

# ISPOR HEOR Trends Over Time: What Is the Influence of Macro HTA Changes?

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## Background

- The Professional Society for Health Economics and Outcomes Research (ISPOR) surveys its members and global leaders to capture key methodological and policy trends in health economics and outcomes research (HEOR) which are expected to significantly impact healthcare decision-making.

## Objective

- The aim was to review and summarize ISPOR's HEOR trends and capture the potential impact of health technology assessment (HTA) processes.

## Key Results

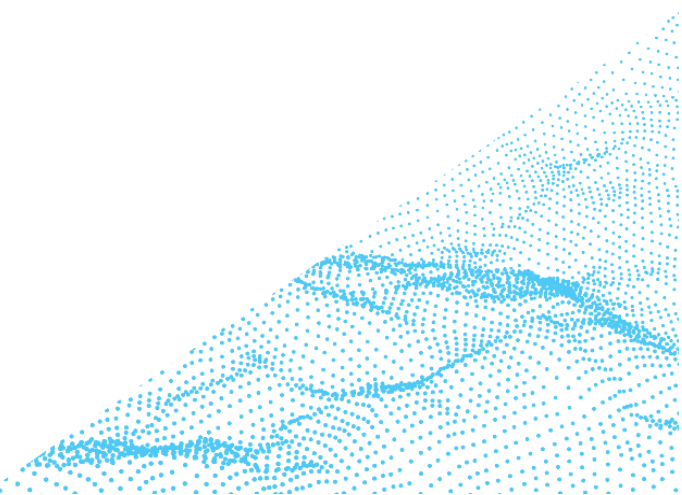
- Eleven different trends were identified across the last five years. Real-world evidence (RWE) appeared as the third-most influential trend in 2019 and has become the top trend since 2020.
- The latest research initiatives, HTA collaborations, and the recent coronavirus disease 2019 (COVID-19) pandemic may have influenced the appearance, upgrade, or disruption of the ranking of some of these trends.

### Top 10 HEOR Trends

ISPOR continues to conduct horizon scanning and monitor the trends that affect healthcare decision making around the globe.

## Conclusion

- Capturing HEOR trends through a representative organization such as ISPOR is key to understanding past and potential future developments in methods and processes of health policy, considering the broader interplay of contextual and methodological advances.



## Methods

- A targeted search was conducted for the top 10 trends published by ISPOR between 2018 and 2022. Key information was extracted from the publications to explore the consistency of trends over time and the evolution of HEOR themes.
- This search was supplemented by identifying key HTA developments and related methodological movements in decision-making in the same period that may have impacted the rankings. Results were synthesized qualitatively using infographics.

## Results

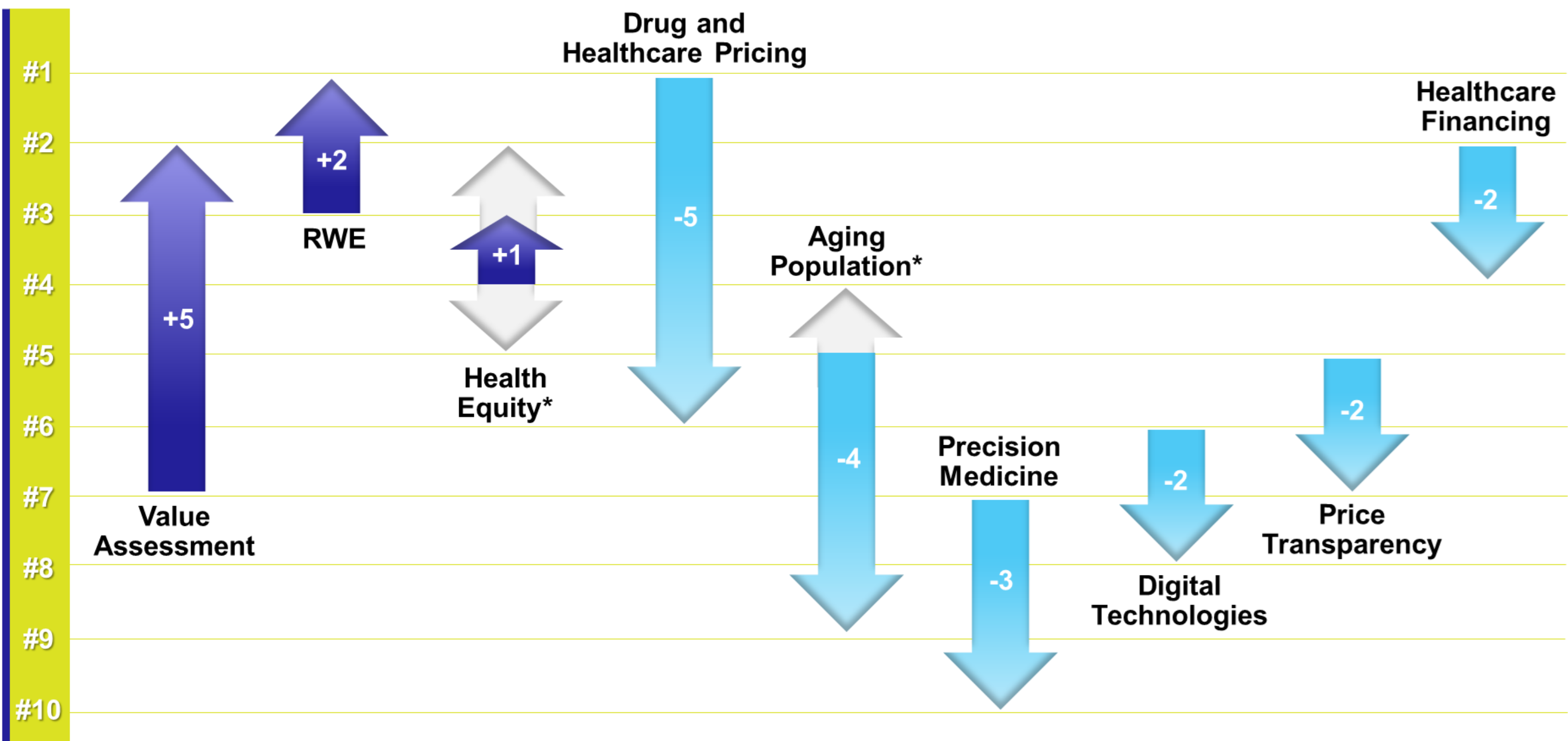
- ISPOR published four documents with the top 10 trends for 2018, 2019, 2020, and 2022–2023.<sup>1-4</sup> For 2021, ISPOR did not publish a document, which could be attributed to the COVID-19 pandemic. All identified trends by year are listed in Table 1. Some trends appeared only once in the rankings and others made the list multiple times. Drug (and healthcare) pricing and spending appeared each year and RWE appeared three times. On the contrary, biosimilars as a trend only appeared once, due to potentially limited interest or lack of new related methods.
- How the ranking of trends changed over time is illustrated in Figure 1. RWE was the third-most influential trend in 2019 and has moved into the top position since that time; drug and healthcare pricing dropped from the top trend in 2018 to the sixth position in 2022–2023. Some trends, such as universal health coverage and aging population fluctuated during the five years.<sup>1-4</sup>

