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INTRODUCTION

In April 2023, an open-format personalized medicine (PM) initiative group was established in Lithuania uniting representatives of patient organizations, medical institutions, universities and the pharmaceutical industry. The importance of developing PM in Lithuania is highlighted in the strategic document "Lithuania 2050", approved by the Parliament of the Republic of Lithuania in December 2023. In September 2024, the Center for Strategic Analysis of the Government prepared a feasibility study that examined personalized medicine implementation abroad, assessed Lithuania's current ecosystem, offered a SWOT analysis and three development scenarios, along with recommendations for strengthening the field in Lithuania. Following this study, the Ministry of Health committed to coordinate integration, gather and unite the participants and take the lead in preparing a specific action plan. Although initial steps have already been taken to improve PM in Lithuania, these efforts need to be integrated into daily practice. Despite official commitments, practical implementation at the country level remains limited.

OBJECTIVE

Identify the challenges impacting practical implementation of PM in Lithuania and focus on potential opportunities to reduce complexity within the system.

METHODS

The Guide was developed through desk research, including a grey literature review.

A qualitative semi-structured interview, utilizing key informant interviews with the main groups of stakeholders.

Focus on three main topics: 1)Actual situation 2)Leadership and responsibility 3)Barriers and opportunities

The main groups of stakeholders identified according to 2023 involvement in the open-format PM development initiative group: representatives of providers (including young doctors association; hospital administration; physicians), the pharmaceutical industry, regulatory institutions, patient organizations and academics.

A total of nine interviews were conducted between April 4 and October 4, 2024.

Interviews were conducted via MsTeams through video calls at times mutually agreed upon with each participant. The average duration of each session was one hour long. All interviews were recorded in video format and subsequently transcribed using MsWord dictation tool, with accuracy verified through the author's review. Responses were systematically coded and analyzed using the evidence-based framework for studying the Non-adoption, Abandonment, and challenges to Scale-up, Spread, and Sustainability of Health and Care Technologies (NASSS) (Greenhalgh & Abimbola, 2019) method. Confidentiality of all participants was strictly upheld at all stages of the study.

