Coordination meeting for Health Programme projects and the Joint Action focusing on frailty of older persons

SUNFRAIL

University of Valencia

Emilia-Romagna Region
Mirca Barbolini – Marcello Maggio

Valencia, 28 th. June 2017

SUNFRAIL Project

Promoted by a **network of Italian Reference Sites** of the **European Innovation Partnership on Active and Healthy Ageing (EIP-AHA)**

3rd EU Health Programme - WP 2014

- To share experiences, good practices and tools to identify and manage **frailty** and **multimorbidity**

- **Italian Ministry of Health: Progetto Mattone Internazionale**

The Partnership

PARTNER	ORGANISATION	ACRONYM
RS LP1	Regione Emilia-Romagna - Agenzia Sanitaria E Sociale Regionale, Italy	(RER-ASSR)
	Aster - Societa Consortile Per Azioni, Italy	(ASTER)
RS PP2	Regione Piemonte, Italy	(RHAP)
RS PP3	Regione Liguria, Italy	(LIGURIA)
	Galliera Hospital	Affiliated
RS PP4	Azienda Ospedaliera Universitaria Federico II Campania, Italy	
RS PP5	Centre Hospitalier Universitaire De Toulouse, France	(GERONTOPOLE)
RS PP6	Centre Hospitalier Universitaire Montpellier, France	(CHRU)
RS PP7	Universytet Medyczny W Lodzi, Poland	(LODZ)
RS PP8	Universidad De La Iglesia De Deusto, Spain	(DEUSTO)
RS PP9	Regional Health & Social Care Board Of Northern Ireland, United Kingdom	(HSCB)
PP10	European Regional And Local Health Authorities Asbl, Belgium	(EUREGHA)
RS PP11	CARSAT Languedoc Roussillon, France	(CARSAT)

Collaborating:
- **EIP-AHA Action Groups: A3, B3**
- **International Scientific Research Networks on frailty and disability (IAGG-GARN)**

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General Objectives

To improve the **identification**, **prevention** and **management** of **frailty** and care of **multimorbidity** in **community dwelling persons** (**over 65**) of EU countries

Specific Objectives

1. To design an **innovative, integrated model** for the **prevention and management of frailty and care of multimorbidity**

2. To **validate the model: assess** existing **systems and services** targeting frailty and multimorbidity – citizen's/**patient**'s perceptions and needs

3. To assess the **potential for the adoption/replication** and **sustainability of the model** (**tools & good practices**) in different organizational contexts

4. To **promote the dissemination** of the results (decision makers - regional, national, EU level)

Definition of Frailty

Biomedical vs. Bio-Psychosocial Model

Biomedical

- **Biological**: Age, sex

- **Health-diseases**

- **Life Styles**: physical

  activity, nutrition...

- **Risk Factors**: smoke,
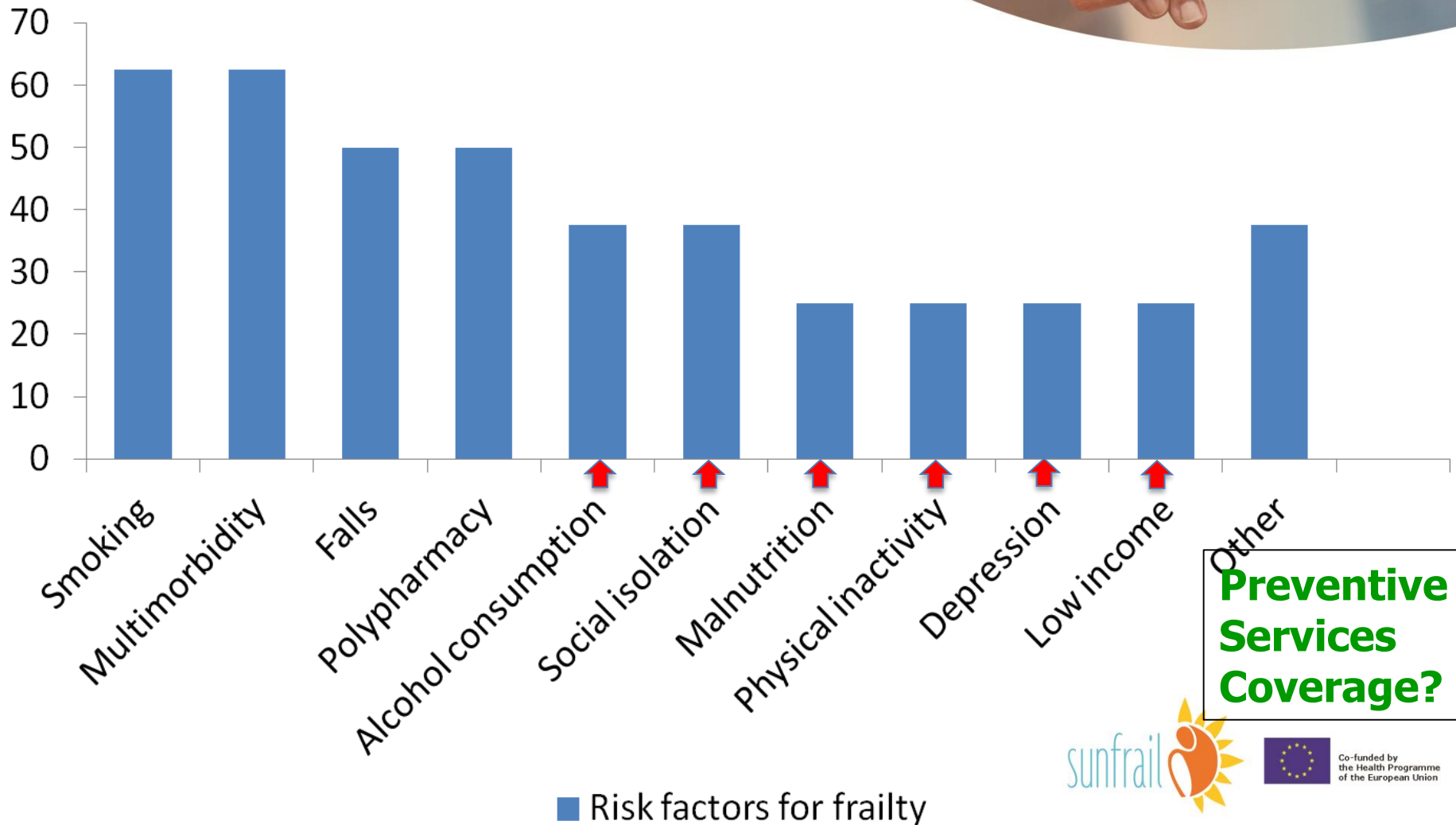
  alchool..

