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6th CAREC Working Group on Health Pre-meeting

Addressing Climate Change and Health to Enhance Regional Health Security

2 April 2025 | Virtual



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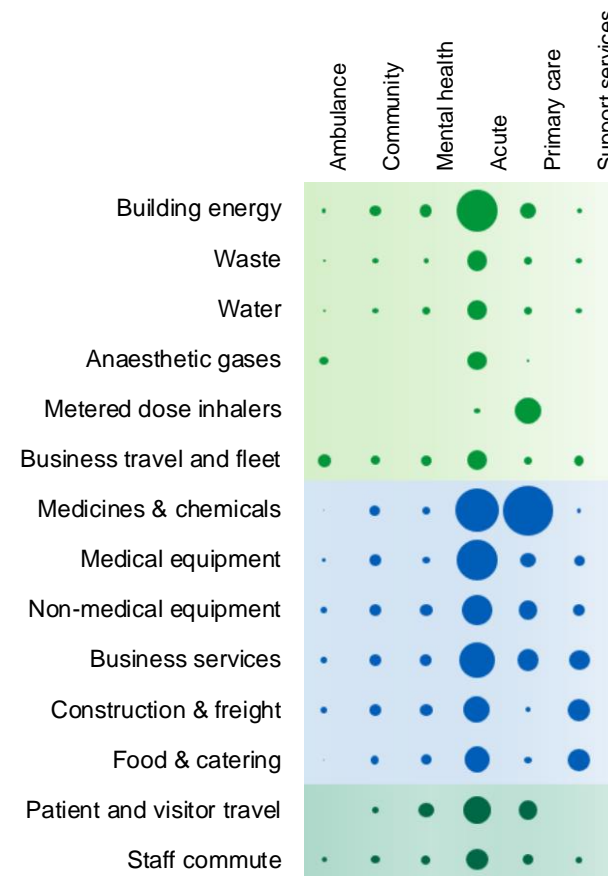
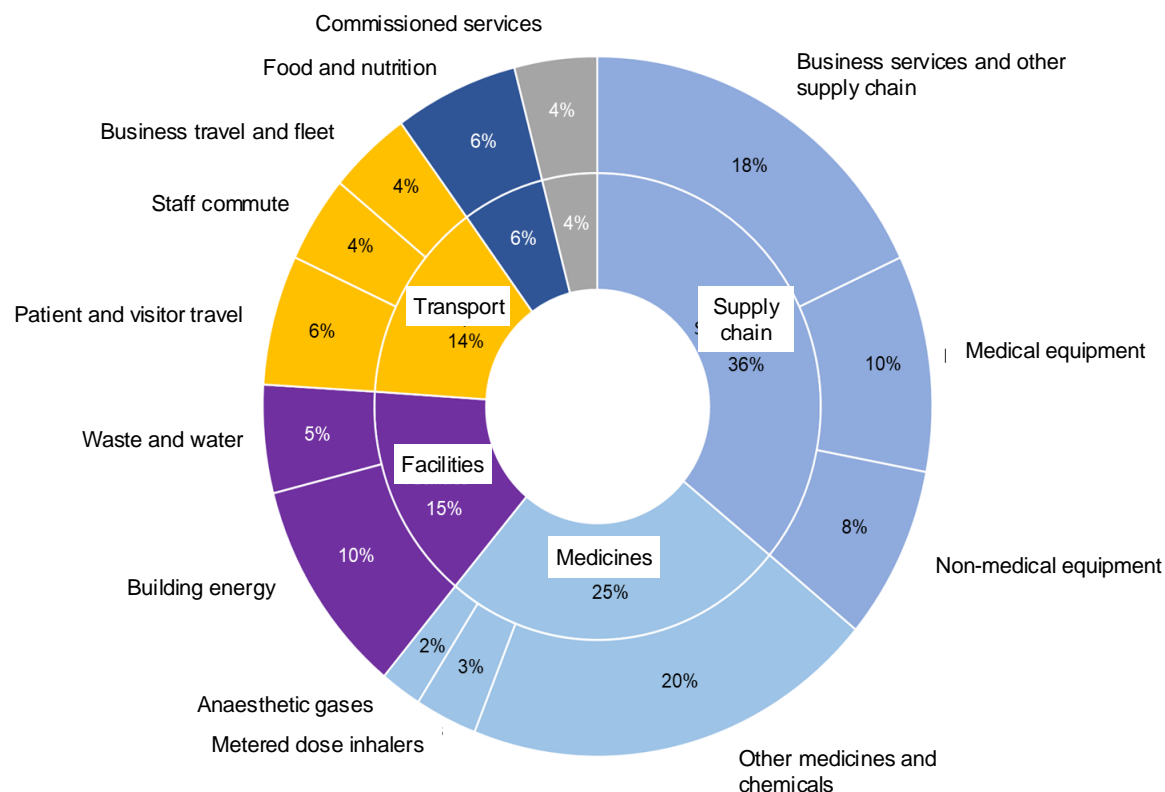
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Decarbonizing health systems in the CAREC region

