

Beyond a focus on minimising the building’s carbon footprint, the hospital was also designed around five core principles that encourage patient, visitor, and staff wellbeing. The design prioritises integrating play, as children require and want play even when ill, as well as creating a space for everyday use, to eliminate the feeling of life standing still while in hospital. Each principle is visible in the ongoing construction of the hospital, such as the rooms designed to comfort grieving mothers experiencing miscarriage, to the increased access to natural light, the interior gardens, and the use of tactile materials for children to touch. Marija advocated using sustainability to rethink how we do everything, not just how we source energy and materials. Her presentation demonstrated that climate-smart and resilient hospitals not only minimise carbon emissions but also improve patient care and general well-being.



FROM THEORY TO PRACTICE: CLIMATE-SMART HOSPITAL BUILDINGS

UNIVERSITY MOLLET HOSPITAL: A NET ZERO IN DIRECT EMISSIONS



*Miguel Angel
Martínez Sánchez*

The discussion on putting climate-smart building strategies into practice within healthcare, moderated by HCWH Europe's Mireia Figueras, began with a presentation from Miguel Angel Martínez Sánchez. Miguel is the Environmental Director at Fundació Sanitària Mollet, a non-profit healthcare provider in Catalonia committed to environmental sustainability since 2006. Miguel demonstrated how the organisation prioritises sustainable facilities, processes, and green culture.

He shared the progress of the foundation's main hospital building, the Mollet University Hospital, which has achieved an 85% reduction in direct CO₂e emissions over 11 years.⁸ Participants heard how the facility became an example of a climate-smart building, based on the following choices:

- Natural courtyards, which filter natural light in all rooms, reducing light consumption by 40% and CO₂e emissions by 280,000 kg
- Gravel and plant rooftops, which improve thermal insulation and acoustic comfort
- Radiant ceilings, which act as a green air conditioning system
- An 80m³ cistern that collects rainwater for the courtyards, reducing annual water consumption from 39,000 to 26,000 m³ over 11 years
- The use of geothermal energy, with 148 wells of 146 metres deep reducing the air conditioning energy consumption by 30%

During the discussion, participants shared their ideas of what makes a climate-smart hospital building, including energy efficiency, adaptive and climate-responsive design, use of sustainable and circular materials, and a focus on improving and protecting the local environment around the hospital itself. Others called for increased daylight access, bicycle infrastructure, and rainwater recuperation, as well as for hospitals to be health-promoting and work towards being carbon-negative beyond carbon-neutral. They then discussed how procurement can help in achieving this kind of building. The main ideas were:

- Calling for legislation to restrict harmful and carbon-intensive materials
- Creating networks of hospitals committed to sustainable procurement to incentivise suppliers to prioritise sustainability
- Developing criteria for sustainable procurement
- Fostering collaboration between architects, sustainability experts, and suppliers in matters of renovation and construction

HEALING ENVIRONMENTS: CLIMATE-SMART TRANSPORT SOLUTIONS

EXPLORING THE CARBON FOOTPRINT OF VIRTUAL WARDS IN HAMPSHIRE HOSPITALS



Kate Townsend

Transport plays a pivotal role in the healthcare sector, and initiatives such as virtual wards and the implementation of sustainable logistics can help to reduce emissions, enhance patient well-being, and contribute to a greener, healthier future. Kate Townsend, Programme Manager of Greener NHS, and Paul Flattery of the Telemedicine & Virtual Ward team at Hampshire Hospitals presented their research on the carbon footprint of virtual wards in Hampshire Hospitals. This collaboration between NHS and Hampshire Hospitals aims to reduce healthcare emissions, which currently account for 5% of the total healthcare emissions in

the United Kingdom. Virtual wards were presented as a safe and efficient alternative to the typical bedded care model of the NHS. Patients who would typically be hospitalised can now receive the necessary monitoring and treatment in their own homes. Such an initiative can prevent hospital admissions, which not only reduces building emissions but can also help to alleviate overburdened healthcare systems.

Kate and Paul shared how they made use of the new toolkit, titled *Greener care at home - Assessing the environmental sustainability of virtual wards*, to calculate the carbon footprint of the patient pathway, identify the emissions hotspots, and present the benefits of virtual ward versus inpatient stays. They found that patients in a virtual ward had a footprint of only 8.4 kg CO₂e per day, compared to the 24.1 kg CO₂e per day of an inpatient stay. Based on this, the project prevented 283,337 kg of carbon emissions over 13 months. Their research revealed that the ambulance journey to the hospital is itself a major part of the footprint. Kate and Paul concluded that virtual wards are a lower-carbon model of care, and validated the importance of a national toolkit to calculate carbon footprint.



