Global Road Map for Health Care Decarbonization

Key facts (2015)

Health care spending as % of GDP:	**2.3%**	Health care per capita emissions (t CO_2e)[1]:	**0.25**
Health care gross emissions (MMt CO_2e)[1]:	**7.64**	Rank among 68 nations in study, per capita	
Rank among 68 nations in study, gross emissions:	**30**	emissions:	**47**
Health care emissions as % of national total:	**2.0%**		

Topography: Malaysia's health care climate footprint

66% 34%
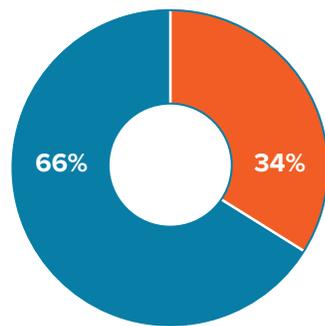
Figure 1: The health sector footprint in 2015, showing Scope 1 (onsite) and the combined footprint from Scope 2 (purchased energy) and Scope 3 emissions. Further granularity of the emissions breakdown was not available in the source data.[1]
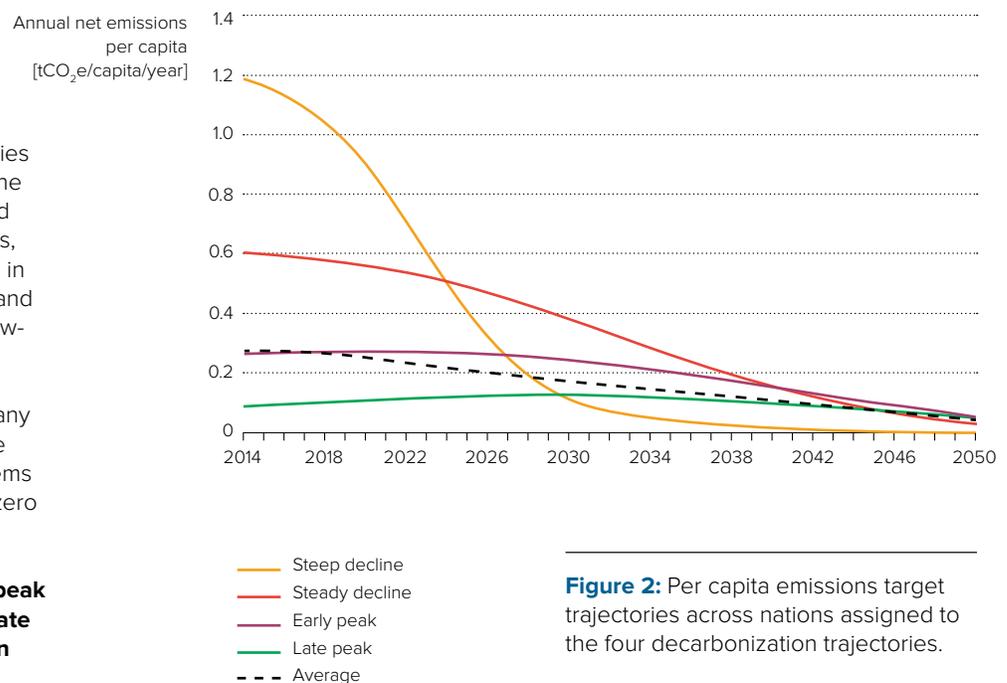
■ Scope 1   ■ Scope 2 and 3

Trajectories: Common but differentiated responsibilities and respective capabilities

The Road Map establishes trajectories that require a steep or steady decline in emissions from the wealthiest and biggest polluting health care sectors, while allowing room for an increase in emissions that peak between now and the end of the present decade in low- and middle-income countries.

Despite the differences, achieving any one of these trajectories will require immediate action by all health systems to begin to change course toward zero emissions.
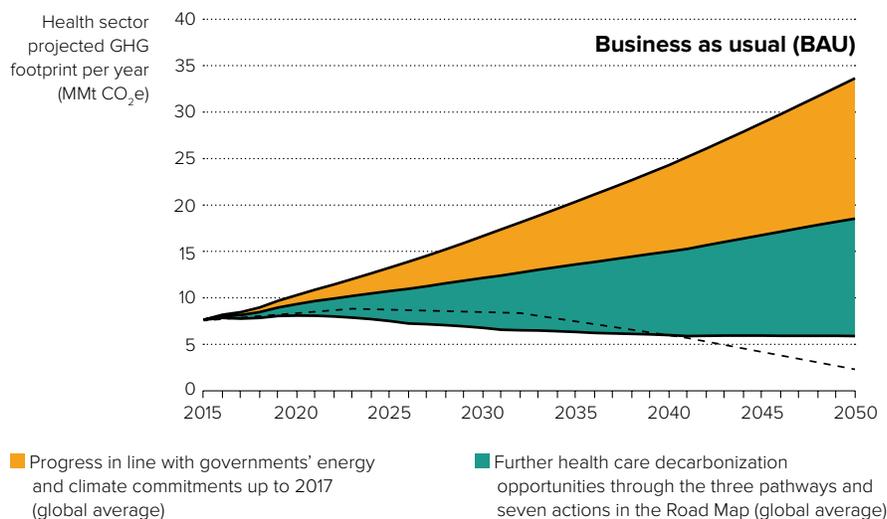
Malaysia is assigned to the early peak trajectory, which requires immediate action to change course and begin implementing decarbonization strategies together with green UHC.

Annual net emissions per capita [tCO$_2$e/capita/year]

— Steep decline
— Steady decline
— Early peak
— Late peak
- - - Average

Figure 2: Per capita emissions target trajectories across nations assigned to the four decarbonization trajectories.