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Healthcare accounts for 5-8% of global carbon emissions



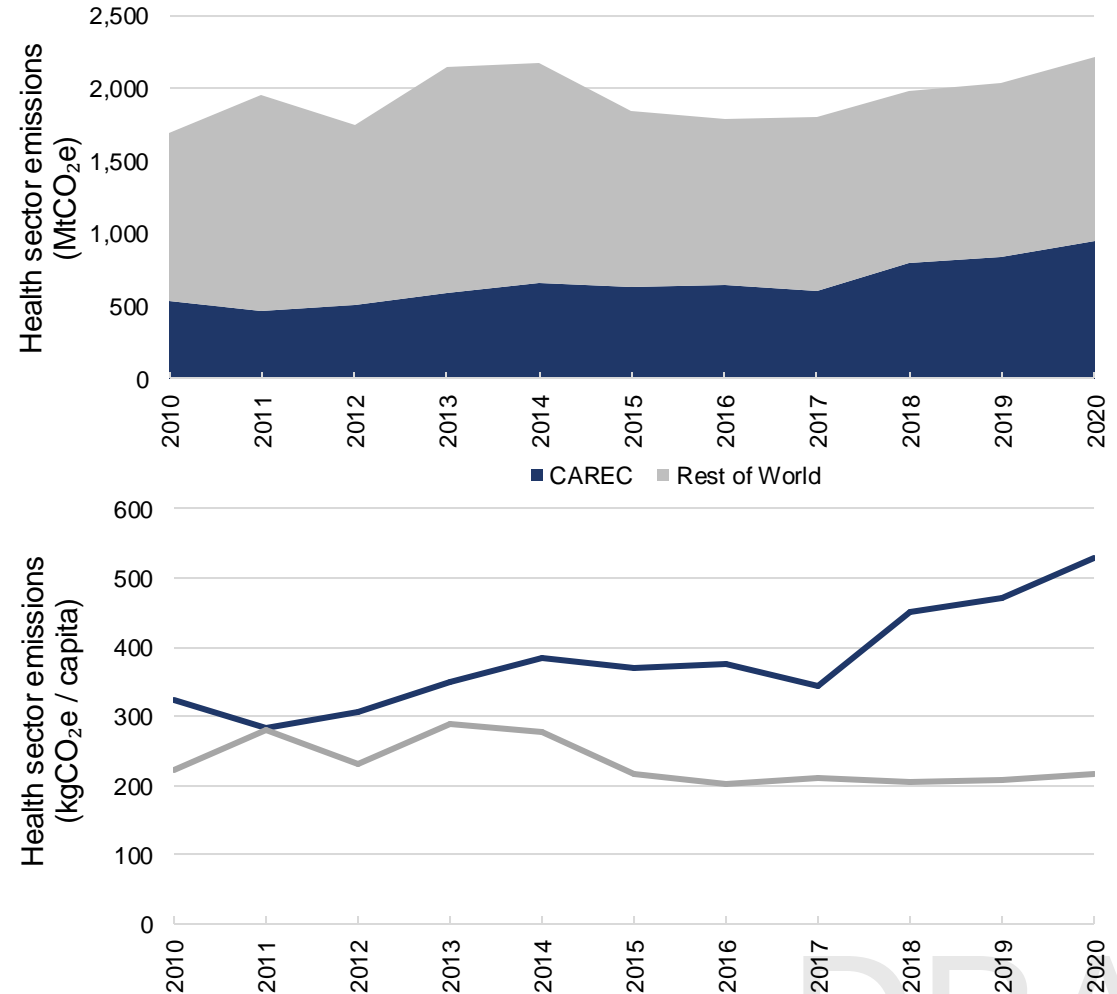
Sources: NHS England *Delivering a Net Zero NHS*

