# **Frailty, disability, multimorbidity pattern and social components**

Population aging has become a pressing issue in the European Union, where the share of individuals aged 65 and older is projected to reach nearly 30% of the total population by 2050 (Eurostat, 2019). This trend underscores the need to understand the factors influencing healthy aging and quality of life in older adults, particularly in relation to frailty, disability, and patterns of multimorbidity.

The concept of frailty refers to a condition of increased vulnerability among older people, entailing a high risk of adverse health outcomes (such as falls, hospitalization and death) due to losses in one or more domains of the human functioning and has a significant impact on Quality of Life (QoL).

Frailty indicators can be strong predictor of healthy aging and the onset of disability and on the other side frailty and multimorbidity frequently coexist and interact. Multimorbidity is frequently used as a relevant covariate for frailty indicator construction at population level.

The literature has underlined the potential impact on frailty indicators of social and environmental factors, and the psychological dimensions in the elders; specifically frailty is assumed to be associated with depression in older adults, however, the mechanism underlying such relationships remains not fully explored. We aim to examine whether depression acts as a mediator or moderator in the relationship between frailty and social dimensions, considering other well know relevant covariates like multimorbidity patterns.

The research activity will use data from ISTAT “Aspetti della vita quotidiana” survey and the SHARE survey.

This project is part of the broader Age-It project, Challenge 1 “The Demography of Ageing: A Data Science Approach to Decision Making”, Task 4.3 “Health and disability by age and gender”.

The purpose of the fellowship is to support activities related to data preparation and statistical analysis, as well as the review of relevant literature.