

## Health systems research



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Health systems must adapt effectively to changing environment, and tackle significant challenges with limited resources: changing demographics and burden of disease, advances in biomedical research, health technologies and personalised medicine, and the availability of large data sets.

DG Research and Innovation, through its *FP7* and *Horizon 2020* framework programmes, aims to provide evidence to support health systems across Europe. While there is significant diversity in the organization of health services, European health systems share common objectives such as patient-centredness, access to innovation, and financial sustainability. The diversity of health systems across Europe, in fact, provides an opportunity to identify good practices and study whether and how they can be transferred to other countries and regions.

### Integrated care

Integrated care seeks to achieve person-centred, efficient and safe care. Ageing patients with multimorbidities and complex care needs require a care delivery system that brings together a wide range of skills from the health, long-term care, and social care sectors. An integrated model of care will improve outcomes of care by overcoming issues of fragmentation through linkage or coordination of services of different providers along the continuum of care.

#### Project examples

**COFI** compares the effectiveness and cost-effectiveness for clinical and social outcomes, patients' health and social needs, safety, and quality of care of patients in a specialised or integrated type of mental health system setting. The project describes how patients and clinicians experience the advantages and limitations of each system, and identify the policies and legislative frameworks determining each practice.

**PROJECT INTEGRATE** analysed best practices of integrated care that result in positive patient care experiences, healthcare outcomes, and cost-effectiveness, aiming to define what constitutes good quality integrated care provision.

**SELFIE** aims to improve patient-centred care for patients with multi-morbidity by proposing evidence-based, economically sustainable integrated chronic care models that stimulate cooperation across health and social care sectors, and are supported by appropriate financing/payment schemes. The project focuses on multi-morbidity, on generating empirical evidence of the impact of integrated chronic care model, and on financing/payment schemes by applying multi-criteria decision analysis.

## Health workforce

The health workforce is a key contributor to health system performance. The growing demand for person-centred health services and personalized care necessitates better health workforce strategies. New models of care coordinating prevention, curative services, and rehabilitation, along with reinforcement of primary care, will involve the reallocation of tasks and responsibilities among healthcare professionals, leading to the creation of new roles with relevant skillsets.

### Project examples

**HEALTH PROMETHEUS** provided a better understanding of existing patterns of professional mobility, and the organisational, contextual and personal factors that shape the decisions of health professionals to move across borders, including the positive and negative impacts of their mobility. The project suggested feasible national and international policy interventions and identified effective managerial responses.

**MUNROS** aims to analyse the contribution of new professional roles to health service redesign and service integration. Its components map the skills and competences of the health professionals, evaluate the contribution and cost-effectiveness of labour substitution, and develop workforce planning models for integrated health care delivery.

**RN4CAST** studied the effects of nursing workforce dynamics (number of nurse staff, skill mix, working environment) on nurse wellbeing and patient outcomes. Hospital quality, safety and staff retention problems are common in all (studied) countries. Significant improvements in work environments would achieve the most value for investments in nurse staffing. Comprehensive planning and forecasting methods that account for the demographic change need to be established.

## Health technology assessment

Health technology assessment (HTA) is a tool for evidence-based decision-making in health systems. HTA is used to assess the added value of new health technologies (e.g. medicines or medical devices) compared to the existing standard of care. The aim is to inform decisions on pricing and reimbursement in a way that rewards innovations with added value for patients, while ensuring the sustainability of health systems. HTA draws on a variety of fields such as clinical sciences, epidemiology, statistics, economics and ethics. European collaboration facilitates sharing of expertise and evidence among HTA researchers and supports them in the development of common HTA methods that are scientifically sound, fit for purpose and fit for the future.

### Project examples

**ADVANCE-HTA, MedtechHTA, AdHopHTA, INTEGRATE-HTA** addressed methodological challenges in HTA. They developed new and improved HTA frameworks and methods covering medical devices, orphan drugs, complex interventions, hospital-based HTA, and multi-criteria decision analysis in HTA. Several projects funded under the Innovative Medicines Initiative (e.g. **GetReal, AdaptSmart**) include aspects related to the generation and analysis of evidence for HTA. Scientific-technical collaboration between HTA bodies across Europe is supported by the **EUnetHTA** Joint Action 3 under the EU Third Health Programme.