RESULTS

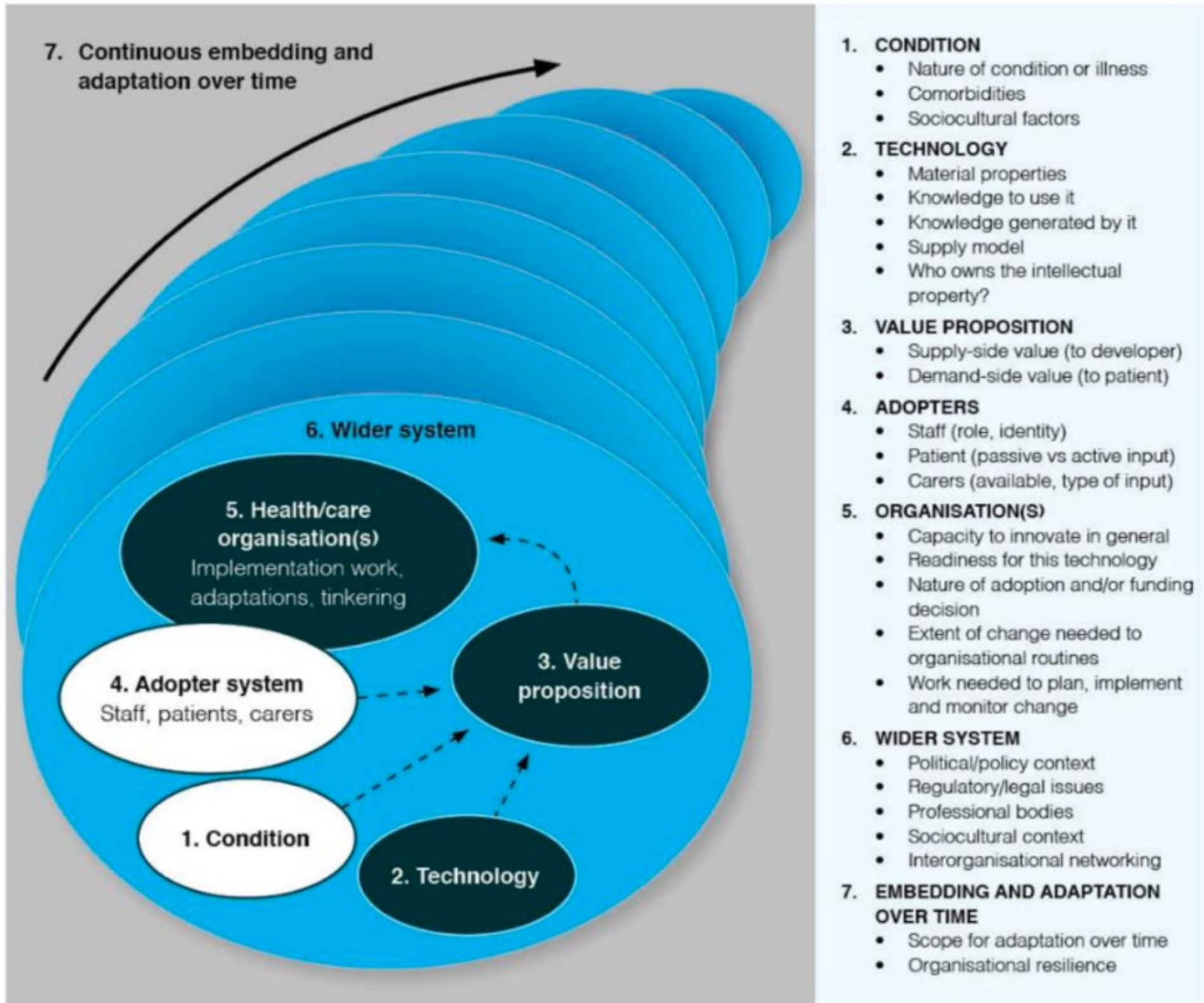


Figure 1. The non-adoption, abandonment, scale-up, spread, and sustainability framework for studying non-adoption and abandonment of technologies by individuals and the challenges to scale-up, spread, and sustainability of such technologies in health and care organizations. (Greenhalgh & Abimbola, 2019).

The NASSS framework was employed to identify areas of high complexity:

- 1. CONDITION**
 - Reach an agreement on the overall concept, including naming. Personalized medicine is gaining prominence because it has been known for the longest time.
- 2. TECHNOLOGY**

Specialists' hesitation in adopting innovative practices due to routine work challenges

 - Physicians need to strictly adhere to established algorithms and treatment guidelines, with limited flexibility and time constraints per patient. They advocate for increased autonomy for primary care physicians and secondary-level specialists.
 - Patient groups and academics have expressed concerns regarding the absence of a standardized regulatory framework for quality control in genetic testing in Lithuania.
- 3. VALUE PROPOSITION**

Legislators lack interest in investment value

 - Regulatory institutions and academics note limited recognition of the benefits associated with personalized medicine, often focusing solely on immediate costs rather than acknowledging its potential for long-term savings in human resources and system efficiency.
- 4. ADOPTERS**

Patient groups feel left out of the decision-making process.

 - Patient associations show boundless enthusiasm but have expressed concerns regarding their exclusion from the decision-making process.
- 5. ORGANISATION(S)**

Complexity arises from the lack of agreement on funding

 - All interview groups mentioned the complexity due to the distribution of funding.

Necessity of enhanced leadership

 - The pharmaceutical industry noted a lack of interest from regulatory bodies.
 - Regulatory institutions and hospital administration emphasized the significant deficiency in inter-institutional cooperation.
- 6. WIDER SYSTEM**
 - From physicians' perspective, the system is lacking flexibility.
- 7. EMBEDDING AND ADAPTATION OVER TIME**
 - Organizational resilience results from the perception of PM as high-investment, compounded by a lack of knowledge among legislators on this topic.
 - Essential to develop a highly flexible system, enabling physicians to select and administer the most appropriate treatment for each patient, while still operating within established guidelines.

CONCLUSIONS

The study results that complexity arises from all domains, necessitating involving patient organizations in the decision-making process, agreeing on funding, and cooperating at an inter-institutional level to make a highly flexible system that would allow physicians to select and administer the most appropriate treatment for each patient. It is important to gain strong support from legislators to foster an understanding that PM represents strategic, long-term investment in the future alongside enhancing their knowledge on this topic. A structured approach and reduced complexity in all domains will be pivotal for the successful practical implementation of PM in the country.

REFERENCES

Center for Strategic Analysis of the Government. *A study of possibilities for the development of personalized medicine in Lithuania*. (2024).

Greenhalgh T. & Abimbola S. (2019). *Applied Interdisciplinary Theory in Health Informatics. The NASSS Framework – A Synthesis of Multiple Theories of Technology Implementation*. p. 193-204.

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