Psyco-Social
- **Well being** (physical, psychological)
- **Independent living**
- **Socialization**
- **Resources**: health care, social interaction, sport, leisures

- **Early Identification**

- **Prevention of Disability**

Systematic Assessment of Risk factors for Frailty
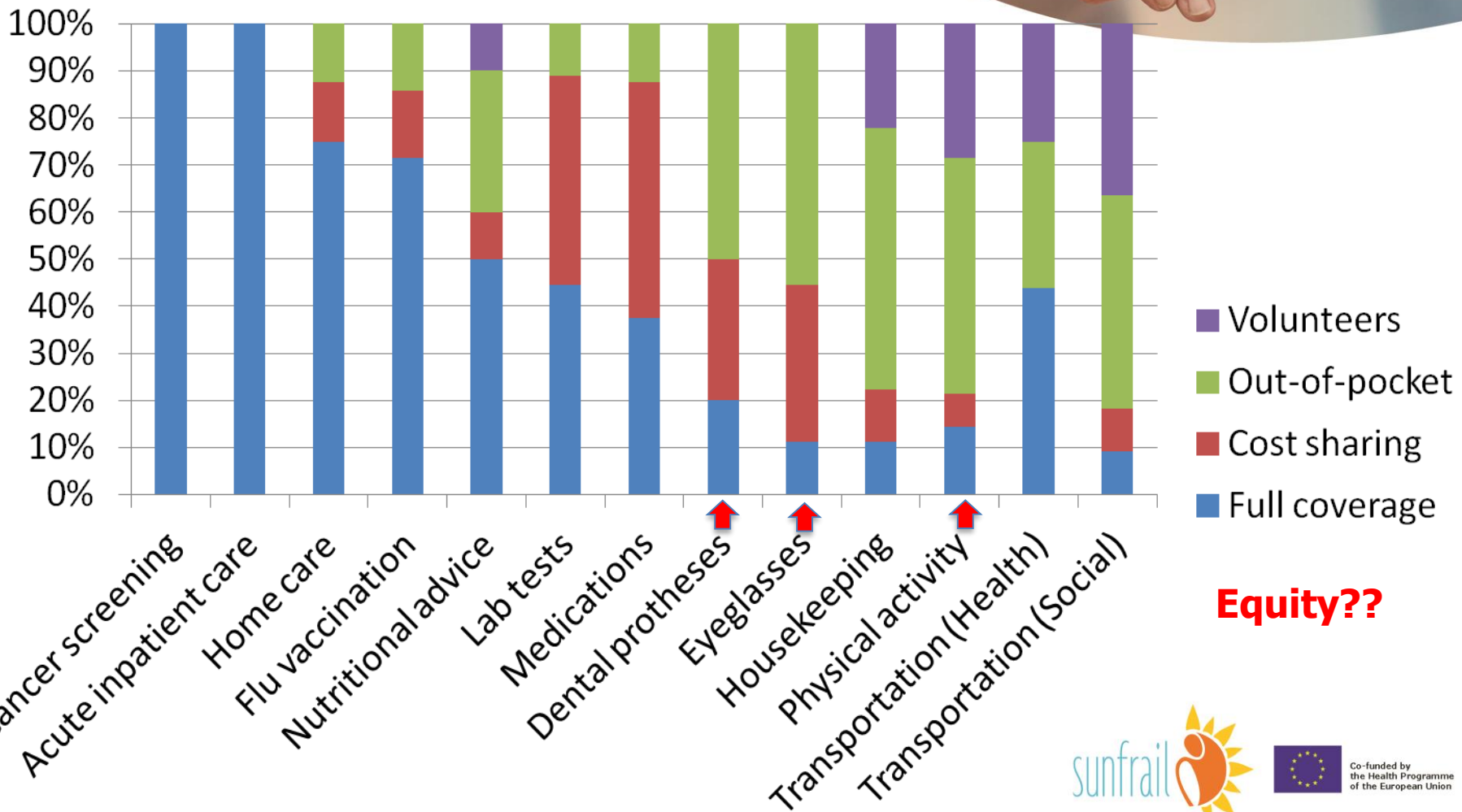## Sunfrail Reference Sites

Preventive Services Coverage?

