



## Introduction

*Operation Zero* is [Health Care Without Harm \(HCWH\) Europe's](#) flagship climate project. It aims to put the European healthcare sector on the path to net zero CO<sub>2</sub> emissions in line with European and international climate commitments.

*Operation Zero* has two key objectives:

1. To produce the most comprehensive overview of the European healthcare sector's carbon footprint to date, highlighting priority carbon hotspots and common opportunities for reduction across the sector.
2. To develop a new framework that can be applied by any national healthcare system that supports the production of national decarbonisation roadmaps to net zero emissions for healthcare, piloted in four European countries.

HCWH Europe is now seeking four national health systems to join *Operation Zero* as pathfinder systems who will take an active role in developing and piloting this new framework by creating national decarbonisation roadmaps for healthcare in their respective countries.

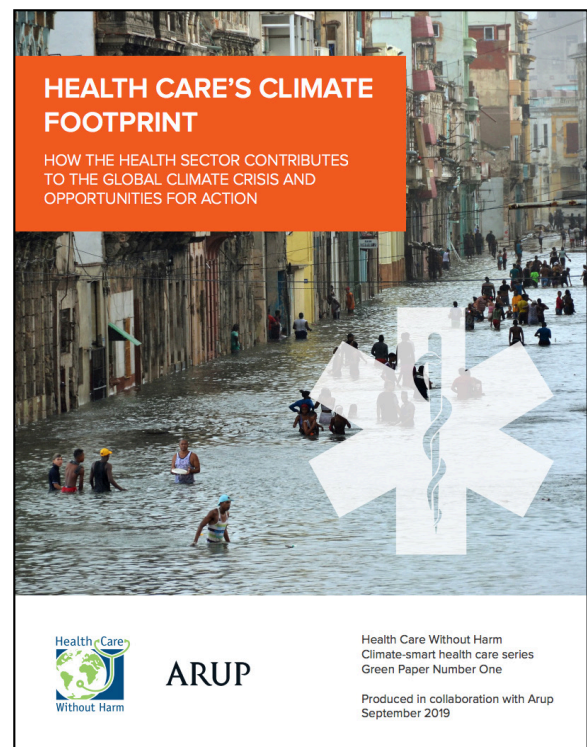
## Rationale

Since the industrial revolution, anthropogenic greenhouse gas (GHG) emissions have risen exponentially. As the largest contributory factor to our changing climate, these gases have serious consequences for both environmental and human health.

Climate change is already having serious impacts on our health.<sup>1</sup> These include temperature-related illness and death, injuries and illnesses due to extreme weather events, the spread of infectious disease vectors, increases in water borne illnesses, and wide-ranging impacts from air pollution.

The healthcare sector is on the frontline for dealing with these health impacts. However, as a major emitter, the sector itself is contributing to the problem. The very organisations that we trust to heal us in our time of need are also playing a role harming us.

In 2019, and in partnership with Arup, Health Care Without Harm (HCWH) published [\*Health Care's Climate Footprint report\*](#) – the most comprehensive estimate of healthcare's global climate footprint. Setting out the healthcare climate footprints of 43 different countries from around the globe, this report highlights the scale of the challenge. As a whole, the healthcare sector's climate footprint is equivalent to 4.4% of global net emissions; if it were a country, it would be the fifth largest emitter in the world. 71% of emissions originate from indirect, Scope 3 sources (e.g. business travel, procurement, waste disposal and water supply/treatment), and it is likely the majority of these emanate from the supply chain. The European Union (EU) is the third largest contributor to global healthcare emissions (behind the US and China), accounting for 12% of global healthcare emissions.



With these challenges comes opportunity. There are opportunities for the sector to lead by example, for health professionals to use their trusted voices to educate on the health impacts of climate change and advocate for change, and for the sector to leverage its

---

1 <https://www.euro.who.int/en/health-topics/environment-and-health/Climate-change>

purchasing power (10% of GDP in Europe)<sup>2</sup> to influence changes within the supply chain.

*Health Care's Climate Footprint* described the problem - *Operation Zero* aims to provide the solution.

## A global context

HCWH is currently developing a global route map for the decarbonisation of healthcare. Ultimately, this aims to set a global trajectory for the sector to reach net zero emissions within a timeframe that is compatible with the Paris Agreement.

The Route Map will utilise the World Input-Output Database (WIOD) to generate emissions reduction pathways for 43 countries plus the 'rest of the world' (a category for remaining countries not covered individually by the WIOD), which will be aggregated and presented under specific typologies. Data sheets will be presented for each country within the database and six countries will be selected, as representative examples of their typologies, for more detailed analysis, providing examples of national decarbonisation pathways.