CAREC – a growing contributor to global health emissions

2 billion people
18% of global GDP

Opportunity to reduce
over **40%** of
global **health sector**
emissions

\$95b – 125b
Potential value of **economic**
opportunity from healthcare
sustainability in 2030 in CAREC



Sources: IMF World Economic Outlook, The 2024 report of the *Lancet* Countdown on health and climate change, [McKinsey \(2022\)](#)

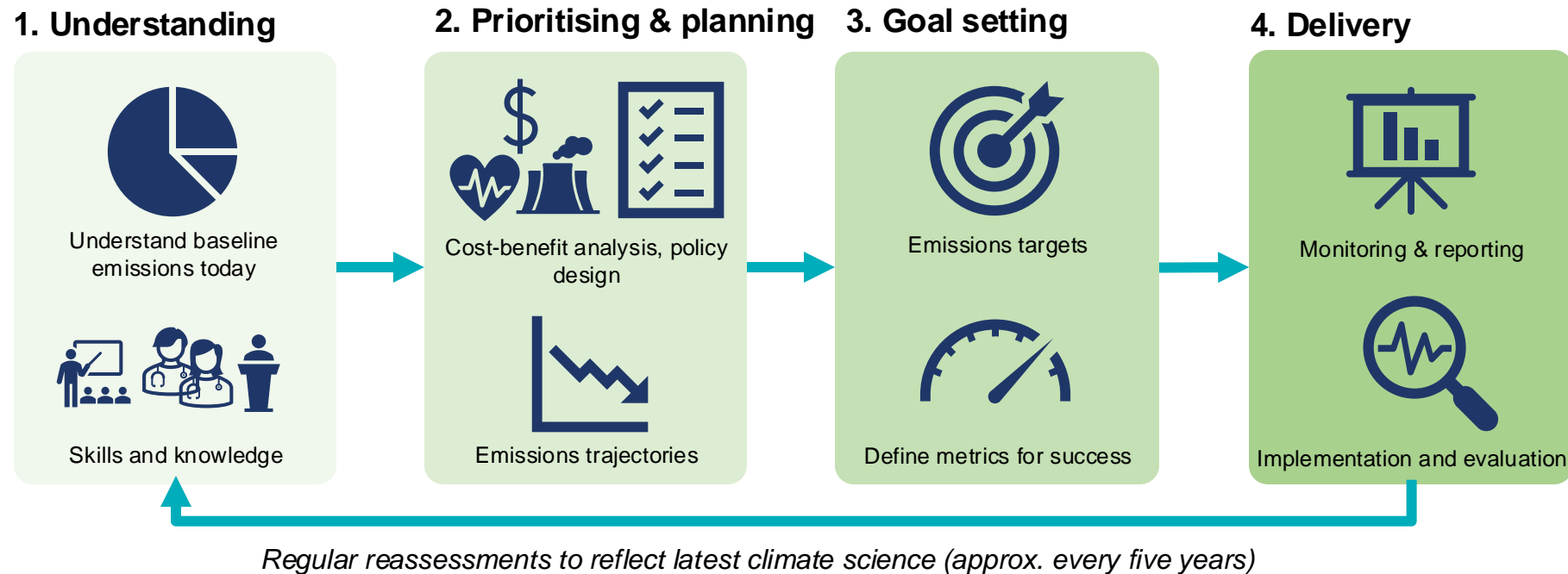
Source: The 2024 report of the *Lancet* Countdown on health and climate change

An evidence base and skills to support long-term system transformation

Effective greenhouse gas measurement is about more than just reporting on emissions.

An effective strategy for emissions measurement will:

- define the current scale of the problem;
- enable evidence-based target-setting and policy planning;
- provide a basis to monitor and report progress over time;
- develop the skills and understanding to implement and embed emissions measurement in health systems.



