
On the path to a climate-friendly health service

PERSPECTIVES

JANNE STRANDRUD

Janne.strandrud@helsedir.no

Janne Strandrud, senior adviser in the Norwegian Directorate of Health. The author has completed the ICMJE form and declares no conflicts of interest.

SILJE MELSETH

Silje Melsether, senior adviser in the Norwegian Directorate of Health. The author has completed the ICMJE form and declares no conflicts of interest.

DAVID BRASFIELD

David Brasfield, environmental manager at Sunnaas Hospital. Acted as a consultant in the work on the report by the Norwegian Directorate of Health.

The author has completed the ICMJE form and declares no conflicts of interest.

ERLEND TUSETH AASHEIM

Erlend Tuseth Aasheim, head of department in the Norwegian Directorate of Health and associate professor at the Centre for Sustainable Healthcare Education, University of Oslo.

The author has completed the ICMJE form and declares no conflicts of interest.

The Norwegian Directorate of Health has reviewed the greenhouse gas emissions generated by health and care services. The report provides a basis for developing a

roadmap towards a more sustainable health and care sector.

Together with health authorities from approximately 70 countries, Norway has committed to the health programme that was adopted at the UN Climate Change Conference in Glasgow (COP26) in 2021 [\(1, 2\)](#). For Norway, this entails a commitment to the green transition through three specific deliverables: a review of the status of greenhouse gas emissions in the health and care sector, a national analysis of vulnerability and the need for adaptation related to climate change and health, as well as the development of a roadmap that provides direction for a sustainable low-emission health and care sector by 2050.

The Norwegian Directorate of Health recently published a report that provides a status update for greenhouse gas emissions in the health and care sector [\(3\)](#). Together with the Norwegian Institute of Public Health's analysis of vulnerability and the need for adaptation [\(4\)](#), this report forms an important basis for the efforts to develop a roadmap that promotes awareness and mobilisation for climate action in the health sector. The work on the roadmap is led by the Ministry of Health and Care Services and is scheduled to be completed in 2023. Through the commitments associated with the COP26 Health Programme, the health sector has been given a clear mandate to intensify its climate efforts, as described in this article. Based on the report, we will now review the Norwegian Directorate of Health's recommendations for further work in this area.

Estimated greenhouse gas emissions

The Norwegian Directorate of Health's report on greenhouse gas emissions included a rough estimate of total emissions in the specialist health service and primary health and care services. The estimate was calculated based on a standardised framework for quantifying and reporting emissions, known as the Greenhouse Gas Protocol (GHG Protocol) [\(5\)](#). According to this protocol, emissions are divided into three categories (referred to as 'scopes'): direct emissions that the organisation has control over (scope 1), indirect emissions related to energy use (scope 2), and other indirect emissions, such as those from the procurement of goods and services, business travel and waste management (scope 3).

«The specialist health service in Norway has total emissions of 1.3 million tonnes of CO₂ equivalents»

There is already a good national overview of direct emissions and emissions related to energy use (scopes 1 and 2) in the specialist health service [\(6\)](#). However, for the indirect emissions from, for example, the procurement of goods and services (scope 3), no national figures are available yet, but previous estimates within the organisations have shown that these constitute the majority of emissions (64–91 %) [\(3\)](#). A simple calculation demonstrated that

the specialist health service in Norway has total emissions of 1.3 million tonnes of CO₂ equivalents. In comparison, Norway reported total national emissions of 48.9 million tonnes of CO₂ equivalents under the Paris Agreement in 2022 [\(7\)](#).

There is no national dataset for the primary health and care sector, and the availability of data is limited. Through online searches, we identified 22 municipalities with a total of 1.4 million inhabitants that had available data for emissions in health and care services, estimated using the *Klimakost* calculation method [\(8\)](#) for the period 2015–22. By using data on the number of inhabitants or economic consumption in the municipalities, we have estimated that the primary health and care service also has total emissions of around 1.3 million tonnes of CO₂ equivalents.

The estimates in the report are uncertain and are impacted by the assumptions used in the calculations. Nevertheless, the figures demonstrate that the health and care sector accounts for considerable emissions. The report also mentions the central health administration, which has lower emissions than the specialist health service and the primary health and care services but can play an important part as a role model for other actors.

Recommendations from the Norwegian Directorate of Health

In the report, we present three main recommendations for the further work on reducing emissions in the health and care sector.

Improving the data

The first recommendation is about improving and further developing the raw data for measuring emissions in the sector. There is still a lot of important work to be done here. This includes obtaining accurate data for indirect emissions and establishing relevant indicators. We need better data to establish baselines, model forecasts for future emissions and measure the effectiveness of interventions.

«We need better data to establish baseline values, model forecasts for future emissions and measure the effectiveness of interventions»

Furthermore, emission data presented in an accessible format can be more easily utilised as a management tool by national health authorities, health institutions and local authorities. Therefore, with the assistance of student interns from Deloitte, the Norwegian Directorate of Health and South-Eastern Norway Regional Health Authority developed a visualisation tool (dashboard) to illustrate emissions from various sources, broken down into hospitals and healthcare institutions [\(9\)](#). South-Eastern Norway Regional Health Authority has further developed the concept into a publicly available interactive tool that shows target achievement in healthcare institutions [\(10\)](#).

Common direction for the sector

Our second main recommendation is to establish a common direction and agree on focus areas for reducing greenhouse gas emissions in the health sector. In the report, we highlight areas where measures to reduce emissions can either be strengthened or where there is a need to implement new measures. Examples of this relate to buildings, energy use and transportation – both patient travel and employee transport. An increasing number of healthcare institutions are concerned with reducing food waste, and the procurement of food can be steered in a more climate-friendly and sustainable direction. By reducing overtreatment and overdiagnosis whilst also improving patient safety, the overall consumption of materials and resources can be reduced. These are some of the areas where targeted measures will help to reduce greenhouse gas emissions.