Table 1. Overview of the top 10 trends by year

	2018	2019	2020	2022–2023
#1	Drug and HC pricing	Drug and HC pricing	RWE	RWE
#2	Innovative and curative therapies	Going beyond UHC	Drug and HC pricing	Value assessment
#3	Accelerated drug approvals	RWE	Novel curative therapies	Health equity
#4	UHC	Aging population	Overall HC spending	HC financing
#5	Aging population	Price transparency: not just about drugs	UHC – access and equity	Patient engagement
#6	mHealth	“Big data” continue to make noise	Value-based alternative payment models	Drug and HC pricing
#7	Diagnostics	Value assessment frameworks	Price transparency	Public health
#8	Biosimilars	HC decision-making in LICs	Digital technologies	HTA
#9	Preventive medicine	Personalized/precision medicine	Aging population	Health data
#10	Disruptive innovation	Unhealthy behaviors	Precision medicine	Artificial intelligence

Abbreviations: HC, healthcare; HTA, health technology assessment; LIC, low-income country; RWE, real-world evidence; UHC, universal health coverage

Figure 1. Change of ranking in trends over time



Note: Biosimilars only appeared once at No. 8 in 2018; HTA was ranked eighth in 2019 and 2022–23 and did not have data for the other years.

\*Health equity rose to No. 2 in 2019 and dipped back to No. 5 in 2020 before reaching the No. 3 spot; aging population rose to fourth in 2019 before plummeting to No. 9 in 2020.

## Results (cont.)

### Factors influencing HEOR trends

- Certain factors may have influenced the appearance, upgrade, or disruption of the top 10 HEOR trends over the past five years, reflecting changes occurring in the HEOR landscape and decision-making. Three have been explored in further detail below.

### Real-World Evidence

- Factors that could influence HEOR trends include recent research initiatives and HTA collaborations. The GetReal Initiative in Europe, for example, bridges the gap between randomized controlled trials (RCT) and RWE by incorporating “real-world” elements in RCT design and implementation.<sup>5</sup> Furthermore, HTA collaborations with real-world data organizations like Flatiron<sup>6</sup> could have impacted the trends. Flatiron tests how additional sources of evidence could complement trial and research data in National Institute for Health and Care Excellence technology appraisals.<sup>6</sup>

### COVID-19

- The pandemic made its mark in different ways, including within the HEOR space. Public health made its first appearance in the top 10 HEOR trends reported by ISPOR in 2022–2023,<sup>4</sup> which highlights the influence of the pandemic within the HEOR space. COVID-19 has exacerbated the importance of public health priorities while balancing them with economic priorities, with the implementation of policies such as lockdowns, wearing face masks, and vaccinations.<sup>4</sup> It is expected that public health will be a lasting top trend in the near future.

### Artificial Intelligence

- Artificial intelligence (AI) is an emerging, and powerful tool that could have influenced the HEOR trends. AI reached the 10<sup>th</sup> spot in 2022–2023,<sup>4</sup> and is likely to become more prevalent in the future as machine learning techniques and AI offer more flexibility in the analysis of data. Several new AI techniques and initiatives are currently being explored, such as the “target trial approach” where the data are analyzed that reflect what would have happened if an observed patient was participating in an RCT.<sup>7</sup> Furthermore, Cochrane has published a new approach, “Living Systematic Literature Reviews (SLR),” which implements AI to produce evidence.<sup>8</sup> This is an SLR that is constantly updated, and incorporates relevant new evidence identified via continual, active monitoring of the data.<sup>8</sup>

## Disclosures

This study was investigator-initiated and received no funding.

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