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Programma Mattone Internazionale Salute

CONFERENCE

"The commitment of European healthcare systems to prevent and manage the frailty challenge"

Action Group on Lifespan Health Promotion & Prevention of Age Related Frailty and Disease approach to frailty

Frailty as the future core business of public health

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Ancona, Loggia dei Mercanti

Giuseppe Liotta MD, PhD
Biomedicine and Prevention Dept. - University of Rome "Tor Vergata"
Lazio Reference Site

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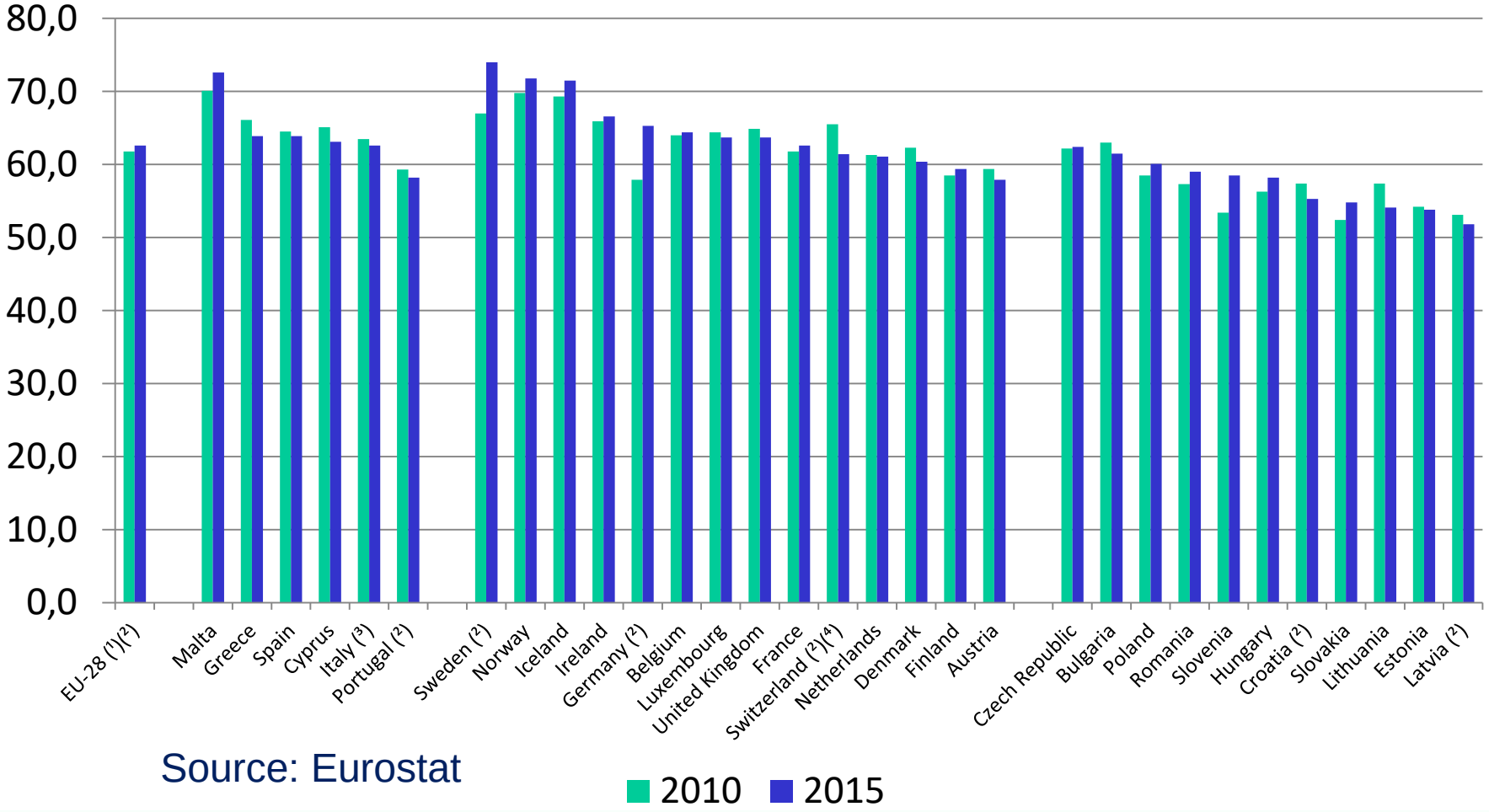
Healthy life expectancy at birth, males, 2010 and 2015