Evidence base and skills: proposed approach

A two-year project could provide CAREC members with the analytical tools needed to develop sustainable health systems in the region:



Deliverable:	1 – Emissions Baseline	2 – Decarbonisation Roadmap				3 – Decarbonisation Action Plan
Key step:	1. Baseline emissions inventory	2. Derive target trajectory	3. Produce BAU projection	4. "No-regrets" mitigation options	5. Decarbonisation roadmap	6. Action plan
Output:	Comprehensive assessment of scope 1, 2, and 3 emissions associated with health sector's activities and supply-chain.	Target trajectory for emissions reduction based on national targets and policies.	A business-as-usual projection of emissions, factoring in growth of the health sector and the decarbonisation of the wider economy.	Identification of key mitigation actions and estimation of emissions reductions associated with each.	Combined visualisation of BAU projection, target trajectory and projected emissions reductions from mitigation options identified in step 4.	High-level summary of suggested actions and next steps to implement decarbonisation actions.
Outcomes:	<ul style="list-style-type: none">Quantification of sector-wide emissionsUnderstanding of emissions hotspots	<ul style="list-style-type: none">Definition of emissions reduction goalExploration of future emissions trends for the sector without climate action being takenList of potential decarbonisation actions and the scale of opportunity offered by eachAnalysis of major opportunities and prioritisation of decarbonisation measures				<ul style="list-style-type: none">Strategies to deliver decarbonisation action

