Are Clinicians Ready For A More Environmental-friendly Health Care? A Clinician Survey

HSD119

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Introduction

- Health care's environmental impact exceeds that of the airline industry,[1] prompting growing interest in addressing this issue within the industry and HTA bodies.
- Considering environmental impact often involves trade-offs, despite assertions to the contrary.
- To promote sustainability in medical practice, it's essential to shape clinical practitioners' attitudes and build consensus on acceptable trade-offs.

Objectives

- **To identify examples for how environmental sustainability has influenced clinical practices to date and to understand expectations for its future impact.**
- **To test attitudes towards considering sustainability in healthcare decisions and to measure conceptual acceptance of trading off efficacy and safety outcomes, costs, and physician time for environmental benefit.**

Methods

- A questionnaire was sent to Thermo Fisher Scientific physicians in June 2025.
- It covered changes seen, proposed or foreseen, personal attitudes towards sustainability, and expectations about future changes.
- Multiple-choice and open-ended questions aimed to understand considerations and barriers to embracing changes. A projective question was included to gain insight into genuine attitudes towards environmental outcomes in clinical decisions.
- To explore attitude heterogeneities, questions about environmental consciousness in private life (waste recycling, travel, consumption) were linked to professional decisions.
- Questions also explored willingness to trade-off health outcomes, costs, and physician time for environmental benefits.

Results

Participant characteristics

- Out of 67 participants, 29 responses were received: 38% male; 70% aged 45-64, and 30% aged 35-44. 79% were from the USA, with others from Europe (13%), UK (3%), and Africa (3%).
- 12 practice areas were represented (oncology, allergology, immunology, geriatrics, emergency medicine, family medicine, respiratology, psychiatry, obesity medicine, diabetology, internal medicine, research medicine), and 83% of respondents are active clinicians.

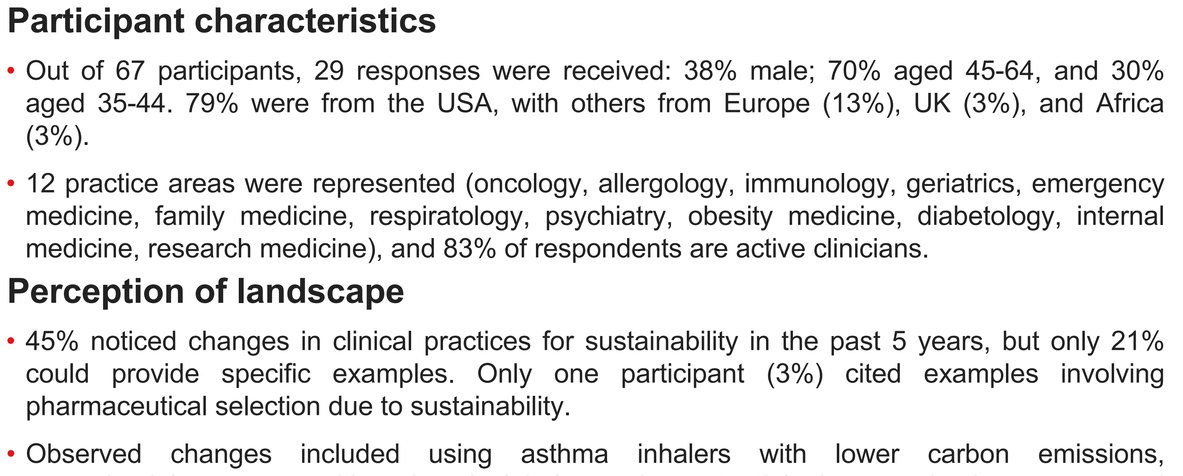
Perception of landscape

- 45% noticed changes in clinical practices for sustainability in the past 5 years, but only 21% could provide specific examples. Only one participant (3%) cited examples involving pharmaceutical selection due to sustainability.
- Observed changes included using asthma inhalers with lower carbon emissions, anaesthesiology gases with reduced global warming potential, decreased printer paper and single-use items, and improved waste management.
- Foreseen changes included reducing toxic materials in pharmaceutical production, fewer single-use plastics, a shift towards virtual trials, and improved medication packaging.

Awareness of and openness to considering environmental information

- Most participants (52%) considered themselves somewhat familiar with sustainability in healthcare; 7% were very familiar, 31% were not very familiar, and 10% were not at all familiar.
- 62% were open to considering environmental outcomes in clinical decisions, but only 48% believed their peers would do the same. Additionally, only 14% actively sought information about the environmental impact of materials or therapies in the past year.