Source: Eurostat

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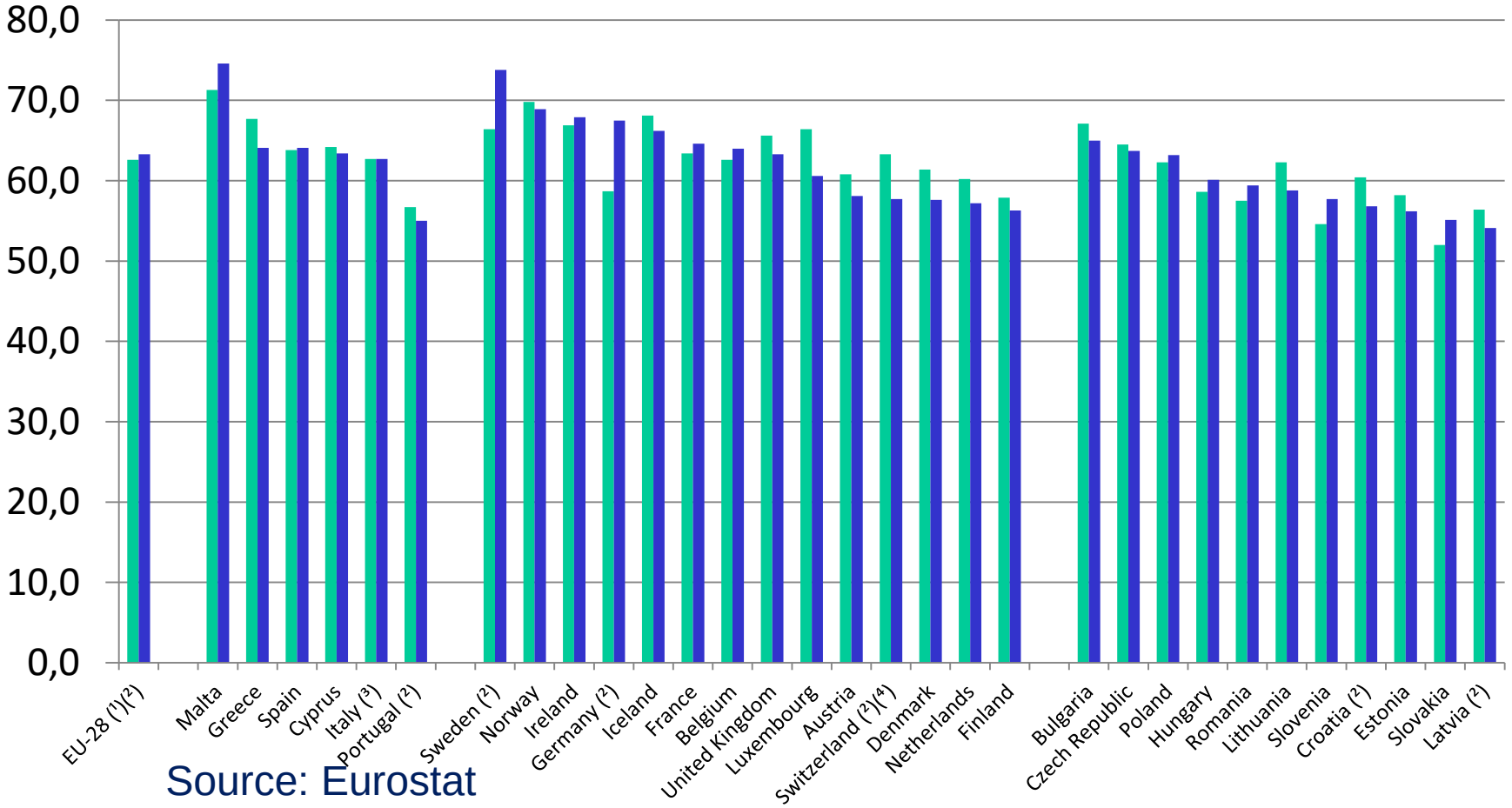
Healthy life expectancy at birth, females, 2010 and 2015



Source: Eurostat

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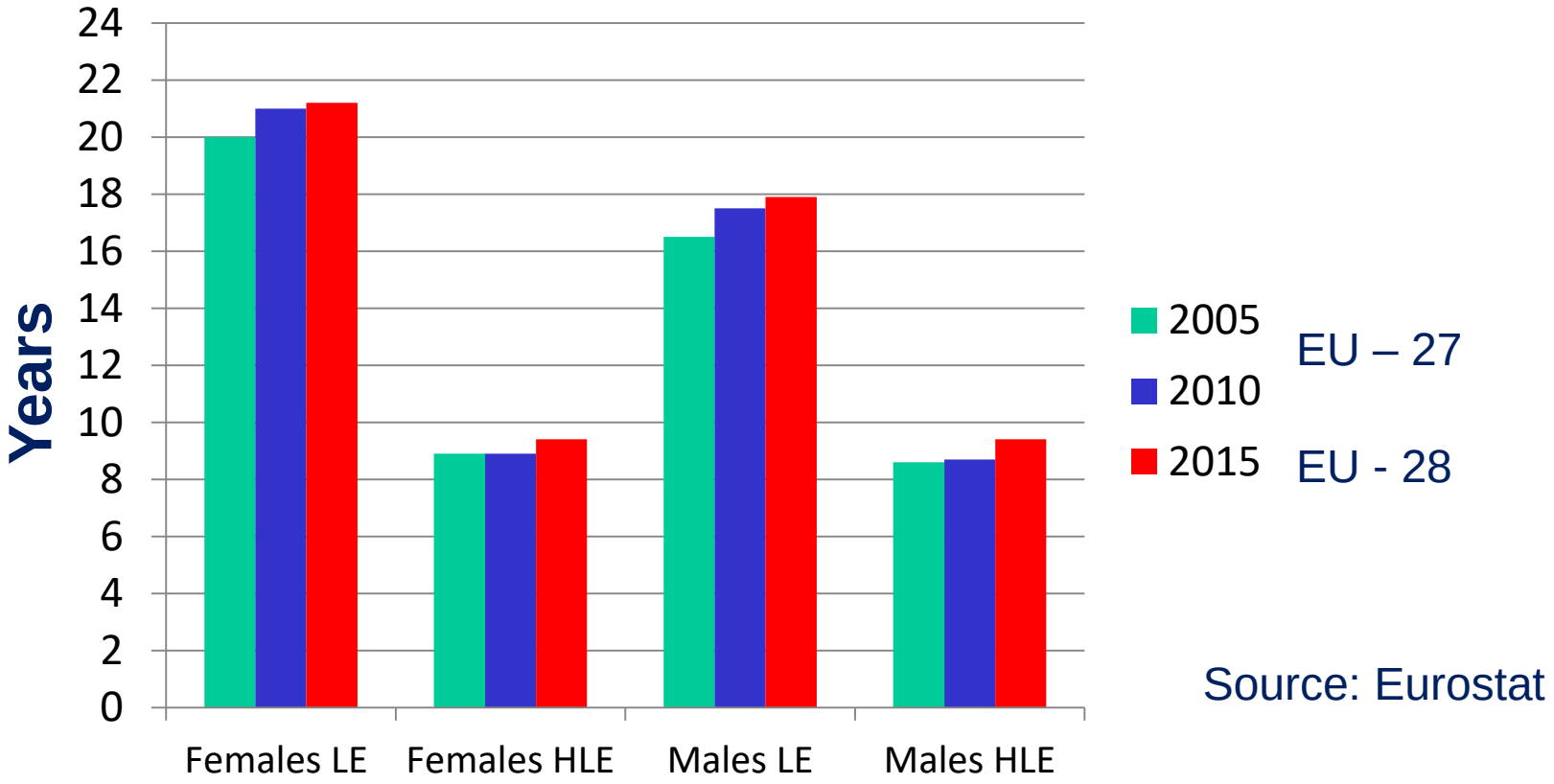
Life Expectancy (LE) and Healthy Life Expectancy (HLE) at 65 in Europe



