

Using environmental impact data to support health technology assessment at NICE: an options appraisal

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Background

Environmental harm has a negative effect on human health. Climate change affects essential determinants of health (e.g., clean air and water), while extreme weather events cause direct harm and limit healthcare provision. The healthcare sector itself is a major contributor to environmental harm; in the UK, the National Health Service (NHS) is estimated to cause 5.4% of greenhouse gas emissions¹.

To address this, the NHS in England aims to be carbon neutral by 2045². As a key part of the pathway to approving and accessing new interventions, HTA organisations like NICE may be able to play an important role to support system sustainability objectives.

What we did and why

As part of the NHS England’s ‘net zero’ ambition, it has established a Supplier Roadmap³ that sets out increasing environmental requirements for companies to be eligible to supply the NHS. Companies are already required to collect company-level environmental impact information, and by 2028, they will be expected to provide carbon footprint data for their individual products.

We conducted an options appraisal to examine if and how NICE might use environmental impact data about medicines, health technologies and their suppliers. We identified key internal NICE teams and external stakeholders whose views we sought about the acceptability and feasibility of the potential ways NICE might use such data. The findings would supplement our pre-existing understanding about the intersection between sustainability and HTA^{4,5}.

In autumn 2023, we held workshops with the identified groups to (1) briefly upskill participants in sustainable healthcare concepts and (2) lead open discussions about the array of hypothetical options for NICE. We welcomed all feedback (positive and negative) and encouraged alternative suggestions.

Findings from the workshops with internal NICE teams were used to exclude potential ways for NICE to use environmental impact data that were considered infeasible. The set of options was then further refined based on discussions with the NHS, commissioners and industry. Findings were synthesised narratively to identify a set of potentially feasible options that could be explored further before 2028.

Outcomes and impact

The following options were identified for further consideration:

1. Republish or cite company-level environmental impact data about NICE’s industry stakeholders, such as their carbon reduction plans. This would raise awareness of system sustainability efforts among stakeholders and signal the growing important of environmental impact data to NICE.
 2. Examine whether there are groups of highly interchangeable competing products, with no differences in cost or health outcomes, which could be pragmatically compared based on their environmental impacts.
 3. Seek to understand whether NHS commissioners would value having a supportive tool to estimate the local environmental impact of implementing NICE recommendations.
 4. Engage with industry to support shared learning and continued upskilling in this area.

As at November 2024, we are pursuing option 1 (in progress). We have also begun exploratory scoping work for option 2 via the NICE Innovational Laboratory (‘HTA Lab’). This will consider what such an environmental impact evaluation would look like, including data requirements.

What we learnt

Consistent with our prior understanding, we heard that the necessary data and methodological standards for estimating and comparing product-level environmental impacts are not yet mature enough to be used in all NICE decision making.

Republishing existing company-level impact data was considered likely to pose limited burden on NICE’s resources. But it could have a disproportionately positive effect by raising awareness of industry’s environmental commitments and signalling the importance of sustainability to NICE.

- We perceive 3 main attractions to comparing interchangeable technologies based on their environmental impacts:
- + If products are true like-for-like substitutes, this could help define a reasonable pragmatic time horizon for the environmental impact assessment. For example, if there are no differences in how the products are delivered to the people who receive them, the comparison could focus on how they are manufactured and disposed of.
 - + Recommendations favouring products with less environmental impact would have no effect on direct health outcomes, patient access or costs.
 - + We anticipate that products satisfying the criteria of being highly competitive, interchangeable interventions are likely to be used in high volumes across the NHS. Shifting use towards those with less environmental impact may therefore have a considerable positive effect on system sustainability.

1. Health care without harm (2019). <https://noharm-global.org/documents/health-care-climate-footprint-report>

2. <https://www.england.nhs.uk/greenernhs/a-net-zero-nhs/> -

3. <https://www.england.nhs.uk/greenernhs/get-involved/suppliers/>

4. Toolan et al. (2023). DOI: [10.1017/S0266462323000041](https://doi.org/10.1017/S0266462323000041)

5. Walpole et al. (2023). DOI: [10.1080/14737167.2023.2248389](https://doi.org/10.1080/14737167.2023.2248389)