HTA383

Consideration of carbonomics in health technology assessment to support healthcare decision-making

Bhatt, Neel[1]

Sanofi, Reading, UK[1]

BACKGROUND

- It is clear there is a global phenomenon across all industries and countries to unite in considering their carbon footprint and environmental impact throughout their practice. This therefore also accounts for the healthcare ecosystem in which they operate within, specifically health technology assessment (HTA) bodies.
- The impact of carbon emissions across technologies should be factored during the HTA process since healthcare globally contribute between 4-5% of global net carbon emissions[1].
- As an example, the National Institute of Health & Care Excellence (NICE) has publicly pledged their commitment towards sustainability which focuses on environmental health risks, minimising waste, support biodiversity, implement 'Greening Government Commitments' and the introduction of HTA Innovation Laboratory (HTA Lab). This is where the environmental impact of competing technologies are considered against one another and factored throughout the decision-making process (currently in pilot phase)[2]. Another example is the vaccines tendering process within the United Kingdom accounts for environmental factors during their decision-making process.
- However, this excellent example of how one HTA body is moving ahead with sustainability, the activity of accounting for environmental and societal impact during the HTA process is scarce and inconsistent across the globe.
- The concept of carbonomics encompasses the economic and social considerations of the current environment on carbon emissions, accounting for achieving net-zero targets. This includes factoring, government, technological and regulatory frameworks[3].

OBJECTIVES

- This study aims to explore the current global HTA landscape across assessment bodies on their sustainability commitments, efforts and determine whether these factors are considered when appraising new technologies.

METHODS

- A desktop search was conducted to determine the HTA bodies that should be considered during this study. This factored key global stakeholders and therefore seven agencies were selected.

The HTA bodies included within this study:

National Institute of Heath & Care Excellence

Scottish Medicine Consortium

Canada Drug Agency

Haute Autorité de sant

Interterritorial Council for the National Health System

Italian National Agency for Regional Healthcare Services

Danish Health Technology Council

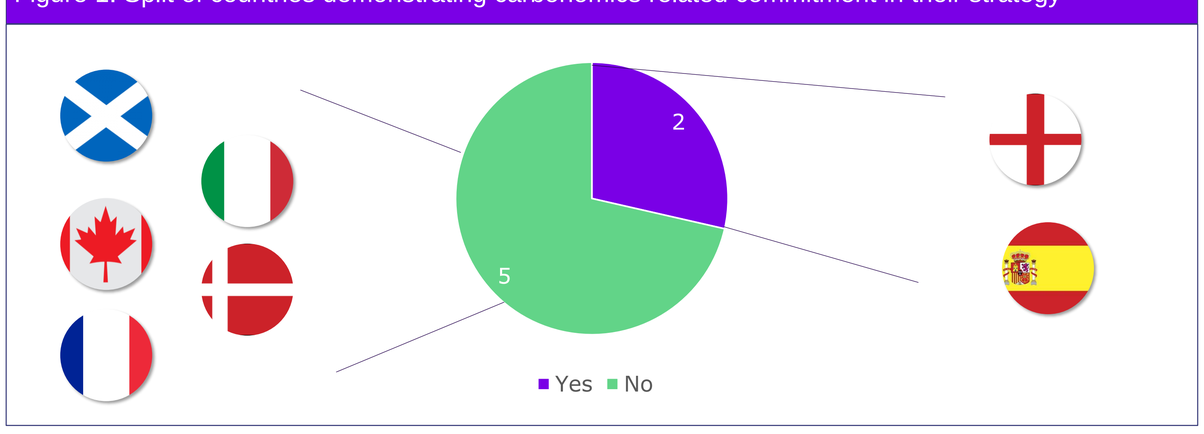
*Note: country selection was based on global influence, positioning perceptions and the utilisation of a HTA framework as part of the healthcare decision-making process.

- Across each of the HTA bodies selected a targeted review across available material was conducted to determine any information related to carbonomics.
- The following search terms were used throughout this investigation:
  - Carbonomics
  - Carbon footprint
  - Environmental
  - Environment

RESULTS

Countries carbonomics strategy

Figure 1. Split of countries demonstrating carbonomics related commitment in their strategy



Discussion

- Figure 1 highlights the current state of play across the seven selected geographies and their related HTA bodies regarding documentation of commitment towards carbonomics related strategy.
- Interestingly it has identified only two (29%) of the seven countries demonstrate a commitment towards carbonomics within their strategy. These countries are, England and Spain with their respective HTA bodies as NICE and Interterritorial Council for the National Health System, respectively.
- Through this search, it has been identified that only Canda – Canada Drug Agency (CDA), have outlined carbonomics related terms within their HTA assessment framework, albeit at the time of this investigation, the current status is 'in-progress'. Further information on full guidance can be accessed through the section titled' Criteria for conducting Environmental Assessments in CADTH HTAs'. The CDA equally allude to the fact environmental considerations are becoming more prominent to support decision-making and the healthcare ecosystem must factor such issues to ensure there is a sustainable future[4].
- Conversely NICE (England), may not present any information related to carbonomics within their submission template guide, however, several activities have been conducted to demonstrate their efforts which include: NICE Listens project to determine the publics opinion on building a more environmentally sustainable healthcare system in an effort to commit towards the National Health Service (NHS) net zero target, HTA labs workstream currently in-progress to evaluate technologies against one another on their environmental impact and accounted for sustainability within their prioritisation framework [2].

LIMITATIONS

- Relatively small pool of global HTA bodies have been critiqued. It would be beneficial for a larger study to be conducted to evaluate a broader set of geographies.
- Only four key search terms have been utilised to encompass carbonomics.

CONCLUSIONS

- **It is clear from this investigation that a small proportion of globally leading HTA bodies have introduced a commitment towards carbonomics within their working practice influenced by their governing strategy. With this, investigating the opportunity to account for the environmental impact of technologies during their appraisal is deemed a suitable consideration.**
- **The impact on the environment across all activities is a global concern and therefore access, appraising and governing new health technologies should not be exempt during the assessment and decision-making process. Greater alignment across global markets would encourage and support the introduction of carbonomics within the HTA process and governing frameworks.**
- **A key example is the United Kingdom tendering process for vaccines accounts for environmental factors and therefore this can form the basis of a case study. Positive inference can be made from the current HTA labs workstream at NICE could influence the inclusion of carbonmics within the submission guide template in the future.**

REFERENCES

1. Tennison, I. et al. (2021) 'Health Care's response to climate change: A carbon footprint assessment of the NHS in England', The Lancet Planetary Health, 5(2). doi:10.1016/s2542-5196(20)30271-0.
2. Environmental sustainability: NICE: Available: Environmental sustainability | Who we are | About | NICE
3. Carbonomics: The Economics of Net Zero: Goldman Sach: Available: Carbonomics: The Economics of Net Zero (goldmansachs.com)
4. Criteria for conducting Environmental Assessments in CADTH HTAs: CDA: Available: Criteria for conducting Environmental Assessments in CADTH HTAs | CDA-AMC

DISCLOSURES

NB is an employee of Sanofi and may hold stocks or stock options in the company.

ACKNOWLEDGEMENTS

Allen, R. and Diribe, O. have provided editorial guidance and support during this study.

CONTACT

Name: Neel Bhatt E-mail: neel.bhatt@sanofi.com