Source: Eurostat

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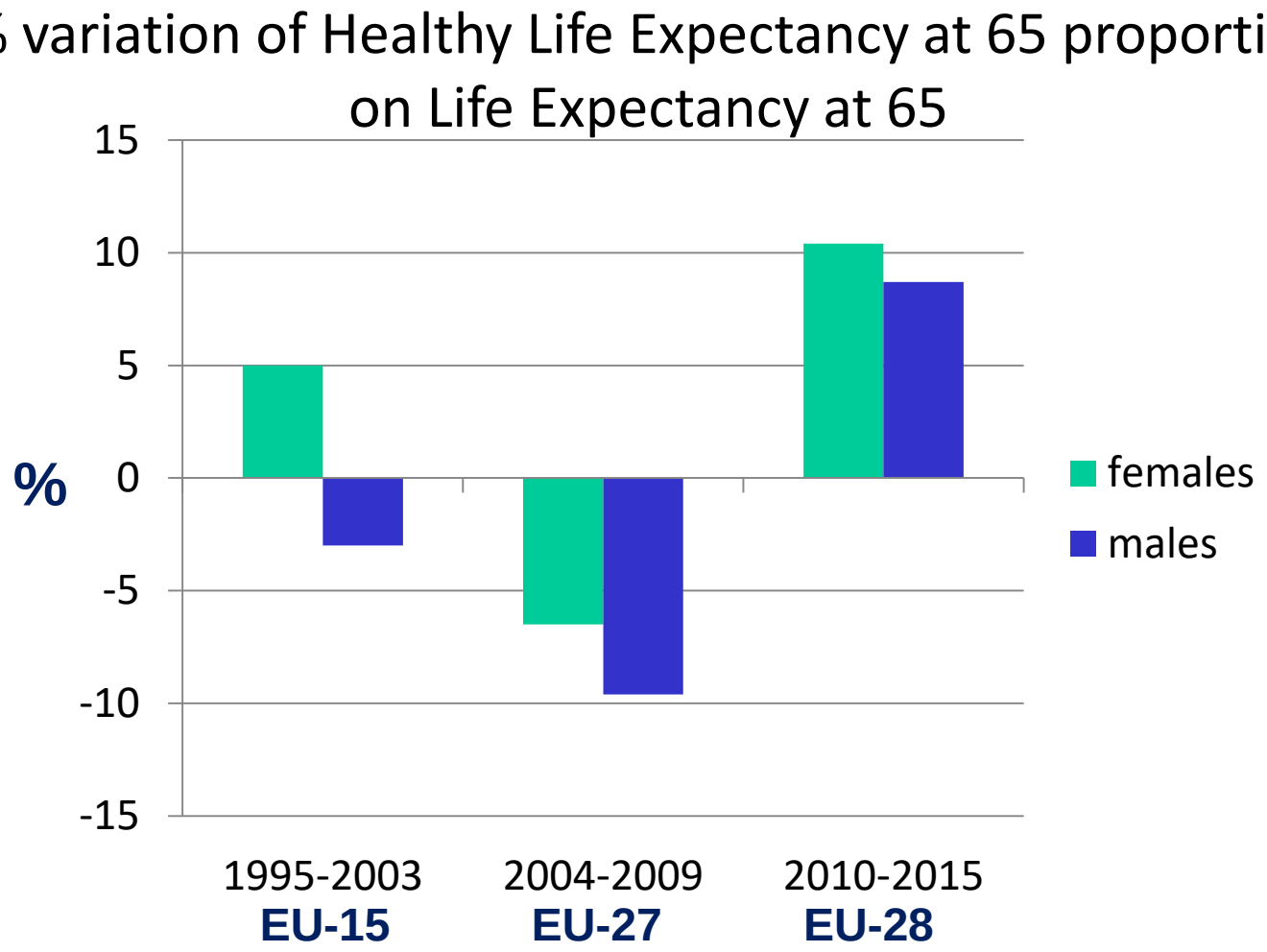

