Guide on MAFEIP

MAFEIP as a Challenge

Monitoring and Assessment Framework for the European Innovation Partnership on Active and Healthy Ageing (MAFEIP)

MAFEIP is a web-based tool whose purpose is to estimate the health and economic outcomes of different ICT enabled social and health innovations, including new care pathways, devices, surgical techniques, and organisational models. It aims to support evidence-based decision-making processes for all institutions and users in the health and care sector. MAFEIP measures the likelihood that the assessed interventions will achieve their expected impacts in terms of both increased efficiency and improved health and quality of life of the beneficiaries and simulate changes in the interventions in order to detect the key determinants of their effectiveness and usefulness and guide further design, development or evaluation.[1]

The MAFEIP tool rests on the principles of Decision Analytic Modelling (DAM), an approach that is commonly used in health economic evaluations to assess the health and economic impact of healthcare innovations. More precisely, MAFEIP is based on a generic Markov model, an approach that allows for the impact assessment of healthcare innovations in terms of health outcomes and resource use.

Based on data introduced into the tool, which may be (preliminary) data from clinical studies, expert opinions and your own views, this model performs an incremental analysis of the impact of your innovation. This means that it estimates the changes in healthcare resource use, societal resource use and health related quality of life that result from using your innovation instead of current care. As a result, you would need data on both the current care situation for your target population, as well as the situation in which your intervention is used.[2]

Importance of MAFEIP for Transforming and Supporting Person-centred Care

In the face of restricted budgets and the increasingly ageing population, public service providers are increasingly using Health Technology and Intervention Assessment as a way of managing healthcare budgets by providing access to care interventions that demonstrate robust clinical and economic effectiveness.

Within the framework of the new 2017-2019 EIP on AHA cycle, MAFEIP represents one the three cross-cutting initiatives that are open to any Partner to participate along with the Blueprint on Digital Transformation of Health and Care and the Innovation 2 Market initiative. The framework and the tool were initially developed to provide a common model and a shared language in response to the EIP on AHA members' specific monitoring needs. Today the tool has achieved a high level of maturity and has gone through a collaborative improvement and refinement process which makes it usable and flexible to adapt to different kinds of users far beyond the EIP on AHA context.

Key Issues Regarding MAFEIP

Innovative interventions analysis including novel ICT tools necessary to integrate care pathways across organisations and locations, technology scenarios for improved care management, and devices for improved fall risk assessment.

Supporting Mechanisms and Tools that Help Address the Topic

- Information on the MAFEIP tool can be found here: https://www.mafeip.eu/the-tool
- To go direct to the tool and get started please use this link: https://tool.mafeip.eu/overview/
- A user guide can be found here: https://tool.mafeip.eu/assets/file/MAFEIP_User_Guide_v2_Website.pdf

Main Stakeholders Concerned

Health and social care providers as well as private insurance companies participate in the co-design of technology-based solutions and use the evidence resulting from real-life pilots to assess their effectiveness and utility and take their decision to invest or to buy.[3]

Policy maker: MAFEIP can assess the value of the innovation for citizens or other stakeholders and support the systematic evaluation of properties, effects, and/or impacts of health technologies and interventions in different population target groups. For instance, the MAFEIP tool can evaluate over a cohort of patient the incremental gain provided by the intervention underassessment giving results for each age-gender combination either for males or females, or

as a weighted average for the age and gender distribution in the target population. This allows to assess the cost-effectiveness and usefulness of the proposed intervention for certain population target groups and better target policy decision based on specific needs.[2]

Companies: MAFEIP tool assesses the potential impact of new business ideas for healthcare interventions leading towards new technology developments. For this purpose, it represent a valuable instrument both in the pre-market validation phase and on later stages of the product life cycle.[2]

Researchers: MAFEIP has the potential to improve the quality and relevance of future research and to better serve the information needs of patients, clinicians, payers, and other decision makers by helping to identify gaps in evidence providing important contributions to the comparative-effectiveness research and patient-centered outcomes research.[2]

Examples, Good Practices and Evidence of Impact Relevant to the Topic

Puglia Case Study addressed the need to reduce the level of dialysis taking place in hospitals, and thereby increase the amount of dialysis treatment at home increasing quality of life for patients treated with hemodialysis, home care and reducing the costs of hospitalization.[4]

City4Age Case Study examined a classifier that discriminated elderly people who are robust from those who are not. Such classifier is used to timely detect people at risk of health decay and keeping them healthy for as long as possible.[5]

Do CHANGE project was conducted in three different locations aimed to provide patients with high blood pressure (HT), ischemic heart disease (CAD) or heart failure (HF) chronic conditions with a set of tools and services to better monitor and manage in real-time their health condition and disease.[6]

CareWell project focused on the provision of care and support to older people who have complex health and social care needs. This was achieved through ICT enabled healthcare services coordination and monitoring, patients' self-management, and informal care givers' involvement.[7]

Renewing Health aimed to implement telemedicine services in nine European regions for the validation and subsequent evaluation of these services using a patient-centred approach and a common assessment methodology (MAST). The services target telemedicine and treatment of chronic patients suffering from diabetes, Chronic Obstructive Pulmonary Disease (COPD) or Cardiovascular Diseases (CVD).[8]

MD-Paedigree aimed to develop a set of reusable and adaptable multi-scale models for more predictive, individualised, effective and safer paediatric healthcare. The concrete intervention explored in this use case is a model scenario for improved paediatric cardiomyopathy care.[9]

References and Guidance Documents

- MAFEIP Use Cases: https://www.mafeip.eu/the-mafeip-community
- MAFEIP User Guide, Version 2.0: https://tool.mafeip.eu/assets/files/MAFEIP_User_Guide_v2_Website.pdf
- Monitoring and Assessment Framework for the European Innovation Partnership (MAFEIP) on Active and Healthy Ageing: HYPERLINK "https://www.mafeip.eu/"https://www.mafeip.eu/
- User Guide and Data Collection Codebook: https://www.mafeip.eu/supporting-materials

Endnotes

1. European Commission. (2020). *Monitoring and Assessment Framework for the European Innovation Partnership on Active and Healthy Ageing (MAFEIP)*. https://www.mafeip.eu/.
2. European Commission. (2020). *What is MAFEIP*. https://www.mafeip.eu/the-tool.
3. European Commission. (2020). *Start using MAFEIP*. https://www.mafeip.eu/what-is-mafeip-for.
4. European Commission. (2020). *CDK Integrated Care*. https://www.mafeip.eu/node/47.
5. European Commission. (2020). *City4Age Case Study*. https://www.mafeip.eu/node/46.
6. European Commission. (2020). *Do CHANGE project conducted in three different locations*. https://www.mafeip.eu/node/43.
7. European Commission. (2020). *Integrated care for frail elderly patients in the Basque Country - Carewell project*. https://www.mafeip.eu/node/38.
8. European Commission. (2020). *Renewing Health: Telemonitoring for Type 2 Diabetes Patients in Thessaly, Greece*. https://www.mafeip.eu/node/37.
9. European Commission. (2020). *MD-Paedigree Clinical Impact Assessment*. https://www.mafeip.eu/node/19.

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