«By reducing overtreatment and overdiagnosis whilst also improving patient safety, the overall consumption of materials and resources can be reduced»

Further development of these focus areas must be addressed through dialogue between the health services and other relevant stakeholders during the development of the roadmap. The Ministry of Health and Care Services has indicated its desire for broad and inclusive processes.

Competence and cooperation

Our third main recommendation is to work systematically on enhancing competence, disseminating knowledge and promoting dialogue and cooperation on climate change and health within and around the sector. Many actors can make important contributions to this effort, including service managers, professional associations, educational and research institutions, and patient and service user organisations, to name a few. Both undergraduate and postgraduate education programmes should more comprehensively cover the climate perspective and the challenges we will face. We must strengthen cross-sector cooperation in order to successfully implement the necessary changes. Notably, we see that health and climate policies have areas of focus that promote both climate and health goals – for example, the recommendations to follow national dietary guidelines and increase the proportion of people cycling and walking instead of driving [\(11\)](#).

The road ahead

In order to achieve the emission reduction targets, major rapid changes are needed – in a time when the health sector is also facing other challenges. If we are to successfully reduce emissions, we need a stronger focus, faster pace, better implementation, more cooperation and a more systematic effort than what we have today. In the process of writing this report, we at the Norwegian

Directorate of Health have experienced that compiling a comprehensive overview of greenhouse gas emissions in the health and care service requires a large effort and considerable knowledge-gathering.

The Ministry of Health and Care Services is now taking the initial steps to create a roadmap for the green transition in the health sector. The roadmap will serve as a framework for the journey towards a sustainable, low-emission health and care sector. We anticipate that the roadmap will point to specific measures and hold key stakeholders accountable as well as all of us who will initiate and execute this work.

Through the health programme established at COP26, the health and care sector has been given an even clearer mandate for its climate efforts. The work must also be seen in conjunction with green transition efforts in other sectors and across administrative levels. The Norwegian Directorate of Health is working to enhance its own efforts in this area. However, to limit emissions and achieve climate-robust development in Norway, we need coordinated and cross-sector efforts from the public, private and voluntary sectors. There is no alternative other than to roll up our sleeves and solve this together.

REFERENCES

1. UN Climate Change Conference UK 2021. The COP26 Health Programme. <https://webarchive.nationalarchives.gov.uk/ukgwa/20230401054904/https://ukcop26.org/the-cop26-health-programme/> Accessed 2.5.2023.
2. Helse- og omsorgsdepartementet. Norge lanserer klimaforpliktelser på helsefeltet. <https://www.regjeringen.no/no/aktuelt/norgelanserer-klimaforpliktelser-pa-helsefeltet/id2885909/> Accessed 3.7.2023.
3. Helsedirektoratet. Klimagassutslipp fra helse- og omsorgssektoren. <https://www.helsedirektoratet.no/rapporter/klimagassutslipp-fra-helse-og-omsorgssektoren> Accessed 15.5.2023.
4. Folkehelseinstituttet. Klimaendringer: Sårbarhet og tilpasningsbehov i helse- og omsorgssektoren i Norge. Rapport 2023. <https://www.fhi.no/publ/2023/klimaendringer---sarbarhet-og-tilpasningsbehov-i-helse--og-omsorgssektoren/> Accessed 9.8.2023.
5. Miljødirektoratet. Klimagassregnskap for Norge. <https://www.miljodirektoratet.no/ansvarsomrader/klima/klimagasserutslippstall-regnskap/klimagassregnskap/> Accessed 11.5.2023.
6. Helse Sør-Øst. Ny rapport om spesialisthelsetjenestens samfunnsansvar. <https://helse-sorost.no/nyheter/ny-rapport-omspesialisthelsetjenestens-samfunnsansvar> Accessed 23.5.2023.
7. Storbråten B. Liten nedgang i utslipp av klimagasser i 2022. SSB 8.6.2023. <https://www.ssb.no/natur-og-miljo/forurensning-ogklima/statistikk/utslipp-til-luft/artikler/liten-nedgang-i-utslipp-av-klimagasser-i-2022> Accessed 9.8.2023.

8. Klimakost. www.klimakost.no Accessed 3.7.2023.
 9. Helsedirektoratet. Klimaregnskap i spesialisthelsetjenesten – innsiktsdokument. <https://www.helsedirektoratet.no/rapporter/klimaregnskap-i-spesialisthelsetjenesten-innsiktsdokument> Accessed 23.5.2023.
 10. Grønt sykehus. Spesialisthelsetjenestens klima- og miljømål 2030. <https://app.powerbi.com/view?r=eyJrIjoiaNTAzNjYxYzQtZjJhNSooNWMyLWZjQTMjQwNDgyMTJmYWYzIiwidCI6IjdmOGUoY2YwLTcxZmItNDg5Yy1hMzM2LTNmOTI1MmE2MzkwOCIsImMiOjh9&pageName=ReportSection3d46476dc98c4cc1a972> Accessed 23.5.2023.
 11. Miljødirektoratet. Klimatiltak i Norge mot 2030: Oppdatert kunnskapsgrunnlag om utslippspotensial, barrierer og mulige virkemidler – 2023. <https://www.miljodirektoratet.no/publikasjoner/2023/juni-2023/klimatiltak-i-norge-mot-2030/> Accessed 2.6.2023.
-

Publisert: 12 September 2023. Tidsskr Nor Legeforen. DOI: 10.4045/tidsskr.23.0381

Received 24.5.2023, first revision submitted 4.7.2023, accepted 9.8.2023.

Copyright: © Tidsskriftet 2026 Downloaded from tidsskriftet.no 9 February 2026.