Source: LEp, University of "Tor Vergata" on Eurostat data

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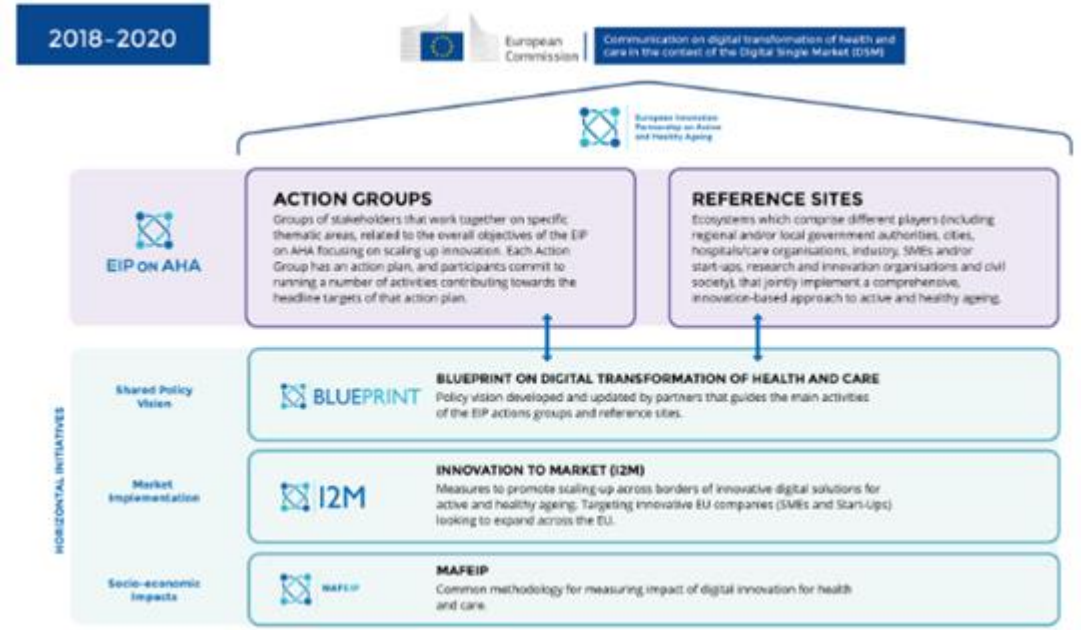
The European Innovation Partnership on Active and Healthy Ageing



- Improving the health and quality of life of Europeans with a focus on older people;
- Supporting the long-term sustainability and efficiency of health and social care systems;
- Enhancing the competitiveness of EU industry through business and expansion in new markets

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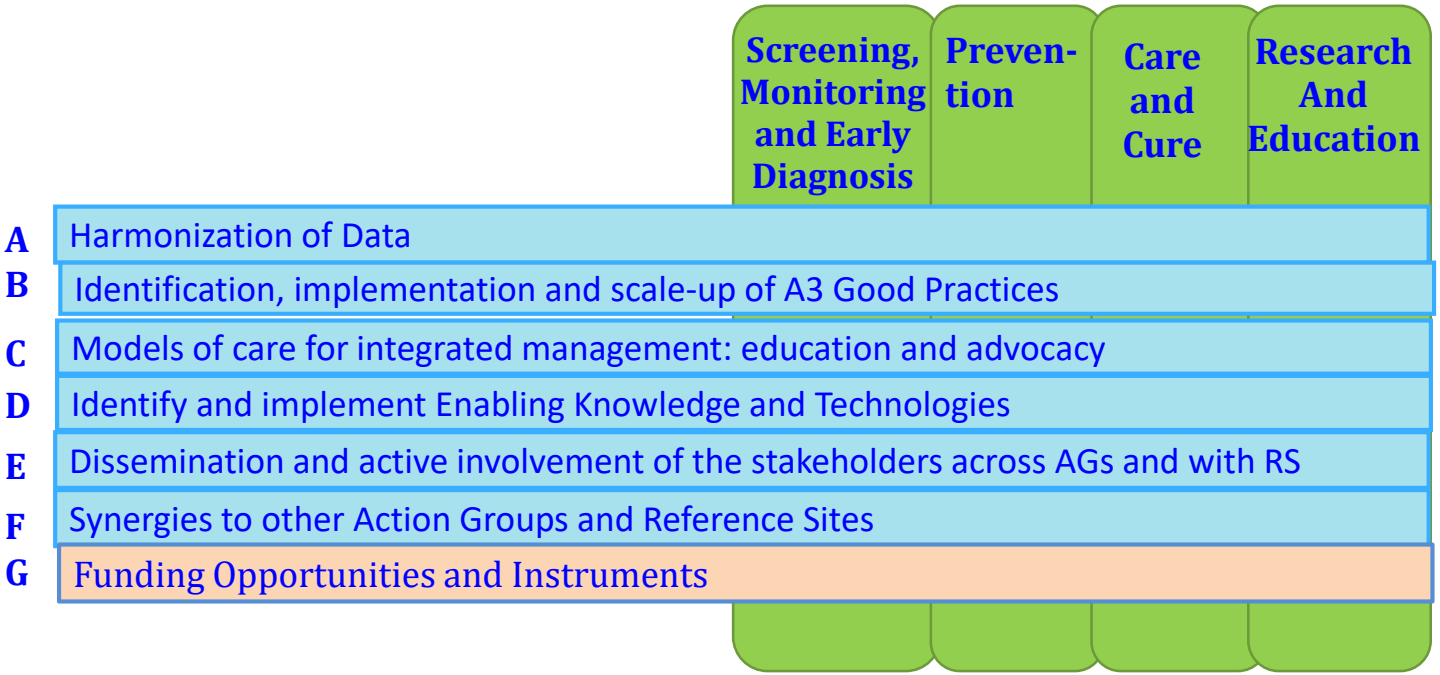
The European Innovation Partnership on Active and Healthy Ageing

