

# Recommendations from the MPI\_AGE European Project

Alfonso J. Cruz Jentoft  
Spain



# CONFLICT OF INTEREST DISCLOSURE

I have no potential conflict of interest to report



Co-funded by  
the Health Programme  
of the European Union

# MPI Age

Using Multidimensional Prognostic  
Indices to improve cost-effectiveness  
of interventions in multimorbid,  
frail older persons

**Alfonso J. Cruz-Jentoft**

*Hospital Universitario Ramón y Cajal (IRICYS)  
Madrid, Spain*



EUGMS



Karolinska  
Institutet



Hospital Universitario  
Ramón y Cajal  
Comunidad de Madrid



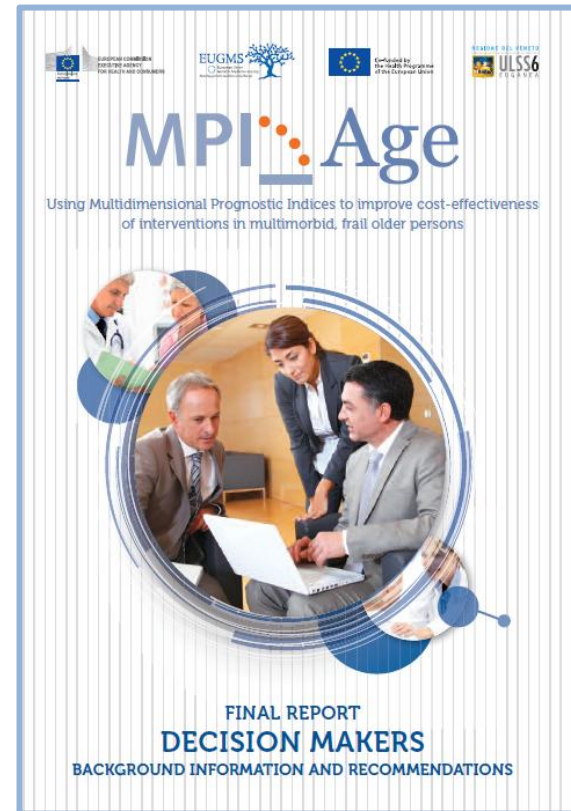
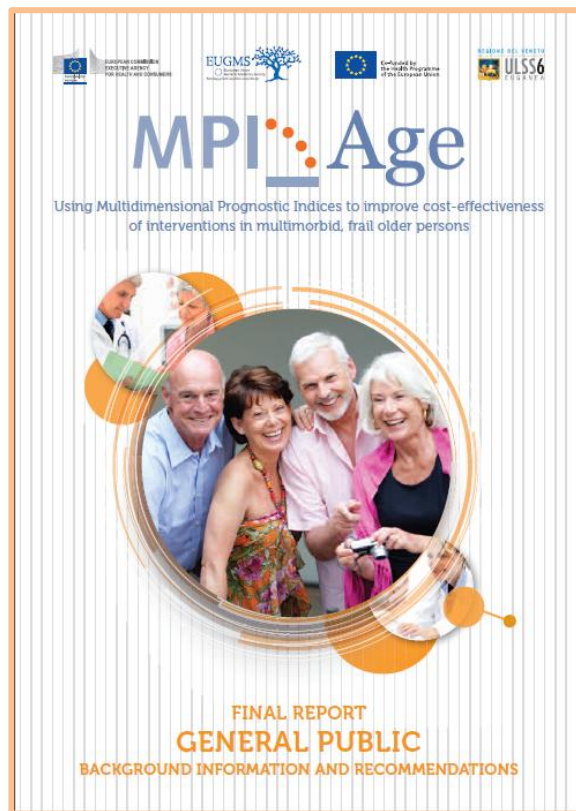
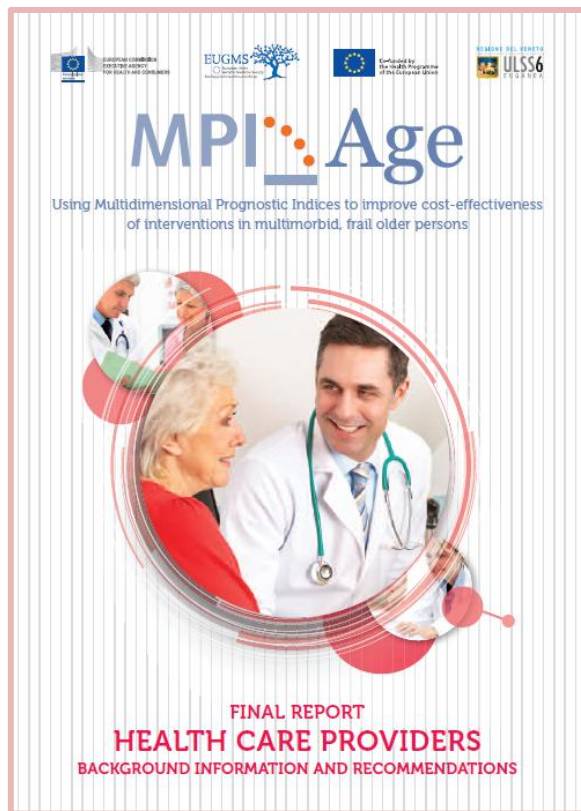
UNIKLINIK  
KÖLN

Erasmus MC  
University Medical Center Rotterdam  
*Erasmus*



**Recommendations**  
How to improve  
cost-effective  
interventions  
in health-care

## Three sets of recommendations based on MPI\_AGE project



Health interventions should be **adapted to individual needs** of older patients, especially for those with high disease burden, high complexity or relevant major physical and mental impairments.



Individual needs should be **objectively assessed** by means of **validated instruments**.

These instruments should be **multidimensional**

in order to capture all relevant domains.



Objective assessment of needs may **avoid discrimination of older people** (ageism) in decision-making.



The **Multidimensional Prognostic Index (MPI)** has proved to be the best validated assessment instrument in various healthcare **settings** (community, hospital and nursing homes) and across a wide range of **diseases and conditions.**





MPI also identifies problems in several domains that may benefit from **specialist comprehensive geriatric care.**



## Tailored healthcare interventions

have the potential to **reduce the inappropriate** use of resources (hospitalizations, drugs, diagnostic and other procedures) and to **allow well-established** treatment and interventions to be used in older people who **can benefit** from them.



**Tailored healthcare interventions  
have the potential  
to reduce inappropriate health-related costs.**



MPI can be adapted for use in population-based (Primary Care) and disease-oriented **databases** to accurately predict **survival** and **other health outcomes**.



MPI can be used to explore how **evidence-based knowledge** of drugs and invasive interventions applies across different **levels of frailty, complexity and life expectancy**.



In **hospitalized** older persons MPI identifies **groups at risk** for several hospital outcomes (i.e. mortality, length of stay, use of diagnostic tests). Individuals within each risk group may benefit from the **adaptation of interventions** to his/her prognosis and needs.



In **hospitalized** older persons MPI **predicts** several **post-discharge outcomes**:  
one-year mortality, rehospitalisation,  
admission to a nursing home,  
use of home-care services.



Changes in MPI during hospitalization **predict** long-term mortality and use of home-care services.





The role of MPI as a **potential outcome measure** for interventions needs to be explored.



Personalized medicine is feasible in older patients by proper multidimensional assessment.

MPI has shown to be an excellent tool for this. Tailored health care benefits patients, health care systems and the society as a whole.

