

Predicting: up to what point?

Speaker: Jeanne BOSSI MALAFOSSE, Partner, Cabinet Delsol Avocats | France; Nicolas BOUZOU, Economist, President, Astères | France; Ritva HALILA, Senior Medical Advisor, chair of the Steering Committee for Human Rights in the Fields of Biomedicine and Health – CDBIO, Ministry of Social Affairs and Health | Finland; Bertalan MESKÓ, Director, The Medical Futurist Institute | Hungary

Led by: Isabella de MAGNY, CEO, Inspiring Futures | Switzerland

The increasingly frequent use of prediction leads to a shift in the healthcare paradigm

The notion of prediction in the healthcare sector covers several meanings. It can refer to the use of connected objects, the calculation of life expectancy, the early diagnosis of a disease, the anticipation of an epidemic outbreak, or the projections on the effectiveness of a treatment. Prediction creates a capacity for prevention by extending life expectancy, and a capacity for personalising care. Far from mapping out a clear-cut future, prediction makes it possible to visualise future issues and to adjust the actions implemented accordingly. The healthcare system will therefore need to shift from only treating people suffering from illnesses to taking care of almost the entire population. However, the development of exploitable databases takes time and will not be complete before several decades. Although prediction is revolutionising healthcare, it has its own limitations: some events cannot be predicted, and some others, even when predicted, cannot be avoided.

A new distribution of roles in patient care

Prediction places patients at the centre of decision-making processes alongside healthcare professionals. This patient's new role is reinforced by the decompartmentalization of access to information linked to the development of innovative technologies and globalization. In such a context, the healthcare professionals' place is also evolving. They are no longer the sole holder of information and are relieved of tasks such as data processing and decision making, that are now assumed by artificial intelligence. However, their role remains crucial to guide, support and facilitate the prediction process initiated by the patient.

Prediction's legal and ethical framework guarantees patients' rights but constrains the optimal use of tools

For ethical reasons, prediction is now at the centre of debates and more specifically regarding its use in the medical field and in genetics. In line with this perspective of protection, prediction is regulated by a strong legal framework both in France and in Europe. For example, the 2021 bioethics law sets limits to prediction by protecting both the people whose information is used in the databases and those who receive a prediction.

However, the legal framework for prediction is sometimes considered too rigid and the role of certain laws in protecting the individual is questioned. Does limiting certain genomic predictions really protect patients, or does it hinder them from benefiting from information that could preserve their health?

To reap the benefits of the technical potential being developed by 2030, it is necessary to prepare the transformation of the health system today

The scalability of predictive medicine in the coming years faces several obstacles. First, access to technologies and treatments must be equitable regardless of patients' financial and physical capabilities. The economic burden of prediction for the healthcare system should also be considered. On the one hand, prediction does not necessarily reduce medical costs, but rather shifts them upstream of the diagnosis. On the other hand, prediction is expensive and significant investments will be needed to disseminate predictive medicine on a large scale. Furthermore, the legal framework must individually analyse the impact of each form of technology, data collection and analysis on patient technologies. Finally, the level of computerisation of the healthcare system must be in line with the one required to use the technologies.