A3 Action Group on Lifespan Health Promotion & Prevention of age related frailty and disease



A3 Matrix of Collaborative Work

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A3 Action Group - a strong coordination team

Action Area	CAREGIVERS	COGNITIVE DECLINE	FRAILTY	FOOD and NUTRITION	PHISICAL ACTIVITY
Coordinator	Constança Paul constancapaul@gmail.com	Antonio Cano Antonio.Cano@uv.es	Marcello Maggio marcellogiuseppe.maggio@unipr.it	Regina Roller regina.roller-wirnsberger@medunigraz.at	Miriam Vollenbroek m.m.r.hutten@utwente.nl
Co- Coordinator	Ronan O'Caoimh ronan.ocaoimh@nuigalway.ie	Carol Holland c.holland1@aston.ac.uk	Giuseppe Liotta giuseppeliotta@hotmail.com	Edwig Goossens edwig.goossens@centerforgastrology.com	Sandra Pais sandra.rafael.pais@gmail.com
Co-Coordinator	Francisco Orfila forfila.bcn.ics@gencat.cat	Isabel Varela-Nieto varela@iib.uam.es	Marta Castro Martacr2003@yahoo.es	Maddalena Illario illariomaddalena@gmail.com	Carlotta Chiari Carlotta.chiari@univr.it
Co-Coordinator	Pasquale Riccio pasriccio@gmail.com		Pasquale Abete p.abete@unina.it		*Federico Schena* federico.schena@univr.it
Co-Cordinator	Veronica Zavagli veronica.zavagli@ant.it		Silvia Ussai Ussai.silvia@gmail.com		*Alberto Jorge Carvalho Alves* ajalves@ismai.pt
Co-Cordinator			Livio De Nardi Livio.denardi@lispa.it		*Ana Maria Teixeira* ateixeira@fcdef.uc.pt
Co-Cordinator			Guido Iaccarino giaccarino@unsa.it Henning Boje Andersenhebq@dtu.dk		

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The **priority** is to prevent or delay the functional decline

The key point is to identify the ones at higher risk of functional decline in order to plan effective intervention

The approach based on diseases is no longer effective since we have to deal with individuals affected by different combinations of diseases with different diseases' severity:

thousands of combinations!

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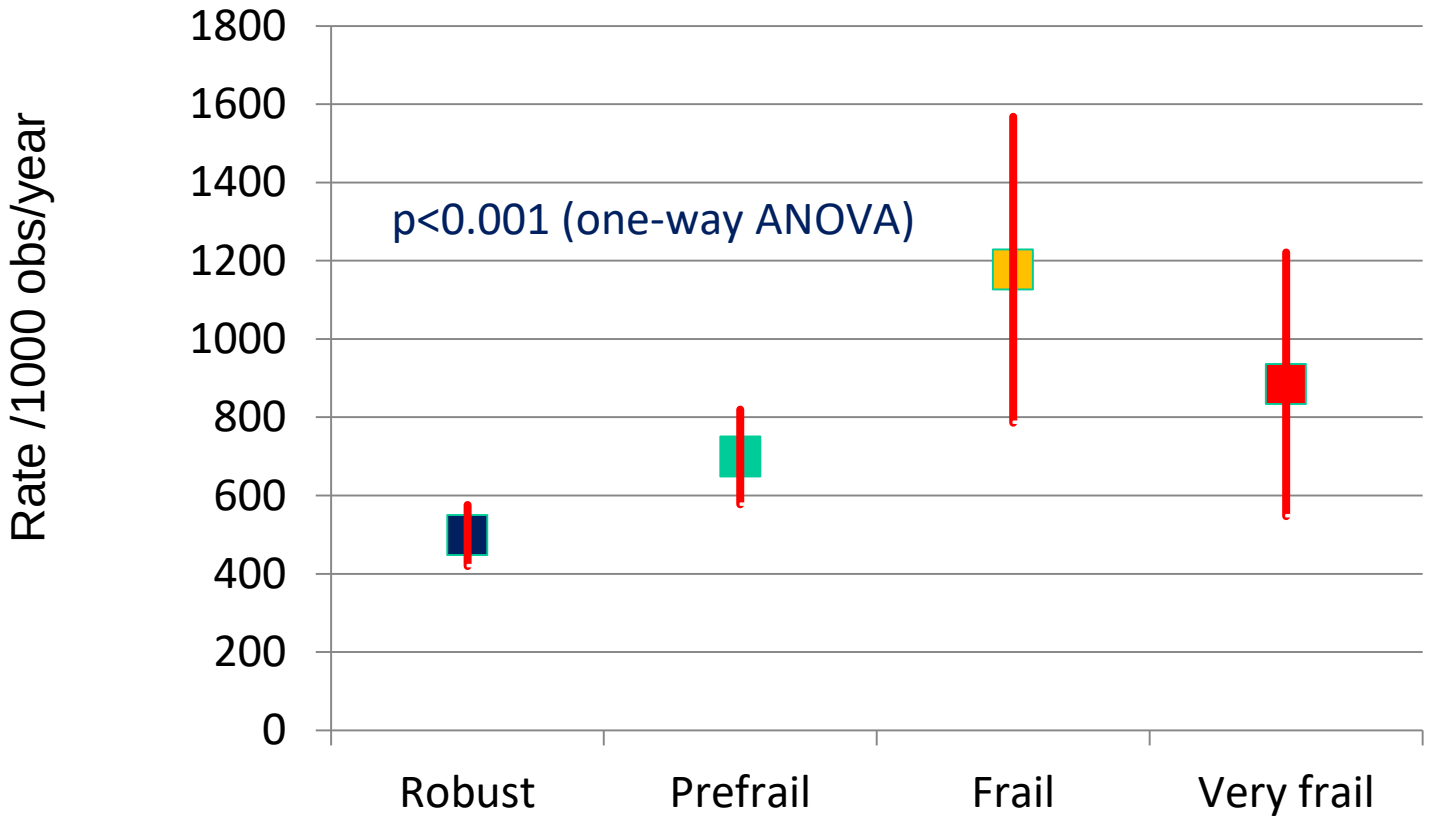
Use of Hospital Services (rate & CL95%) - 1 year follow-up