Risk factors for frailty

Health and Social Services Coverage (65 years and over)
Sunfrail Reference Sites

Legend:
- Volunteers
- Out-of-pocket
- Cost sharing
- Full coverage

Categories: Cancer screening, Acute inpatient care, Home care, Flu vaccination, Nutritional advice, Lab tests, Medications, Dental protheses, Eyeglasses, Housekeeping, Physical activity, Transportation (Health), Transportation (Social)
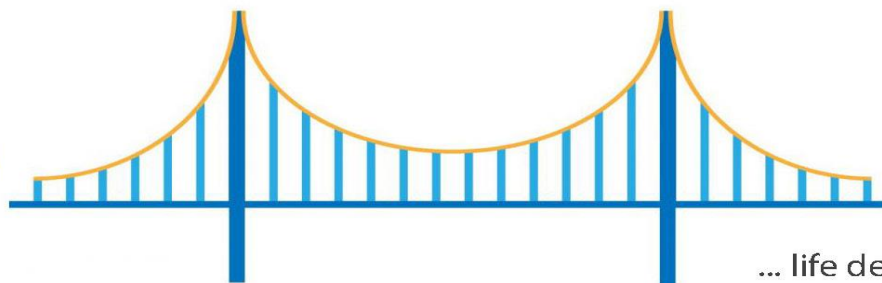
Equity??

Beneficiaries Perception of Frailty and Barriers to Care
Bridging the Gap

Need for independence —————— FRAILTY? —————————— State of...

* playing with grandsons
* driving * dancing * walking

... life decline and extreme vulnerability characterized by weakness and decreased physiologic reserve contributing to increased risk for falls, institutionalization, disability, death.

- **Risk Factors**
- **Prevention**
- **Cultural, organizational barriers to services**
- **Multidisciplinary approach**

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Sunfrail Pre-Model of Care on Frailty and Multimorbidity
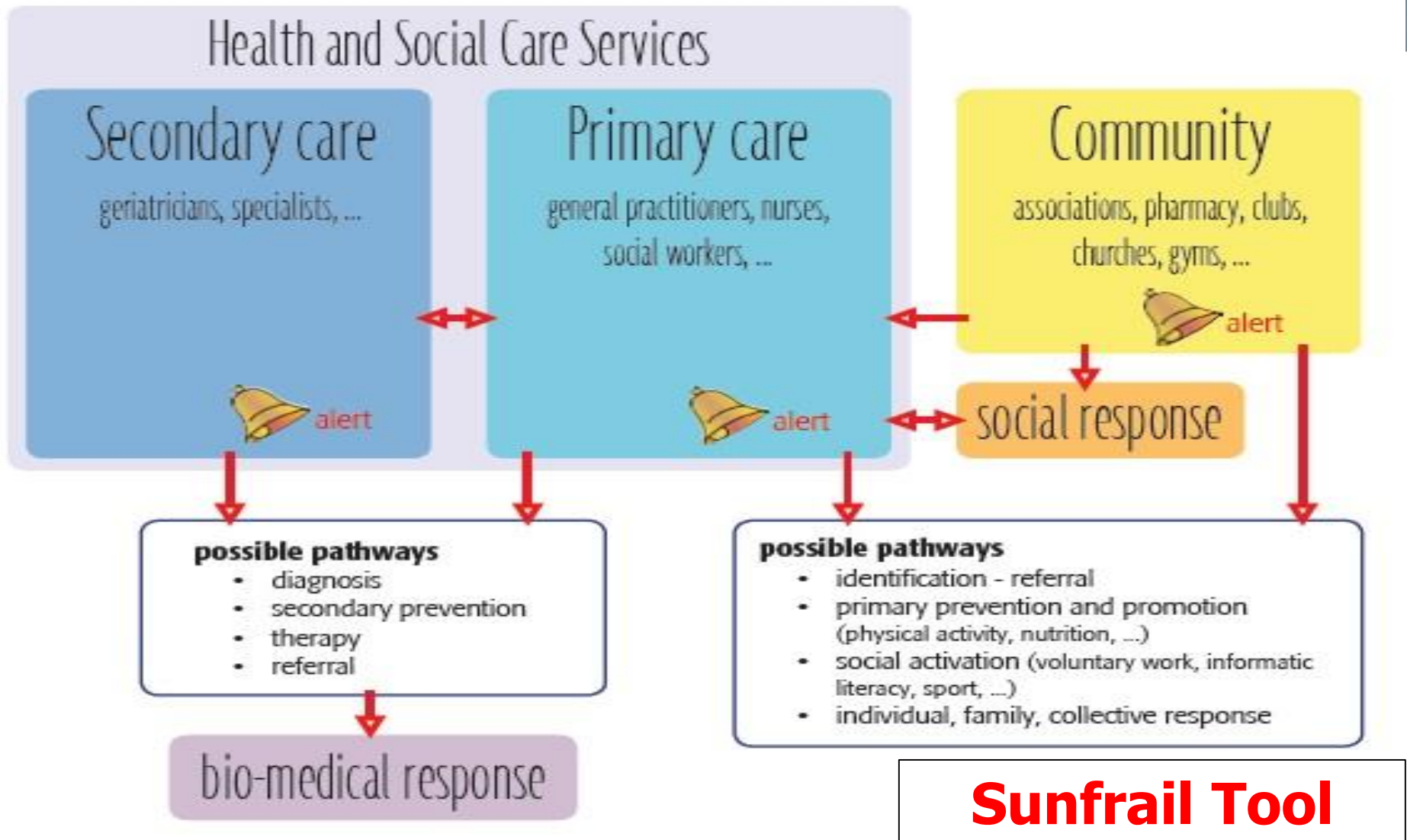
Sunfrail Tool