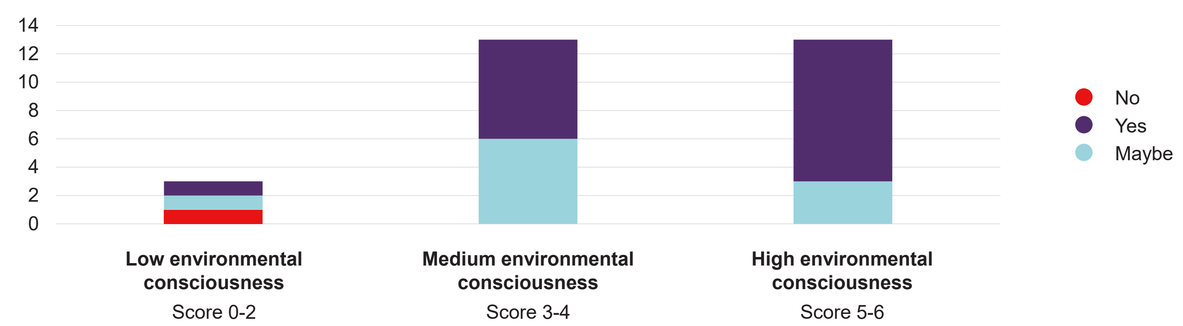
Figure 1. Willingness to consider environmental outcomes in clinical decisions



- Willingness to consider environmental information in decision-making did not vary significantly by gender or age.
- Seeking and considering information professionally were positively correlated with concern for these factors in personal decisions (consumption choices, recycling, travel).

Results (cont.)

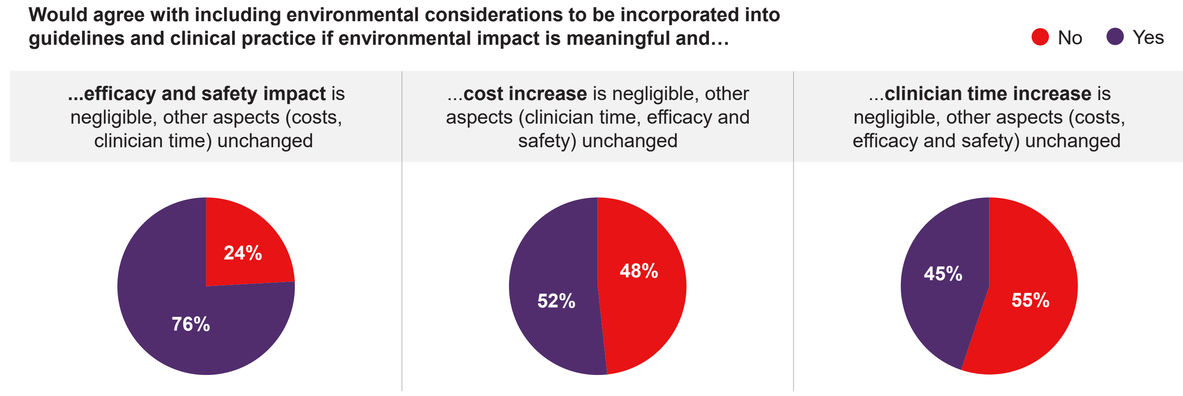
Figure 2. Heterogeneity in the willingness to consider environmental outcomes in clinical decisions



Score on considering environmental aspects in personal decision making is calculated based on responses to three questions: Do you take into account sustainability in your everyday life (i.e. outside of work) in the following areas: 1) Waste management (e.g. recycling), 2) Travel, and 3) Consumption choices (e.g., food from local sources).
"Never" = 0 points, "Sometimes" = 1 point, "Always" = 3 points. Maximum achievable score is 6.

- For meaningful environmental improvement, 45%, 52%, and 76% of respondents were willing to accept a negligible worsening of clinician time, costs, and efficacy and safety outcomes, respectively. This question aimed to measure openness to the concept of environmental trade-off, as it proposes a **meaningful** benefit on environmental outcomes at the price of a **negligible** sacrifice in the other dimensions.

Figure 3. Conceptual acceptance of trading off health outcomes, costs, and physician time against environmental benefit



The question aimed to measured openness to the concept of trading off, as it proposes a **meaningful** benefit on environmental outcomes at the price of a **negligible** sacrifice on the other dimensions.

Strengths and limitations

- Our survey reached a diverse set of physicians across various practice areas and covered multiple dimensions of environmental impact: perception of the current landscape, expectations for future changes, awareness, willingness to consider environmental impact information, and attitudes towards trade-offs.
- There are important limitations to this exploratory survey. The sample is not representative of all physicians due to multiple factors. Physicians employed by Thermo Fisher Scientific may have different attitudes compared to other physicians, and the direction and magnitude of this difference are unknown. Results are subject to selection bias; those with a favorable attitude towards environmental impacts may have been more likely to respond.

Conclusions

- **Most clinicians observed changes in clinical practices aimed at improving sustainability over the past five years, and many identified areas for future changes.**
- **Clinicians showed a cautiously positive attitude towards considering environmental aspects in healthcare decisions, but there was significant heterogeneity in awareness and stance. They were divided on willingness to trade off efficacy, safety outcomes, costs, and physician time for environmental benefits. Many were unwilling to make even negligible sacrifices for meaningful environmental improvements, especially regarding their own time.**
- **Overall, while there is considerable awareness and openness among clinicians towards integrating environmental considerations into healthcare decisions, diverse attitudes towards accepting trade-offs highlight the need for further education and consensus-building to achieve meaningful progress in sustainable healthcare practices.**

References

1. Berners-Lee, M. *The Carbon Footprint of Everything*. Greystone Books; 2022.

Disclosures

KM and **RC** are employees of PPD™ Evidera™ Health Economics & Market Access, Thermo Fisher Scientific. **MJC** is an employee of Thermo Fisher Scientific. **ÁB** was an employee of Thermo Fisher Scientific at the time of conducting the study. This poster was funded by Thermo Fisher Scientific.

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