Lazio Regional Cohort – Hosp Adm.s + ED accesses + DH accesses; sample 1,342 community-dwelling over-65



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Determinants of Use of Hospital Services - 1 year follow-up (Lazio Regional Cohort – Hosp Adm. + ED accesses + DH accesses)

Multivariate Logistic Regression Analysis

R^2 (Nagelkerke) = 0.83

Outcome variable: being part of cluster 1 (Use of Hospital services rate=957/1000 p/y
being part of cluster 0 (Use of Hospital services rate=594/1000 p/y

Variables	OR	CL 95%	
		Lower	Upper
Functional status (Any impairment vs no impairment)	19.49	9.37	40.55
Social support (Any impairment vs no impairment)	12.70	6.51	24.74
Physical Health (Any impairment vs no impairment)	3.12	1.30	7.08
Availability of home care	5.75	2.74	12.01
Energy and drive (Normal, hypoactive, hyperactive)	8.74	4.01	18.76
Dental Disease	2.43	1.01	5.37

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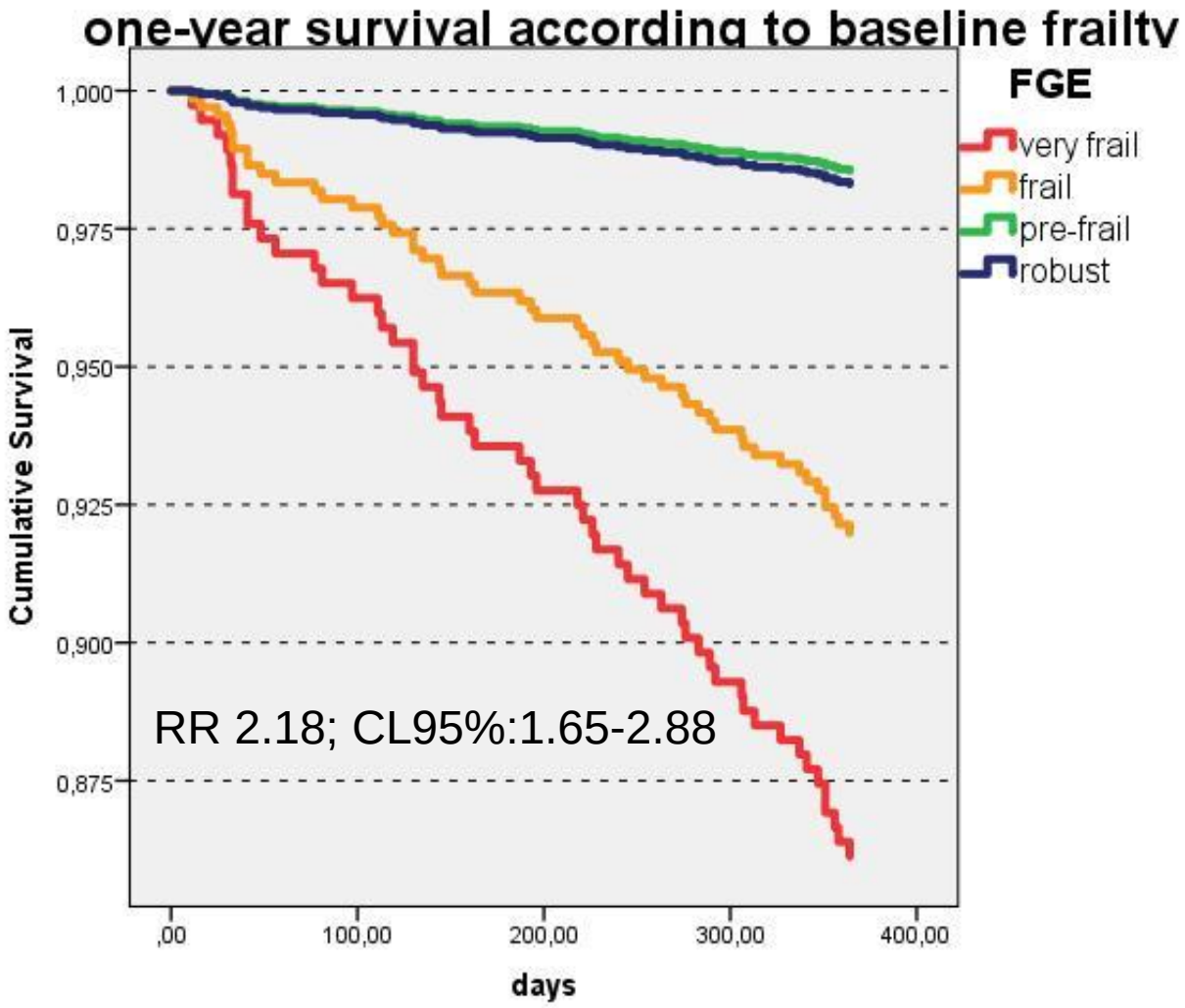