Sunfrail Tool

QUESTIONNAIRE NUMBER		ID
Date and place		

PROFESSIONALS		
	□ Nurse □ GPs □ Other Professionals	
Professional	□ Social Worker □ Community Actor □ Caregiver	

BENEFICIARIES		

Gender	Age		Level of education
□M	□65-74		□ Low (Without studies, Primary School)
□F	□75-85		□Medium (Secondary school, or vocational degree)
			□ High (University, Master or PhD degree)

Questions		
1. Do you regularly take 5 or more medications per day?	□ Yes	□ No
2. Have you recently lost weight such that your clothing has become looser?	□ Yes	□ No
3. Your physical state made you walking less during the last year?	□ Yes	□ No
4. Have you been evaluated by your GP during the last year?	□ Yes	□ No
5. Have you fallen 1 or more times during the last year?	□ Yes	□ No
6. Have you experienced memory decline during the last year?	□ Yes	□ No
7. Do you feel lonely most of the time?	□ Yes	□ No
8. In case of need, can you count on someone close to you?	□ Yes	□ No
9. Have you had any financial difficulties in facing dental care and health care costs during the last year?	□ Yes	□ No

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Sunfrail Tool - Preliminary Results

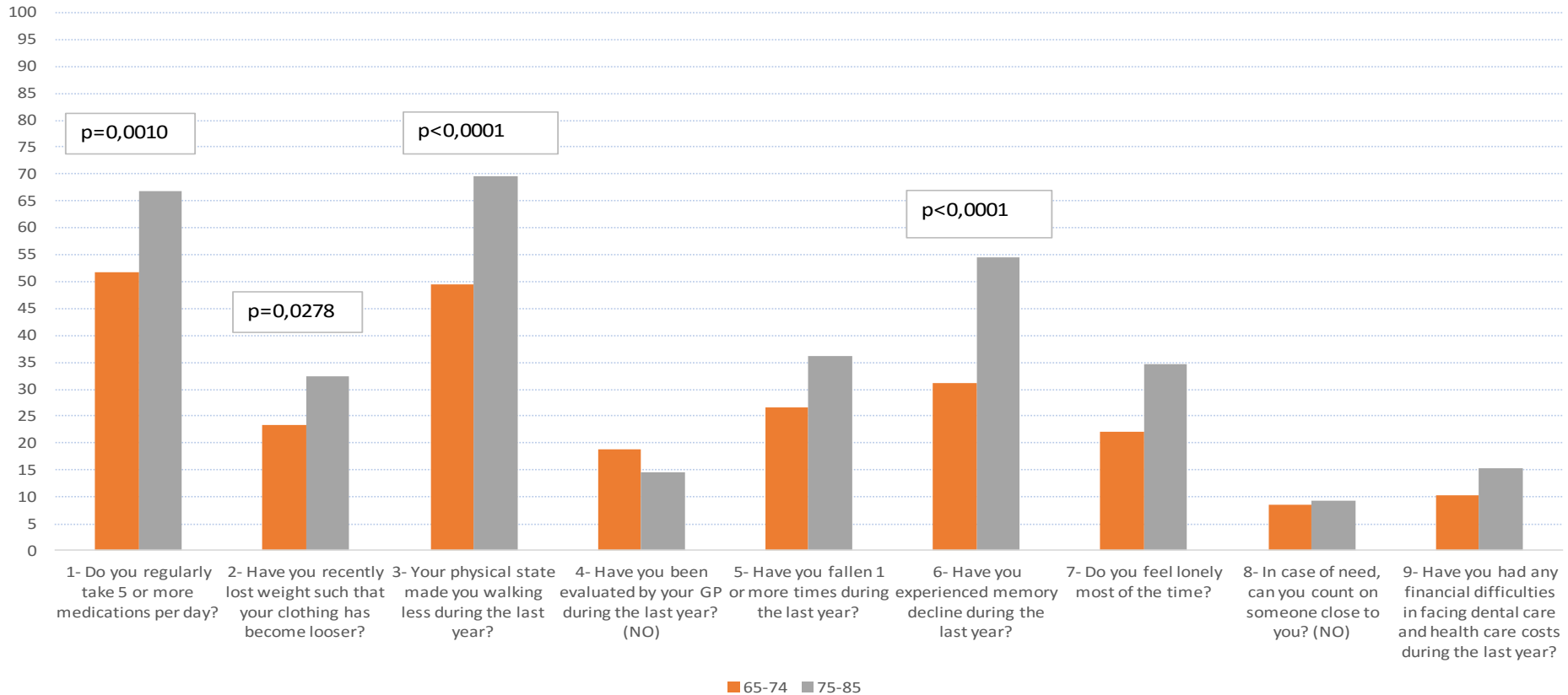| Study Population	n. 481	
Reference Site	n	%
Deusto University, Spain	139	28,90
HSCB, Northern Ireland	127	26,40
Medical University of Lodz, Poland	114	23,70
University of Naples Federico II	101	21,00
Beneficiaries		
Gender		
F	330	68,61
M	151	31,39
Age Group	481	
65-74	176	36,59
75-85	305	63,41
Education Level	481	
High (University, Master or PhD degree)	75	15,59
Medium (Secondary school, or vocational degree)	173	35,97
Low (Without studies, Primary School)	233	48,44