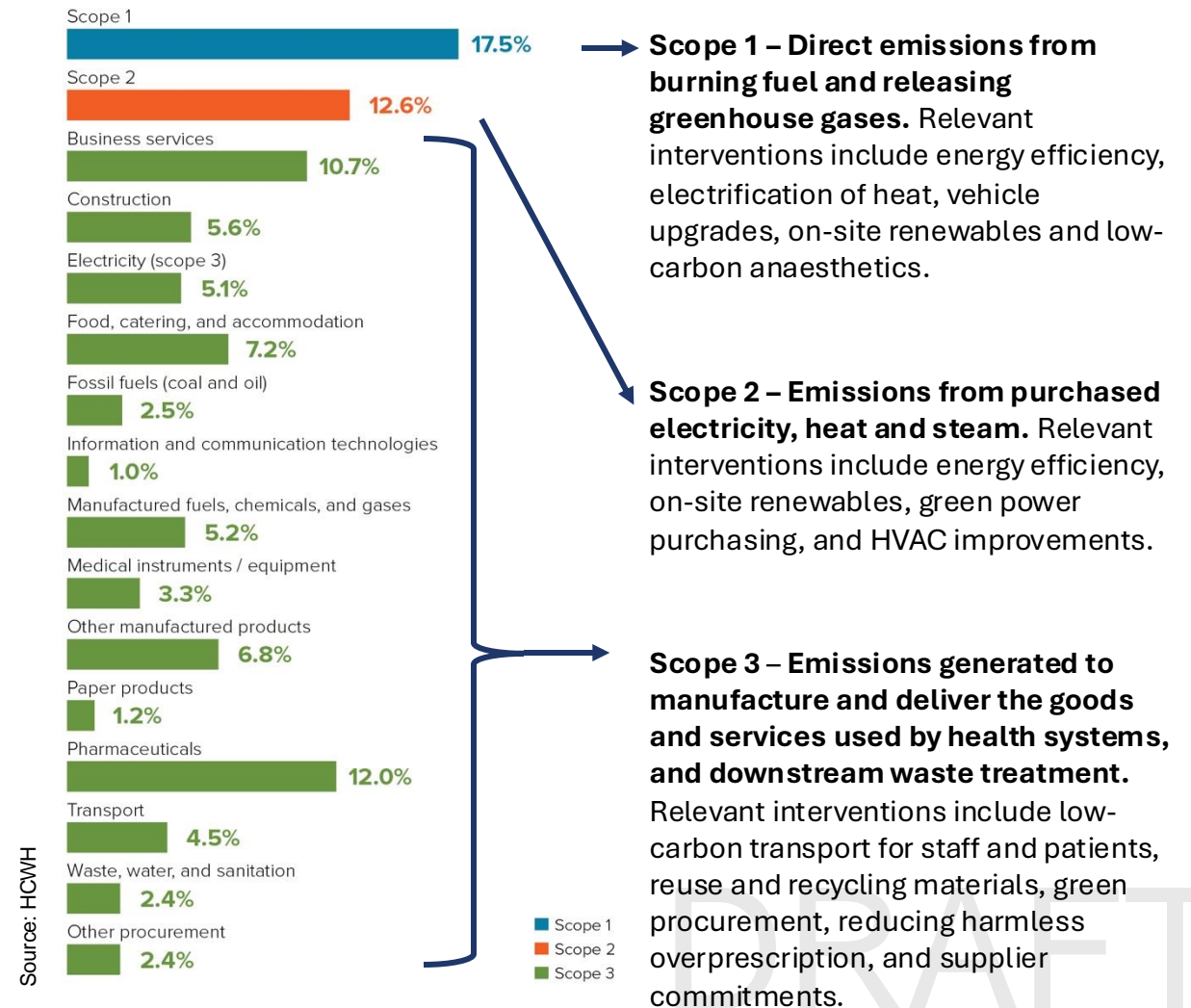
1. Baseline emissions footprint

Emissions baselines provide a detailed understanding of the scale of current health sector emissions in the national or regional context. This will enable the identification of current emissions hotspots and near-term decarbonisation priorities.

The Baseline Emissions Footprint will provide the basis for subsequent deliverables; providing an input to the modelling conducted when developing a Decarbonisation Roadmap and informing on current hotspots to be addressed as part of the Decarbonisation Action Plan.



An assessment of national-level sector emissions reflecting the nature and magnitude of key emissions sources.



