



# limits and potential of the Public Health Programme

## SUCCESS STORIES OF THE HEALTH PROGRAMME

# SUNFRAIL

Emilia-Romagna Region  
Mirca Barbolini & Team

*at the* European Parliament, Brussels, 22<sup>nd</sup> November 2017



Reference Sites Network for Prevention and  
Care of Frailty and Chronic Conditions in  
community dwelling persons of EU Countries



Co-funded by  
the Health Programme  
of the European Union

The SUNFRAIL Project has  
received funding from the  
European Union's Health  
Programme 2014-2020

# project ID



EIP on AHA context

the network of the **Italian Reference Sites**

**3<sup>rd</sup> EU Health Programme - WP 2014**

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



**Italian context**

Ministry of Health, **Progetto Mattone Internazionale**



# the partnership



partner	organisation	acronym
RS LP1	<b>Regione Emilia-Romagna</b> – Agenzia Sanitaria e Sociale Regionale – I	RER-ASSR
	Aster - Società Consortile Per Azioni – I	ASTER
RS PP2	<b>Regione Piemonte</b> – I	RHAP
RS PP3	<b>Regione Liguria</b> – I	LIGURIA
	Galliera Hospital	Affiliated
RS PP4	<b>Azienda Ospedaliera Universitaria Federico II, R. Campania</b> – I	
RS PP5	Centre Hospitalier Universitaire De Toulouse – F	GERONTOPOLE
RS PP6	Centre Hospitalier Universitaire Montpellier – F	CHRU
RS PP7	Unwersytet Medyczny W Lodzi – PL	LODZ
RS PP8	Universidad De La Iglesia De Deusto – SP	DEUSTO
RS PP9	Regional Health & Social Care Board of Northern Ireland – UK	HSCB
PP10	European Regional and Local Health Authorities Asbl – BE	EUREGHA
RS PP11	CARSAT Languedoc Roussillon – F	  <small>Co-funded by the Health Programme of the European Union</small> <b>CARSAT</b>