Sunfrail Tool - Preliminary Results
(n. 481)

| Questions	n. Positive Answers	%	(95% CI)
1- Do you regularly take 5 or more medications per day?	295	61,33	(56,91-65,58)
2- Have you recently lost weight such that your clothing has become looser?	140	29,11	(25,22-33,32)
3- Your physical state made you walking less during the last year?	299	62,16	(57,75 - 66,38)
4- Have you been evaluated by your GP during the last year? (**NO**)	77	16,01	(12,99 - 19,56)
5- Have you fallen 1 or more times during the last year?	157	32,64	(28,61 - 36,96)
6- Have you experienced memory decline during the last year?	221	45,95	(41,54 - 50,41)
7- Do you feel lonely most of the time?	145	30,15	(26,21 - 34,39)
8- In case of need, can you count on someone close to you? (**NO**)	43	8,94	(6,68 - 11,85)
9- Have you had any financial difficulties in facing dental care and health care costs during the last year?	65	13,51	(10,73 - 16,87)

Sunfrail Tool - Preliminary Results

% of Positive Items by Age Group

p=0,0010

p<0,0001

p=0,0278

p<0,0001

Legend: 65-74 (orange), 75-85 (grey)

Items:
1- Do you regularly take 5 or more medications per day?
2- Have you recently lost weight such that your clothing has become looser?
3- Your physical state made you walking less during the last year?
4- Have you been evaluated by your GP during the last year? (NO)
5- Have you fallen 1 or more times during the last year?
6- Have you experienced memory decline during the last year?
7- Do you feel lonely most of the time?
8- In case of need, can you count on someone close to you? (NO)
9- Have you had any financial difficulties in facing dental care and health care costs during the last year?

Sunfrail Tool - Preliminary Results

% of Positive Items by Education Level
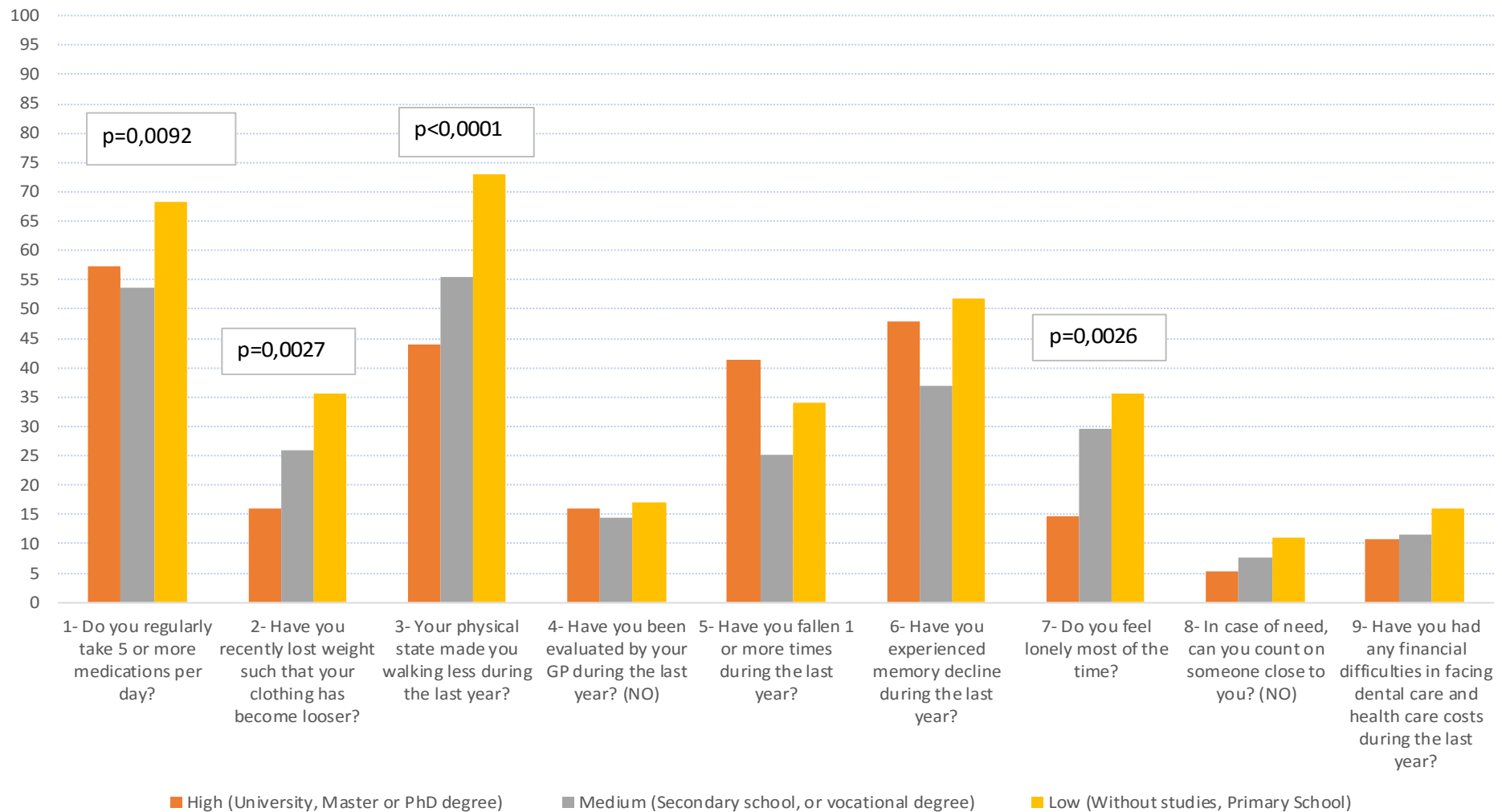
Sunfrail Tool - Preliminary Results