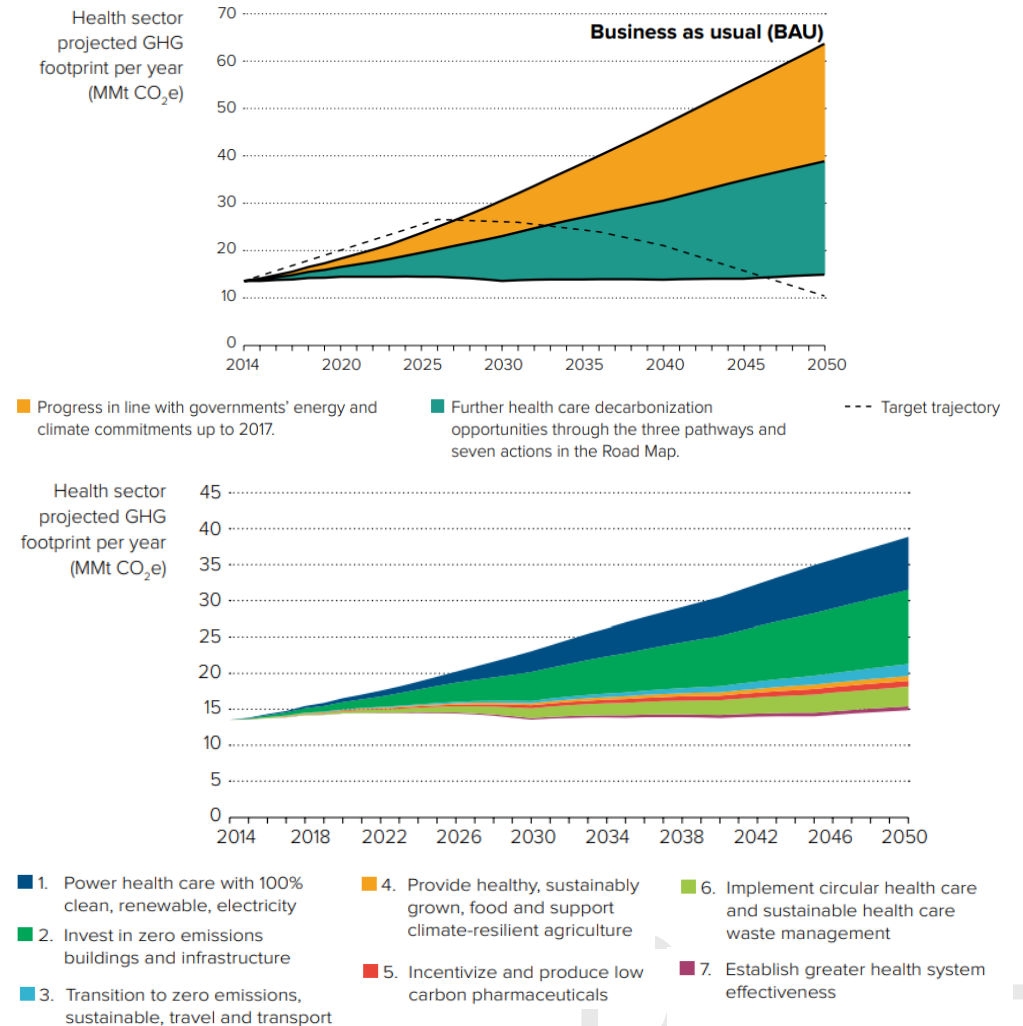
2. Decarbonisation Roadmap

Projections explore future trends in health sector emissions in the national or regional context. This can include a Business-as-Usual (BAU) projection for sectoral emissions alongside a target reduction trajectory.

The scale of opportunity of a suite of decarbonisation interventions shall be presented within this roadmap based on analysis within the scenario analysis model. Results of interventions shall be presented and discussed through recommendations to the national or regional health system as part of a roadmap to a decarbonised health system.



An assessment and illustration of resulting emissions reductions from various decarbonisation interventions.



2. Decarbonisation Roadmap

“No regrets” actions are beneficial even in the absence of climate change with immediate benefits and proven effectiveness in multiple real-world contexts.

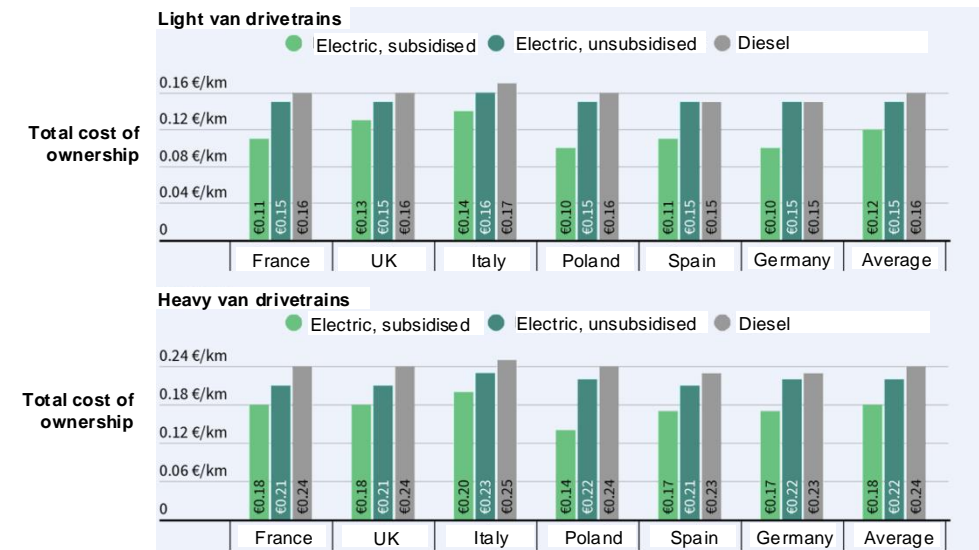
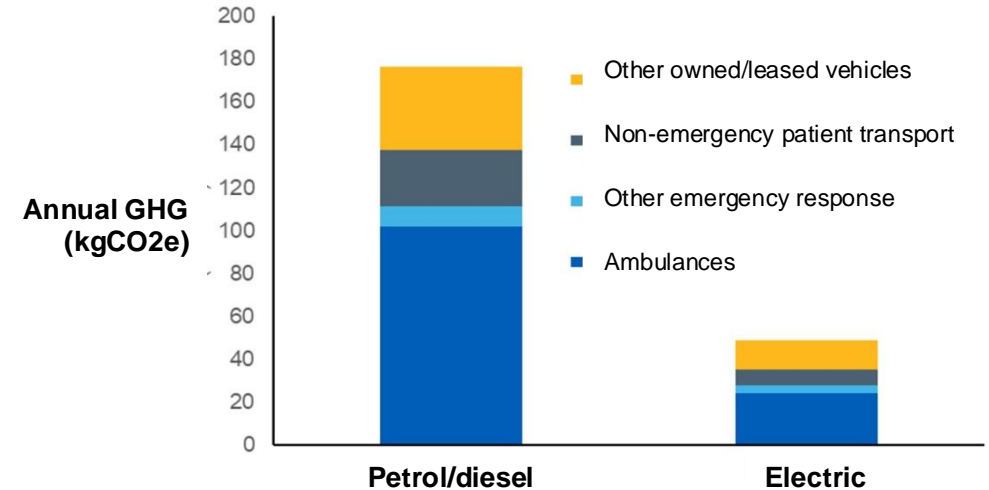
Key decarbonisation actions and estimation of emissions reductions associated with each of these actions are key to understanding how the health sector can progress towards its targets identified in the trajectory and projections.