HCWH has partnered with multidisciplinary consulting firm Arup to deliver this project. To guide it, we have established a Technical Advisory Group, comprising several global representatives, including the World Health Organisation. Final publication of the Route Map is expected in early 2021.

## The Operation Zero Project

The Global Route Map will present a global perspective to decarbonise the healthcare sector. It will not present detailed decarbonisation pathways for individual countries, and whilst six countries will be selected for a deeper analysis, the analysis will still be relatively high level and will be for example purposes only.

---

2 [https://noharm-europe.org/sites/default/files/documents-files/2646/Low%20Carbon%20Buildings%20in%20the%20Healthcare%20Sector\\_Report\\_FINAL.pdf](https://noharm-europe.org/sites/default/files/documents-files/2646/Low%20Carbon%20Buildings%20in%20the%20Healthcare%20Sector_Report_FINAL.pdf)

In Europe, we aim to take this global perspective a step further by developing something that is more tangible and actionable at a national level and provides healthcare facilities with the direction and support required to take action on the ground. It is our vision that *every* European country develops a national decarbonisation plan for its healthcare sector, that charts a 'Paris compatible' course to net zero emissions. To do this, we have launched the *Operation Zero* project. Split into two work packages (WPs), this aims to establish:

### **1. *European Technical Analysis (WP1)***

HCWH will work with Arup to produce a technical analysis for the European healthcare sector. The aim of this analysis is to provide an overview of healthcare emissions in Europe including potential hotspots to prioritise at a Europe-wide level, and set out some common actions that can be taken to reduce emissions.

Specific outputs are yet to be determined but, as a minimum, this paper would provide a breakdown of emissions by country and scope, a target date for European healthcare emissions to become net zero (to comply with the Paris Agreement), and a summary of recommended actions to take in reducing emissions.

- **Output 1.1:** Publish technical analysis paper, summarising European healthcare emissions, and outlining common actions that can be taken to reduce these.

### **2. *A framework document and four national healthcare decarbonisation roadmaps (WP2)***

HCWH will work with Arup to develop a framework that will guide/support national governments/health systems and other organisations in developing a roadmap for the decarbonisation of their own healthcare system, while supporting system resilience and improving health outcomes. Whilst details are still under development, this framework might stipulate how a government can incorporate and utilise different economic

datasets (e.g. WIOD), supplement these with consumption-based datasets, and conduct relevant analysis to identify carbon hotspots and mitigation opportunities.

HCWH will partner with **four national health ministries/health systems** to pilot this framework, supporting participants to generate their own detailed climate footprint analysis and decarbonisation roadmaps. Through these pilots, we will gain valuable feedback into the practicalities and limitations of developing national and/or subnational decarbonisation roadmaps, and plans that will help to build a more robust framework and ultimately drive action.

It is important to highlight that the activities highlighted above are not necessarily iterative. To ensure the development of a robust framework, it is vital for pilot countries to be fully engaged in its development and that there is a constant feedback loop to drive improvements.

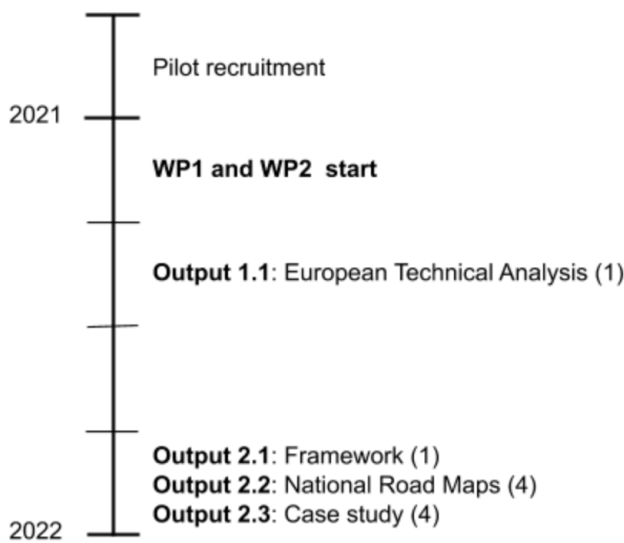
The aim of this WP is to develop a framework that can be applied in any country. In recruiting pilot countries, HWCW will target countries with differing healthcare models to demonstrate a broad applicability. Some additional criteria would include geography, where countries are in their climate journey and their level of interest in the links between climate and health.