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1   National footprint data for nations not included individually in the WIOD database has been taken from the following study, using the tables provided in the supplementary information: *Lenzen M, Malik A, Li M, et al. (2020) The environmental footprint of health care: a global assessment. The Lancet Planetary Health; 4: e271–79*. For more information on the modelling behind the data in this fact sheet, please refer to the fact sheet guides or the headline report available online: www.healthcareclimateaction.org/roadmap

Charting a course: Decarbonizing Malaysia's national health care sector

Health sector projected GHG footprint per year (MMt CO_2e)

Business as usual (BAU)

■ Progress in line with governments' energy and climate commitments up to 2017 (global average)

■ Further health care decarbonization opportunities through the three pathways and seven actions in the Road Map (global average)

- - - Target trajectory

Figure 3: The national Road Map for health sector emissions reduction. The top line shows forecasted growth in emissions with no further climate action. Overlaid are two estimates for the potential decarbonization of the national health sector, assuming the national health system decarbonizes at a rate in line with the estimated global average, as national data was not available for Malaysia. Also shown is the national target trajectory, based on the trajectories shown in Figure 2.

Acting on emissions: Seven high-impact actions for health care decarbonization

Health sector projected GHG footprint per year (MMtCO_2e)
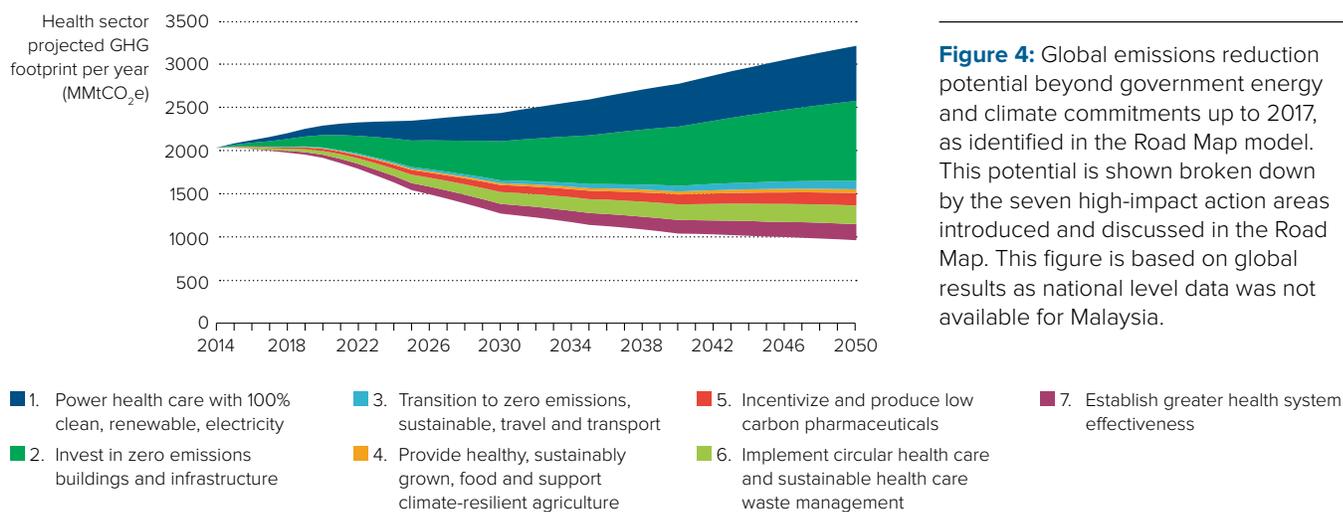
Figure 4: Global emissions reduction potential beyond government energy and climate commitments up to 2017, as identified in the Road Map model. This potential is shown broken down by the seven high-impact action areas introduced and discussed in the Road Map. This figure is based on global results as national level data was not available for Malaysia.

■ 1. Power health care with 100% clean, renewable, electricity

■ 2. Invest in zero emissions buildings and infrastructure

■ 3. Transition to zero emissions, sustainable, travel and transport

■ 4. Provide healthy, sustainably grown, food and support climate-resilient agriculture

■ 5. Incentivize and produce low carbon pharmaceuticals

■ 6. Implement circular health care and sustainable health care waste management

■ 7. Establish greater health system effectiveness

Driving change: Recommendations for achieving zero emissions health care

The following are four high-level recommendations for all nations that can serve as a basis for health care decarbonization.* In addition, each country will need to develop a customized approach that is tailored to its own situation.

1. **Commit to zero emissions health care:** Make a public commitment to achieve net zero, climate resilient health care by 2050 or sooner. Include health care decarbonization in the Nationally Determined Contribution to the Paris Agreement. Establish a baseline, create a national roadmap, develop a detailed action plan, and invest in implementation.

2. **Link zero emissions with health equity and climate resilience:** Align cost-effective, climate-smart health care with achieving the Sustainable Development Goals as well as COVID-19 response and recovery. Implement green UHC, decarbonization, and resilience strategies, like powering health care with onsite renewable energy, in order to improve access to health care delivery while fostering facility, system, and community resilience.

3. **Promote cross-sectoral climate and health action:** Engage with the health care supply chain to foster zero emissions energy, buildings, transport, pharmaceuticals, agriculture, and industry. Incentivize innovation and a circular economy approach. Support the implementation of climate commitments and policies in the wider economy and society that reduce air pollution, protect public health from climate change, and foster health care decarbonization.

4. **Communicate and activate:** Lead by example. Train health professionals as climate leaders and implementers. Mobilize the sector's ethical, economic, and political clout to influence and accelerate climate action in other sectors of society.

For a full set of recommendations and specific actions see Chapters 6 and 7 of the Road Map as well as Appendix 3.

Health Care Without Harm

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