Domains	Positive Answers					
	n. Answers	%	n. Persons	% (of 481)	Score Frailty (0-1)*	Standard Deviation
Biological (max 5 positive answers)	968	67,13	437	90,85	0,403	0,226
Neuro-Psychological (max 2 positive answers)	366	25,38	278	57,80	0,380	0,370
Socio-Economic (max 2 positive answers)	108	7,49	96	19,96	0,112	0,237
Total (max 9 positive answers)	1442	100,00	453	94,18	0,333	0,191
*n. Positive Answers /max n. Positive Answers						

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Sunfrail Tool - Preliminary Results

Suggested Pathways	n	%	95% CI
Request GP visit	118	24,53	(20,90-28,57)
Request specialist-Geriatrician evaluation	152	31,60	(27,60-35,89)
Diagnostic evaluation	60	12,47	(9,80-15,74)
Proactive &Preventive Intervention			
Physical Exercise	237	49,27	(44,83-53,73)
Psychological and/or Cognitive support	186	38,67	(34,42-43,10)
Social Support	189	39,29	(35,03-43,73)
Other Pathways	148	30,07	(26,81 - 35,04)
Relevant but not available	14	2,91	(1,71-4,87)
Non-relevant	172	35,76	(31,60-40,14)

The Application of the Sunfrail Tool in other EU Projects: Consenso* - Community nurse supporting elderly in a changing society

| Questions (Consenso)	n. Positive Answers	% (1740)
1- Do you regularly take 5 or more medications per day?	NA	NA
2- Have you recently lost weight such that your clothing has become looser?	222	13
3- Your physical state made you walking less during the last year?	639	37
4- Have you been evaluated by your GP during the last year? (**NO**)	166	9,5
5- Have you fallen 1 or more times during the last year?	387	22
6- Have you experienced memory decline during the last year?	655	38
7- Do you feel lonely most of the time?	NA	NA
8- In case of need, can you count on someone close to you? (**NO**)	149	8,60
9- Have you had any financial difficulties in facing dental care and health care costs during the last year?	474	27

Questions (Sunfrail)	n. Positive Answers	% (481)
1- Do you regularly take 5 or more medications per day?	295	61,33
2- Have you recently lost weight such that your clothing has become looser?	140	29,11
3- Your physical state made you walking less during the last year?	299	62,16
4- Have you been evaluated by your GP during the last year? (**NO**)	77	16,01
5- Have you fallen 1 or more times during the last year?	157	32,64
6- Have you experienced memory decline during the last year?	221	45,95
7- Do you feel lonely most of the time?	145	30,15
8- In case of need, can you count on someone close to you? (**NO**)	43	8,94
9- Have you had any financial difficulties in facing dental care and health care costs during the last year?	65	13,51

*Countries: Italy, France, Slovenia, Austria

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The SUNFRAIL questionnaire and the CARSAT-LR adaptation

SUNFRAIL questionnaire	CARSAT-LR adaptation
1. Do you regularly take 5 or more medications per day?	1. *Not applicable*
2. Have you unintentionally lost weight during the past year such that your clothing has become looser?	2. Have you unintentionally lost weight during the last three months?
3. Has your physical state made you walk less during the past year?	3. Have you any difficulty at walking?
4. Have you been seen by your general practitioner during the past year?	4. Have you a regular medical follow-up?
5. Have you fallen one or more times during the past year?	5. During the past three months, have you fallen one or more times?
6. Have you experienced any memory decline during the past year?	6. Have you memory problems?
7. Do you experience loneliness most of the time?	7. Do you feel loneliness?
8. In case of need, can you count on someone close to you?	8. In case of need, is there anyone on whom you can count for support?
9. Have you had any economic difficulty in facing dental care and healthcare costs during the past year?	9. Would you say that your resources are sufficient to cover your healthcare needs?