- **Output 2.1:** Publish a framework document, detailing a common methodology for measuring the national climate footprint and developing a national-level roadmap for the decarbonisation of healthcare.
- **Output 2.2:** Publish four national-level pilot study footprints and roadmaps for the decarbonisation of healthcare in four European countries.
- **Output 2.3:** Publish four case studies demonstrating the implementation of the framework in pilot countries.

## Target audience

The outputs of Operation Zero are primarily aimed at national health/environment ministries and health systems. In some instances it may also be relevant to civil society groups with access to national/government data, such as think tanks, hospital coalitions, or NGOs.

## Indicative project timeline



## What is our offer to you?

Becoming a pathfinder health system within *Operation Zero* offers the following benefits:

- The opportunity to receive direct support from HCWH Europe in developing a decarbonisation roadmap for your national healthcare system, which will enable you to drive emissions reductions in line with national and international commitments
- An opportunity to directly influence the development of a common framework that can be utilised by any country in the world
- A first-mover advantage and the opportunity to be recognised as a world leader in

healthcare decarbonisation

- An opportunity to recognise and strengthen the links between climate change and health in your country
- An opportunity to contribute to and support the delivery of your country's [National Energy and Climate Plan](#) (for EU countries only) and/or Nationally Determined Contributions
- An opportunity to demonstrate activity and progress under the 2017 [Ostrava Declaration](#) on Environment and Health

## What commitment is required?

Whilst you would receive hands-on support from HCWH Europe staff and partners, we are asking pathfinder systems joining *Operation Zero* to make the following commitments:

- Make a formal commitment to working towards net zero emissions from healthcare, and to implementing the necessary support measures (e.g. funding, policies, etc.) to achieve this
- Provide a formal letter of support to HCWH Europe, confirming your intentions to participate in the project
- Contribute both policy and technical staff to the project team
- Have an understanding of and access to national-level climate and health data that will facilitate the effective development of a robust roadmap for your country
- Sign a Memorandum of Understanding with HCWH Europe, formalising your commitment to the project
- Promote the [Global Green and Healthy Hospitals](#) network and the [Health Care Climate Challenge](#) as a means of supporting health organisations in your country to progress their own decarbonisation trajectories



In addition to the above general requirements, you will be required to engage throughout the development and delivery of the project. This will include:

- Attending regular project team meetings
- Actively contributing to project work, including team meetings
- Attending and participating in sectoral consultation events

### Next steps

If you are interested in joining *Operation Zero* as a pilot country, please contact Scott Brady ([scott.brady@hcwh.org](mailto:scott.brady@hcwh.org)), Climate Programme Manager, HCWH Europe.



# APPENDIX A

## **About HCWH Europe**

HCWH Europe is a non-profit network of European hospitals and healthcare providers, healthcare systems, local authorities, research/academic institutions and environmental and health organisations. We currently have 151 members in 33 countries.

HCWH Europe's mission is to transform the European healthcare sector so that it reduces its environmental footprint, becomes a community anchor for sustainability, and a leader in the global movement for environmental health and justice.

Through our four interconnected programme areas of Climate-smart Healthcare, Circular Healthcare, Sustainable Food, and Safer Pharma we work with members, partners, and other stakeholders to pilot and innovate sustainable healthcare solutions which can then be scaled up across Europe and beyond.

## **Our Climate-smart Healthcare Programme**

Our Climate-smart Healthcare programme has an exciting and ambitious programme of work. Our far-reaching activities include working with strategic partners to influence EU policy, supporting national governments in developing healthcare decarbonisation roadmaps, working with hospitals to improve their carbon management and resilience practices, and mobilising healthcare professionals to use their trusted voice to drive change.

Our vision is to transform European healthcare into a low-carbon and climate resilient sector that protects public health from climate change and accelerates the transition to a low-carbon economy. To achieve this, the programme is build on three key pillars:

- 1. Mitigation:** Decarbonise healthcare’s energy consumption, operations and supply chain, reducing its climate footprint in alignment with the ambition of the Paris Agreement.
- 2. Resilience:** Build health systems and facilities to withstand the impacts of climate change while deploying climate-smart healthcare as an anchor strategy to achieve more equitable access to care, resulting in healthy, resilient communities.
- 3. Leadership:** Accelerate the transition to a low-carbon economy by activating healthcare as a climate policy advocate, leveraging healthcare’s purchasing power to hasten societal decarbonisation, and mobilising healthcare institutions and their employees as trusted climate communicators.



HCWH Europe  
Rue de la Pépinière 1,  
1000 Brussels, Belgium  
E. [europe@hcwh.org](mailto:europe@hcwh.org)  
T. +32 2503 4911  
📧 @HCWHEurope 📘 HCWHEurope

[www.noharm-europe.org](http://www.noharm-europe.org)