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Multidimensional Frailty

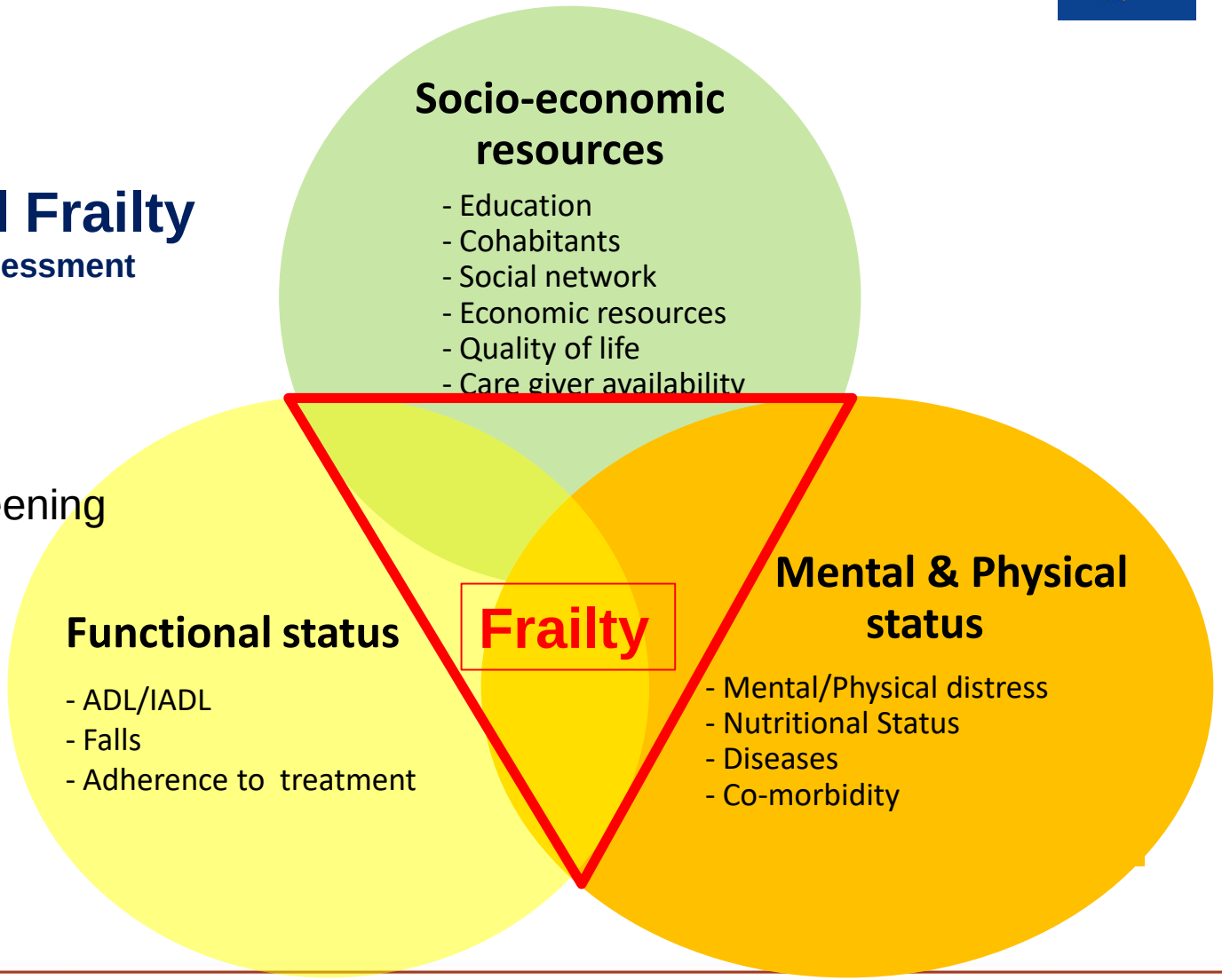
First level tools for quick assessment

- **SUNFRAIL tool**
- **RISC**

Risk Instrument for Screening in the Community

- **SFGE**

Short Functional Geriatric Evaluation



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Factors associated to frailty , 2016-2017 A3 group contribution

	Hosp Admissions	ED visits	Medical Visits	Impairment in ADL/IADL	Advanced medical diseases	Caregiver ability	Sarcopenia	Multimorbidity	Quality of Life	Malnutrition	Socio-economic Resources	Gender	Residential care	Neuro-cognitive impairment
Coto Montes & coll							X							
Domenech-Abella & Coll											X			
Fernandes & coll										X				
Gilardi & Coll	X	X	X	X										
Liotta &Coll				X							X			X
O'Caoimh & coll						X								
Olaya & coll	X	X	X	X	X				X					
Orfila & coll	X					X							X	
Pereira & coll				X									X	
Pires & coll				X										
Raggi & coll												X		
Rapacciuolo & coll										X↓	X↓			
Rico-Uribe & coll										X↓	X			
Rodriguez & coll								X						
Shaw & Coll											X			X
Teixeira & coll					X	X							X	

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Frailty is associated to negative outcomes

The management of frailty at community level could improve the individual quality of life and/or reduce the demand for care services?