Question 1 cannot be asked by the CARSAT-LR because of the social nature of the service and the legal impossibility to collect information about clinical/medical conditions.
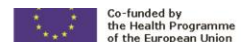
The mean values of the Quality of Life visuo-analogic scale according to the specific items composing the modified SUNFRAIL questionnaire

Table 3.	Yes	No	p
Q2. Weight loss	55.0 (27.9)	67.4 (19.7)	0.08
Q3. Slow gait	53.1 (24.2)	71.3 (17.5)	0.001
Q4. Irregular medical follow-up	75.0 (35.4)	66.1 (19.8)	0.54
Q5. Falls	47.1 (28.1)	67.5 (28.1)	0.02
Q6. Memory problems	68.3 (15.7)	64.0 (23.8)	0.47
Q7. Lack of social network	63.7 (17.2)	67.5 (25.7)	0.49
Q8. Loneliness	66.7 (19.7)	66.3 (20.3)	0.97
Q9. Budget issues	64.3 (21.2)	95.0 (7.1)	0.04

Sunfrail Main Outcomes

Model and Tools - Potential for:

- Early detection, prevention and management of frailty and multimorbidity (primary care, community, secondary care)

- Involvement of community and final beneficiaries (assessment of risk factors) – (**empowerment/self-help**)

- Involvement of different sectors and actors

Joint planning   **Sharing Resources**

- Multidisciplinary approach by professionals

SUNFRAIL Good Practices - Criteria

1. Innovation: novelty (product, process, tools, ICT), etc.

2. Duration-State of Art: length of implementation; new practice or continuation/improvement of a previous action

3. Stakeholders Involved: e.g. University-Research Institutes, Institutions responsible for planning and implementing services, patients/citizens groups

4. Law/Regulation Scenario: existing regional and/or national laws coherent with the local GPs

5. Deliverables (guidelines, models, ICT tools, report, questionnaire, database, tranining)

6. Transferability (experience of replication-regions, districts)

33 GPs Identified!!

SUNFRAIL Dissemination

Dissemination Events

Transnational workshops

- Bologna, 22 March 2016: "Understanding and caring for frailty and multimorbidity" – **Definition of Fraity**
- Naples, 27 October 2017: "Sunfrail: Toward a **Bio-Psychosocial Model** of Frailty"

- **EIP AHA B3 AG and SUNFRAIL Seminar 5 April 2017**

Foreseen:

- October 2017 - Northern Ireland

- February 2018 - **Sunfrail Final Conference?** – Bologna

Publications
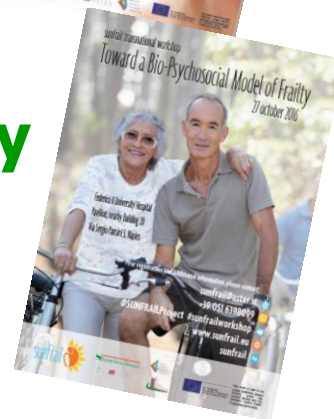
Potential for Synergies/Collaboration

ADVANTAGE

WP4 – knowing frailty at the individual level:
definition

WP6 – managing frailty:
prevention and clinical management

WP7 – models of care

WP8 – extending and expanding the knowledge on frailty

WP2 – dissemination
Marche Region – Leader – Pro.M.I.S
Sunfrail IT EIP on AHA Reference Sites

Sunfrail

WP4 – design a model
- assessment of RS health and social systems
- definition of frailty and multimorbidity
- sunfrail pre-model of care on frailty and multimorbidity (D)

WP5 – validate the Model
- beneficiaries perception and barriers to care (D)
- RS service delivery and tools (D)
- RS good practices
- Sunfrail Tool on frailty and multimorbidity (D)
- a Model on frailty and multimorbidity (D))

WP7 – design a Model and Tool for human resources development (D)

WP6 – experiment the Models and the Tools, potential adoption and sustainability (D)