Paul Flattery



FROM THEORY TO PRACTICE: CLIMATE-SMART TRANSPORT SOLUTIONS

GALICIAN HEALTH SERVICE (SERGAS): TOWARDS SUSTAINABLE MEDICAL TRANSPORT



Miguel Díaz-Cacho

During the theory-to-practice session, Miguel Díaz-Cacho, representing the Ourense Health Area of the Galician Health Service (SERGAS), highlighted the region's commitment to environmental sustainability and innovation in healthcare through its recent initiative to partially decarbonise its patient transport. Miguel discussed the primary goals of the initiative, which included reducing dependence on fossil fuels, improving medical transportation, and promoting sustainable healthcare practices. As a result of its green procurement strategy, the Ourense Health Area purchased two electric ambulances. The findings were promising: despite the higher cost of electric ambulances compared to conventional ones, the preliminary results since May 2022 from the two electric ambulances, covering 62,000 km per year, demonstrated an impressive 61% fuel savings. Additionally, there was an 83% reduction in CO₂e emissions.

However, he acknowledged the initiative's limitations, as the sample size was quite small, and it would be difficult to have an entirely electric fleet due to distance and continuous 24-hour operation requirements. Miguel also outlined future challenges, emphasising the need for extensive infrastructure, including expanding fast-recharging points along ambulance routes and addressing autonomy issues during extreme weather conditions. Nevertheless, Miguel highlighted the rapid return on investment and cost savings associated with electric ambulances.

During the discussion, moderated by HCWH Europe's Anna Tuddenham, participants shared their ideas of what climate-smart transport looks like in practice. To avoid unnecessary transportation, especially for those in rural areas, their suggestions included grouping appointments into the same day or utilising telemedicine platforms.

As staff commuting represents a significant portion of healthcare's transport emissions, participants suggested solutions such as:

- Promoting carpooling
- Flexible working
- Incentivising cycling to work
- Encouraging municipalities to build bicycle lanes and express bus routes

Participants suggested that healthcare providers should prioritise and facilitate accessibility to public transport first, and incentivise employees to switch to electric vehicles, such as by constructing free charging stations. They noted how a shift to electric vehicles by public services, such as healthcare, could help shift public perception of their value and importance.



Anna Tuddenham

CONCLUSION:

ADVANCING CLIMATE-SMART HEALTHCARE TOGETHER



Mireia Figueras Alsius delivered the closing remarks of the Summit, sharing her vision of how collaboration and innovation will create a paradigm shift in healthcare that will help power a broader societal transition towards net zero. Mireia highlighted the progress that has been made since the first edition of the Summit, where the first truly global estimate of healthcare's climate footprint was presented.

Mireia Figueras Alsius

The best practices presented at this year's Summit, and the people behind them, all contribute to the growth of a larger initiative in the global healthcare landscape to safeguard the health of the planet and its people.

It is our hope that the European Healthcare Climate Summit serves as a crucial touchpoint for all those engaged in the movement for sustainable healthcare, as well as a catalyst for healthcare climate action.



NEXT STEPS

The healthcare sector must recognise and address its contribution to climate change and the impact of climate change on public health. This means working towards net zero healthcare emissions and adapting now, so our health systems are prepared for the new pressures climate change will create.

The best practices shared at the fifth edition of the Summit are intended to empower professionals across Europe and beyond to adopt and replicate such climate-smart initiatives within their own operations.

HCWH Europe commits to making use of the productive discussions held at the Summit to help advance climate-smart healthcare in Europe. To promote the dissemination of sustainable healthcare practices globally, recordings of the plenary presentations delivered during the event are now accessible online.



GET INVOLVED!

SUBSCRIBE

If you would like to be kept up to date with the latest developments from our Climate-smart Healthcare programme, you can [subscribe to our newsletter here](#).

JOIN THE NETWORK

If you are interested in reducing the environmental footprint of your hospital/health centre, or the impact of your day-to-day work in healthcare, there are several ways you can join our network:

- Organisational [membership of Global Green & Healthy Hospitals](#) (hospitals, health systems, and health centres only) - giving your institution free access to a range of exclusive tools and resources, including our Healthcare Decarbonisation Toolkit.
- [Doctors for Greener Healthcare](#) - bringing together doctors from across Europe to collaborate, share best practices, and advocate for a healthy future by reducing the environmental impact of healthcare.
- [Nurses Climate Challenge Europe](#) - empowering nurses across Europe to take action against the health impacts of climate change.
- [Pharmacists for Greener Healthcare](#) - bringing together pharmacists from across Europe to share their best practices to tackle pharmaceutical pollution and its contribution to antimicrobial resistance (AMR).



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PUBLISHED:

February 2024

PHOTO CREDITS:

Envato Elements and HCWH Europe



IKEA Foundation

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