

Global Road Map for Health Care Decarbonization

Key facts (2014)

Health care spending as % of GDP:

Health care gross emissions (MMtCO₂e)^{1,2}:

Rank among 68 nations in study, gross emissions:

Proportion of emissions from domestic economy:

10.8%

Health care emissions as % of national total:

Health care per capita emissions (t CO₂e)¹:

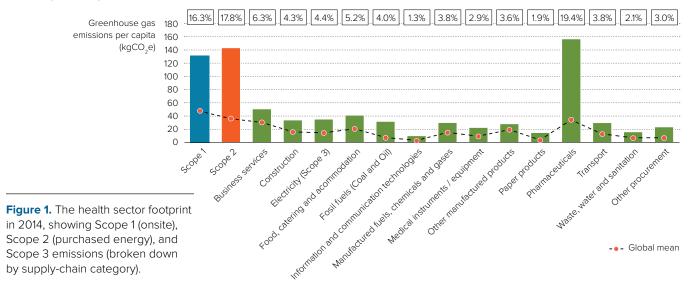
Rank among 68 nations in study, per capita emissions:

9

emissions:

9

Topography: Japan's health care climate footprint

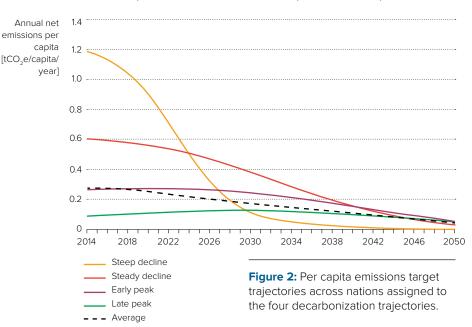


Trajectories: Common but differentiated responsibilities and respective capabilities

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 change course toward zero emissions.

Japan is assigned to the steady decline trajectory, which requires immediate and systematic action to implement a continuous decrease in emissions.



¹ National footprint data is based on modelling performed by HCWH and Arup, using the WIOD input-output database and national health expenditure data for 2014. For more information on this study please see the Road Map report, Annexes, and fact sheet guides available online: healthcareclimateaction.org/roadmap

² A national study based on 2015 data estimated the national footprint at 72.0 (MMtCO2e). Reference: Nansaia K, Fry J, Malik A, Takayanagi W, Kondo N (2019) Carbon footprint of Japanese health care services from 2011 to 2015. Resources, Conservation & Recycling 152 (2020) 104525

Charting a course: Decarbonizing Japan's health care sector

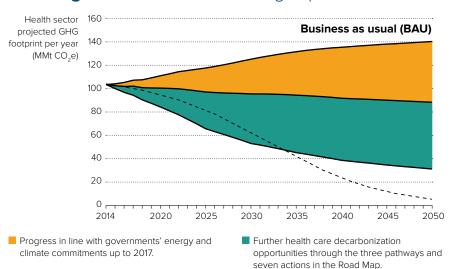


Figure 3: The national Road Map for health sector emissions reduction. The top line shows forecasted growth in emissions with no further climate action. Overlaid are two estimates for the potential decarbonization of Japan's health sector. Also shown is the national target trajectory, based on the trajectories shown in Figure 2.

--- Target trajectory

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

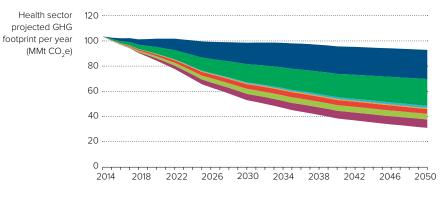


Figure 4: Emissions reduction potential for Japan's health sector beyond government energy and climate commitments up to 2017, as identified in the Road Map model. This potential is shown broken down by the seven high-impact action areas introduced and discussed in the Road Map.

- Power health care with 100% clean, renewable, electricity
- 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.

- 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 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.