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Romera-Liebana & coll. Effects of a primary-care based multifactorial intervention on physical and cognitive function in frail, elderly individuals: **a randomized controlled trial**: J Gerontol A Biol Sci Med Sci 2018 Jan 16. doi: 10.1093/gerona/glx259

- Intervention: (duration 3 months)
  - Exercise training
  - Intake of hyperproteic nutritional shakes
  - Memory training,
  - Medication review.
- Sample of 345 over 65, non-frail individuals
- Follow up at 3 and 18 months
- Results
  - **Improving of handgrip strengths**
  - **Improving of Short Physical Performance Battery score**
  - **Improving of neurocognitive batteries**
  - **Reduction of drug prescriptions**

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Behm & coll. **Health Promotion Can Postpone Frailty: Results from the RCT *Elderly Persons in the Risk Zone*** Public Health Nursing, https://doi.org/10.1111/phn.12240

- Intervention:
  - preventive home visit or multiprofessional senior group meetings.
- Sample of 459 over-80, non-frail individuals
- Follow up at 1 and 2 years
- Results
  - Both interventions showed **favorable effects in postponing the worsening of physical condition**

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Liotta & coll. Social Interventions to Prevent Heat-Related Mortality in the Older Adult in Rome, Italy: A Quasi-Experimental Study . Int. J. Environ. Res. Public Health **2018, 15, 715;**

- Intervention: Long Live the Elderly program – Community of Sant'Egidio
  - Frailty screening
  - Pro-active approach to reach all the over-75 living in the target area
  - Counteract social Isolation at individual level
  - Increase social capital at community level by setting a network of relationship around the frail individual
  - Personalized care plan with the involvement of home care services if needed
  - Periodical phone monitoring intensified during heat or cold wave
- Sample 6481 cases vs 5724 controls matched for age and gender
- Results:
  - **50% reduction of mortality increase among the cases vs the controls during the summer 2015 heat waves**
  - **Annual reduction of 10% of hospitalization among a sub-sample of 406 over-75 individuals**
  - **Annual reduction of 40% of Institutionalization on a sub –sample of 1,408 over-75**
  - **Annual reduction of 5-12% of cumulative acute and long term care cost**

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Apóstolo & coll. Effectiveness of interventions to prevent pre-frailty and frailty progression in older adults: **a systematic review.** JBI Database System Rev Implement Rep 2018; 16(1):140–232

- Intervention:
  - Physical exercise Program
  - Nutritional supplementation
  - Cognitive training
  - Combination of intervention
  - Hormone supplementation
  - Problem solving
  - Individually tailored management of clinical conditions
- Sample 5275 non-frail, pre-frail and frail older adults from 21 RCT
- Results: **Physical exercise programs were shown to be generally effective for reducing or postponing frailty but only when conducted in groups.** Favorable effects on frailty indicators were also observed after the interventions, based on **physical exercise with supplementation, supplementation alone, cognitive training and combined treatment.**

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- The management of frailty at community level is able to improve the older adults quality of life
- **Likely, it is also able to reduce the use of care services**
- **Possibly, the management of frailty could reduce the cost of care**
- What is working
  - ❑ Health promotion (control of the well known risk factors)
  - ❑ Physical activities
  - ❑ Nutritional interventions
  - ❑ Cognitive program
  - ❑ Drug schedule revision
  - ❑ Social care
- Combination of intervention could be more effective than single ones
- Integration of social and health care at primary level could promote an effective synergy

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Who is the ideal target of the Health Promotion Activities to prevent the onset of frailty or to mitigate its impact on individuals' health?

- **NON-frail individuals**
- **frail individuals**
- **over-50 population: lifespan approach to health promotion &prevention as suggested by WHO**

Who is the ideal target of frailty screening?

- **over-75 population**
- **over 65 population (it depends from the setting)**

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What components of the model should be implemented?

Integrated social and health care

Combination of interventions

Health promotion activities on well known risk factors (special attention to be given to the caregivers)

What role for ICT devices?

ICTs must be embedded in effective community services to optimize their contribution

ICT devices cannot support independent living alone, in most of the cases

Who should implement the model at community level?

the integration should be managed by personnel trained for working on the border between social and health care

- **Community nurses**
- **Social workers**
- **Social Operators**

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What models are already (or are going to be) implemented on the basis of a public health approach?

- **The Advantage JA**
  - **to provide suggestions on the model to be implemented**
- **The Sunfrail Project**
  - **Integrated health care model based on the screening of frailty**
- **The CoNSENSo Project**
  - **Community nurses pro-active intervention**
- **The Adapted Physical Activity program**
  - **Group of adults and older adults involved in periodical adapted physical activity program**
- **The Lazio Regional Model**
  - **Integration of Community-based pro-Active social Monitoring Program with Community Nurses activities**
  - **Heat Response Plan: active summer surveillance of elderly susceptible to heat waves by GPs**

THANKS FOR YOUR ATTENTION

(giuseppe.liotta@uniroma2.it
giuseppeliotta@hotmail.com)