Each of the mitigation actions identified will be modelled against the BAU scenario developed to illustrate how each action will affect the overall footprint and decarbonisation trajectory.



A list of potential decarbonisation actions and the scale of opportunity offered by each to reduce emissions

Electric drivetrains emit far less carbon for all vehicles, and are rapidly becoming more cost effective than diesel










3. Decarbonisation action plans

This deliverable will present recommended actions for the national or regional health system to begin implementing measures in line with the findings of the Decarbonisation Roadmap.

This work will supplement the Baseline Emissions Footprint and Decarbonisation Roadmap, identifying the short- and medium-term actions that can be taken to address emissions hotspots and pave the way for deep sectoral decarbonisation.



A high-level summary of suggested actions and next steps to implement decarbonisation measures.

Action	SPA categories	Cumulative emissions savings by 2050 (Gt CO ₂ e)
 1. Power health care with 100% clean, renewable electricity	<ul style="list-style-type: none"> Scope 2: Purchased electricity including transmission, generation, and upstream supply chains 	12.7
 2. Invest in zero emissions buildings and infrastructure	<ul style="list-style-type: none"> Scope 1: Operation of buildings (including onsite combustion) Construction 	17.8
 3. Transition to zero emissions, sustainable travel, and transport	<ul style="list-style-type: none"> Scope 1: Transport; Scope 3: Travel and transport 	1.6
 4. Provide healthy, sustainably grown food and support climate-resilient agriculture	<ul style="list-style-type: none"> Food, catering, and accommodation 	0.9
 5. Incentivize and produce low-carbon pharmaceuticals	<ul style="list-style-type: none"> Pharmaceuticals 	2.9
 6. Implement circular health care and sustainable health care waste management	<ul style="list-style-type: none"> Manufacture and distribution of fossil fuels Manufactured fuels, chemicals, and gases Plastics Medical Instruments/equipment Other manufactured products Paper products Waste, water, and sanitation Other procurement 	4.8
 7. Establish greater health system effectiveness	<ul style="list-style-type: none"> Business services Information and communication technologies System effectiveness 	4.1
Total emissions saving from high impact actions		44.8

Source: HCWH

An urgent response to climate change means acting in three key areas

Take 'no-regret' actions today

Actions that are **beneficial even in the absence of climate change** with immediate benefits
Proven effectiveness in multiple real-world contexts
Benefits to **patient outcomes** and improved **operational efficiency**
Cost-neutral at worst, often with rapid payback on investment (e.g. LED lighting upgrades)

Skills, capabilities and leadership

Building **understanding of climate resilience and mitigation** at all levels of the health system
Developing **climate leadership** in governments and healthcare organisations
Empowering frontline staff to identify and implement actions
Training the **next generation** of healthcare workers

Evidence base for investment

Identify the **highest priority areas** to address in each individual health system
Demonstrate how an **emissions reduction trajectory** can be achieved
Understand the long-run **investment needs, benefits and health impacts** of system change
Build enable **implementation, monitoring and validation** of progress over time

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Benefits of regional collaboration across CAREC

“A region of Sustainable Development, Shared Prosperity, and Climate Resilience”
- CAREC Climate Change Vision Statement

A co-ordinated approach to health system decarbonization

Joint action to influence shared international supply chains

CAREC as a powerful voice in international health sustainability communities

Health professionals and policymakers learning from best-practice in the region

Comparable and cross-compatible data, targets and policies

Mobilize investments that benefit patients and improve efficiency

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