Potential Synergies/Collaboration

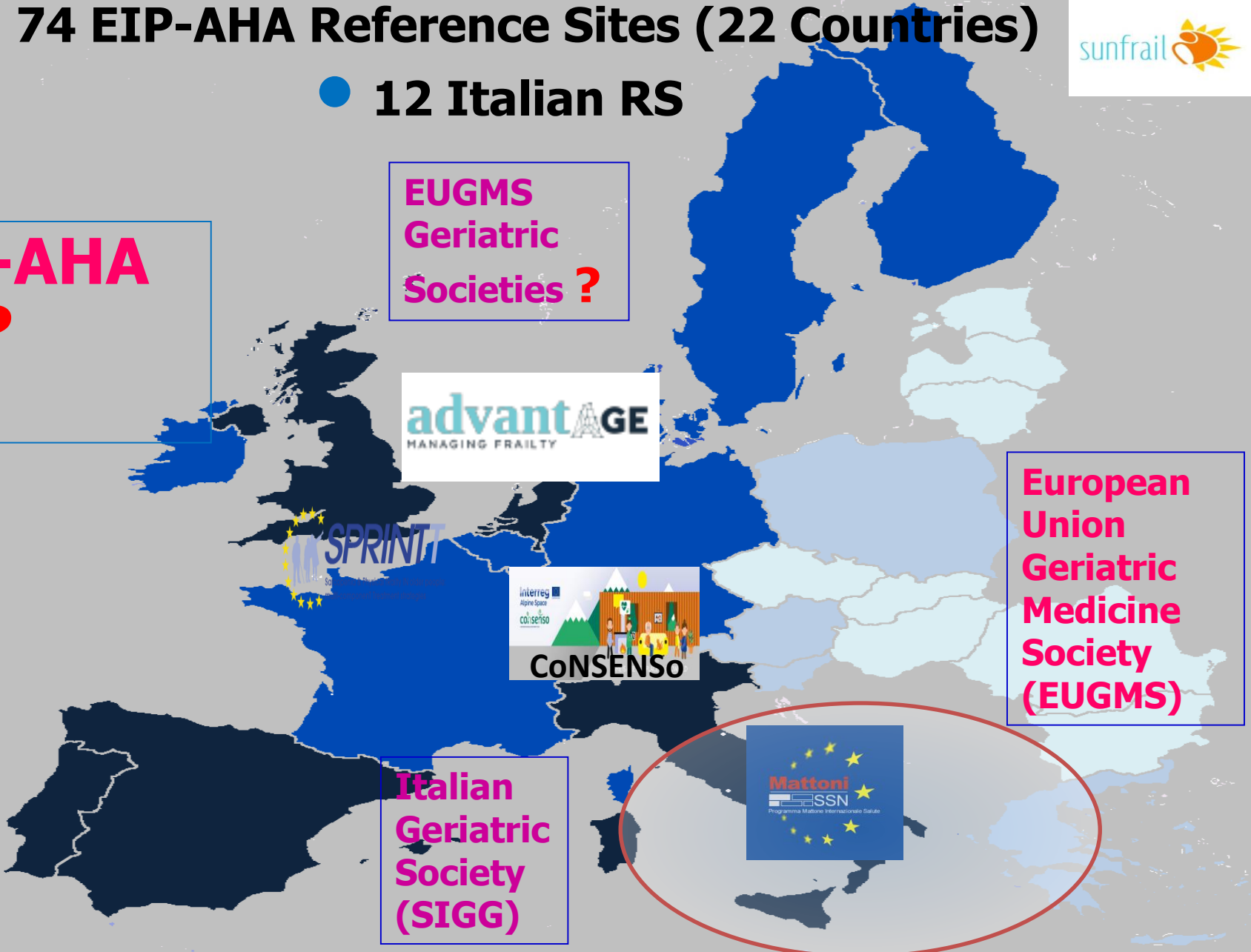- **74 EIP-AHA Reference Sites (22 Countries)**
  - **12 Italian RS**

EIP-AHA
A3 ?
B3 !

EUGMS Geriatric Societies ?

European Union Geriatric Medicine Society (EUGMS)

CoNSENSo

Italian Geriatric Society (SIGG)

1. Building up a multiprofessional working group (Geriatricians, Public Health Experts, Sociologist)
2. Selection of Items already present in other questionnaires
3. Comprehensibility and applicability of the questionnaire among professionals, volunteers of different education
4. Translation from English language into French, Polish, Spanish, and Italian Language and back translation
5. Verification of the comprehensibility of the final version of the questionnaire

Research Clinical question
Tested in preliminary data in 340 outpatients of Frailty Multimorbidity Lab of Geriatric Clinic
University Hospital of Parma
(Emilia Romagna Region)

Participants who answer yes to items number

3. **Your physical state made you walking less during the last year**
5. **Have you fallen 1 or more times during the last year.**
6. **Have you experienced memory decline during the last year.**

a. will have lower performance score in terms of 4 meters walking speed, hand grip strength and MMSE than participants who answer no?

b. the difference (if any) between these groups will be statistically significant?

Table 3. Mean Differences in cognitive and motoric parameters, stratified on positivity to Sunfrail questionnaire.

		MMSE	(SD)	p*
6. Memory decline :	YES (n=241)	20.7	6.5	
	NO (n=102)	23.9	5.2	
				<0.001
		4-m WS	**(SD)**	**p***
5. Falls during last year:	YES (n= 161)	0.46	0.35	
	NO (n=181)	0.75	0.37	
				<0.0001
		Handgrip	**(SD)**	**p***
5.Falls during last year:	YES (n= 159)	18.64	8.60	
	NO (n=182)	22.0	9.70	
				0.005
		4-m WS	**(DS)**	**p***
3.Walking less because of your physical Status:	YES (n=253)	0.53	0.37	
	NO (n=89)	0.85	0.31	
				0.0001

*Adjusted for age and sex

Prof. M.Maggio, Parma University, IT

Thank you for your attention!

www.sunfrail.eu

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