# collaborations & synergies

**74 EIP on AHA Reference Sites - 22 countries**  
**12 Italian Reference Sites**

**EIP-AHA**  
**A3 & B3**

**advantAGE**  
MANAGING FRAILTY

**CHRODIS**  
ADDRESSING CHRONIC DISEASES AND  
HEALTHY AGEING ACROSS THE LIFE CYCLE

**SPRINTT**  
Sarcopenia & Physical frailty IN older people:  
multi-component Treatment strategies

**consenso**



**EU Geriatric  
Medicine Society-  
EUGMS**

**Italian Geriatric Society-  
SIGG**

## specific objectives



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

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

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

To **promote the dissemination** of the results:  
Regional, National, EU



# definition of frailty

## BIOMEDICAL VS. BIO-PSYCHOSOCIAL MODEL

### Biomedical

**Biological** - age, sex

**Health-diseases**

**Life styles** - physical activity, nutrition...

**Risk factors** - smoke, alcohol...

### Psyco-social

**Well being** (physical, psychological)

**Independent living**

**Socialization**

**Resources** - health care, social interaction, sport, leisure

**Early identification (Risk factors)**

**Prevention of disability**

**REVERSIBILITY**





# beneficiaries perception of frailty and barriers to care

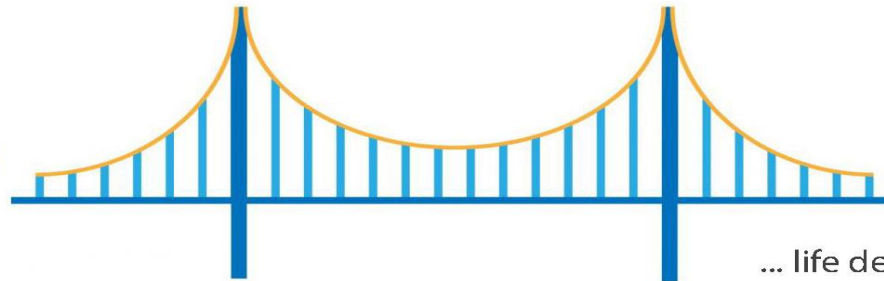


## BRIDGING THE GAP

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



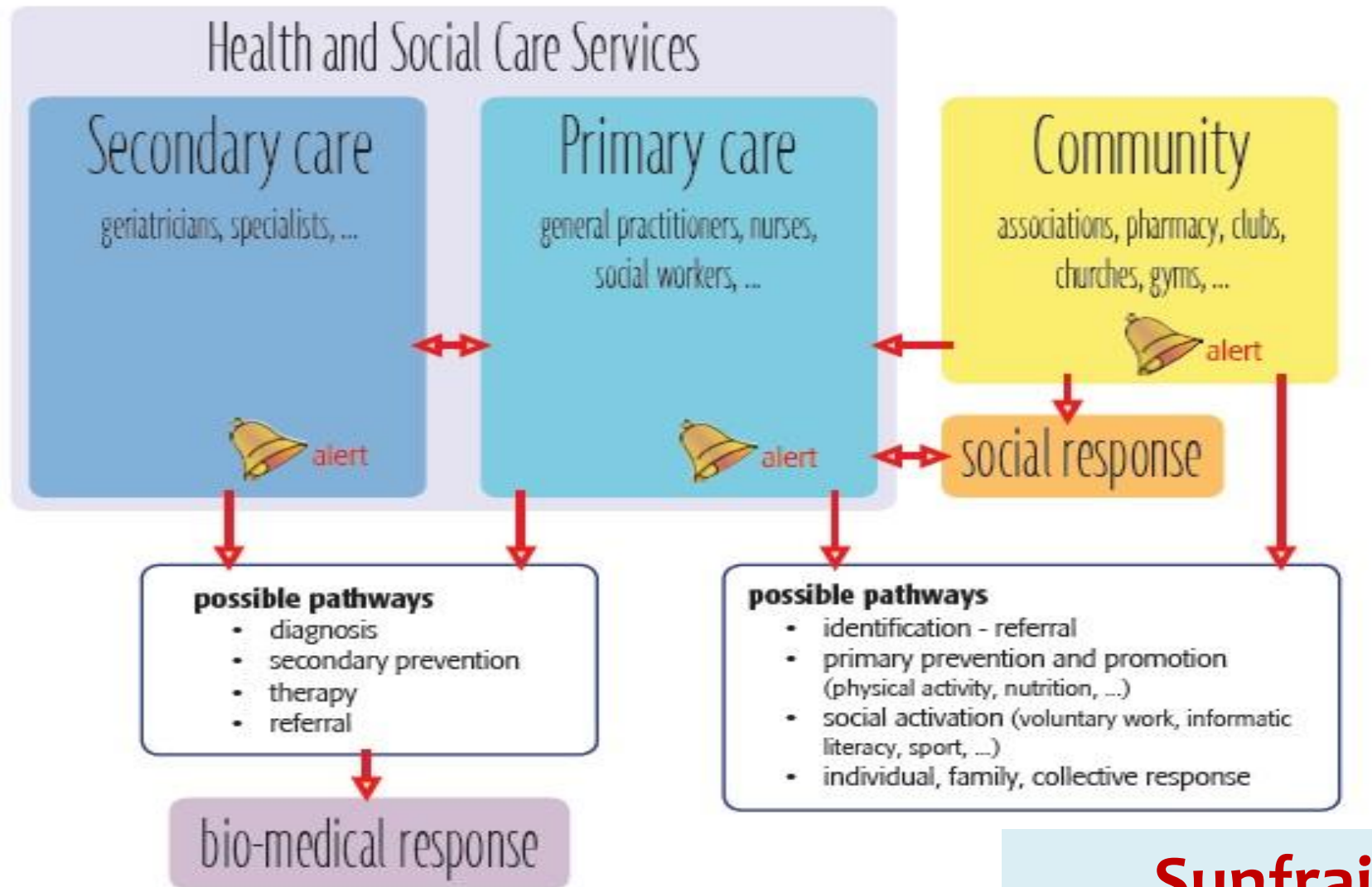
\* playing with grandsons  
\* driving \* dancing \* walking



... 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

# Sunfrail Model of care on frailty & multimorbidity



**Sunfrail Tool**



QUESTIONNAIRE NUMBER		ID
Date and place		
PROFESSIONALS		
Professional	<input type="checkbox"/> Nurse <input type="checkbox"/> GPs <input type="checkbox"/> Other Professionals	
	<input type="checkbox"/> Social Worker <input type="checkbox"/> Community Actor <input type="checkbox"/> Caregiver	
BENEFICIARIES		
<b>Gender</b>  <input type="checkbox"/> M  <input type="checkbox"/> F	<b>Age</b>  <input type="checkbox"/> 65-74  <input type="checkbox"/> 75-85	<b>Level of education</b> <input type="checkbox"/> Low (Without studies, Primary School) <input type="checkbox"/> Medium (Secondary school, or vocational degree) <input type="checkbox"/> High (University, Master or PhD degree)
Questions		
1. Do you regularly take 5 or more medications per day?		<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Have you recently lost weight such that your clothing has become looser?		<input type="checkbox"/> Yes <input type="checkbox"/> No
3. Your physical state made you walking less during the last year?		<input type="checkbox"/> Yes <input type="checkbox"/> No
4. Have you been evaluated by your GP during the last year?		<input type="checkbox"/> Yes <input type="checkbox"/> No
5. Have you fallen 1 or more times during the last year?		<input type="checkbox"/> Yes <input type="checkbox"/> No
6. Have you experienced memory decline during the last year?		<input type="checkbox"/> Yes <input type="checkbox"/> No
7. Do you feel lonely most of the time?		<input type="checkbox"/> Yes <input type="checkbox"/> No
8. In case of need, can you count on someone close to you?		<input type="checkbox"/> Yes <input type="checkbox"/> No
9. Have you had any financial difficulties in facing dental care and health care costs during the last year?		<input type="checkbox"/> Yes <input type="checkbox"/> No



## Sunfrail Tool main findings

The higher proportion of frailty alerts applies to **Polypharmacy, Functional and Cognitive Decline** items in **different settings**

In **Community - Primary Care Settings** the tool creates an alert on frailty in population **without** evident **signs of disability**/unknown by services

A higher prevalence of frailty is found in beneficiaries with **age group 75-85**

Citizens with a **lower education level** have a higher prevalence of frailty and greater **financial difficulties** of access (**Equity**)

**Women** have a **higher prevalence** of frailty than **men**

The positivity to **Sunfrail tool items** (Q1, Q3 and Q6) **is confirmed** by **specialist's tests**



## elements of success



### Sunfrail Tool

**Understandable** by professionals and beneficiaries

**Easy to use** by professionals and community actors

**Empowering** final **beneficiaries** (awareness - access)

**Intersectoral Collaboration** (health - social services) (**resources saving**)

**Multidisciplinary** approach to Frailty for HR development (**HR Tool**)

### Applicability - Replicability - Sustainability

Applied in other **EU projects** - **Local Health Services** - **GPs**

**A pilot study** on the Sunfrail Tool in the Netherlands (**R. Gobbens**)

**Requests for adoption: EU and IT Regions**

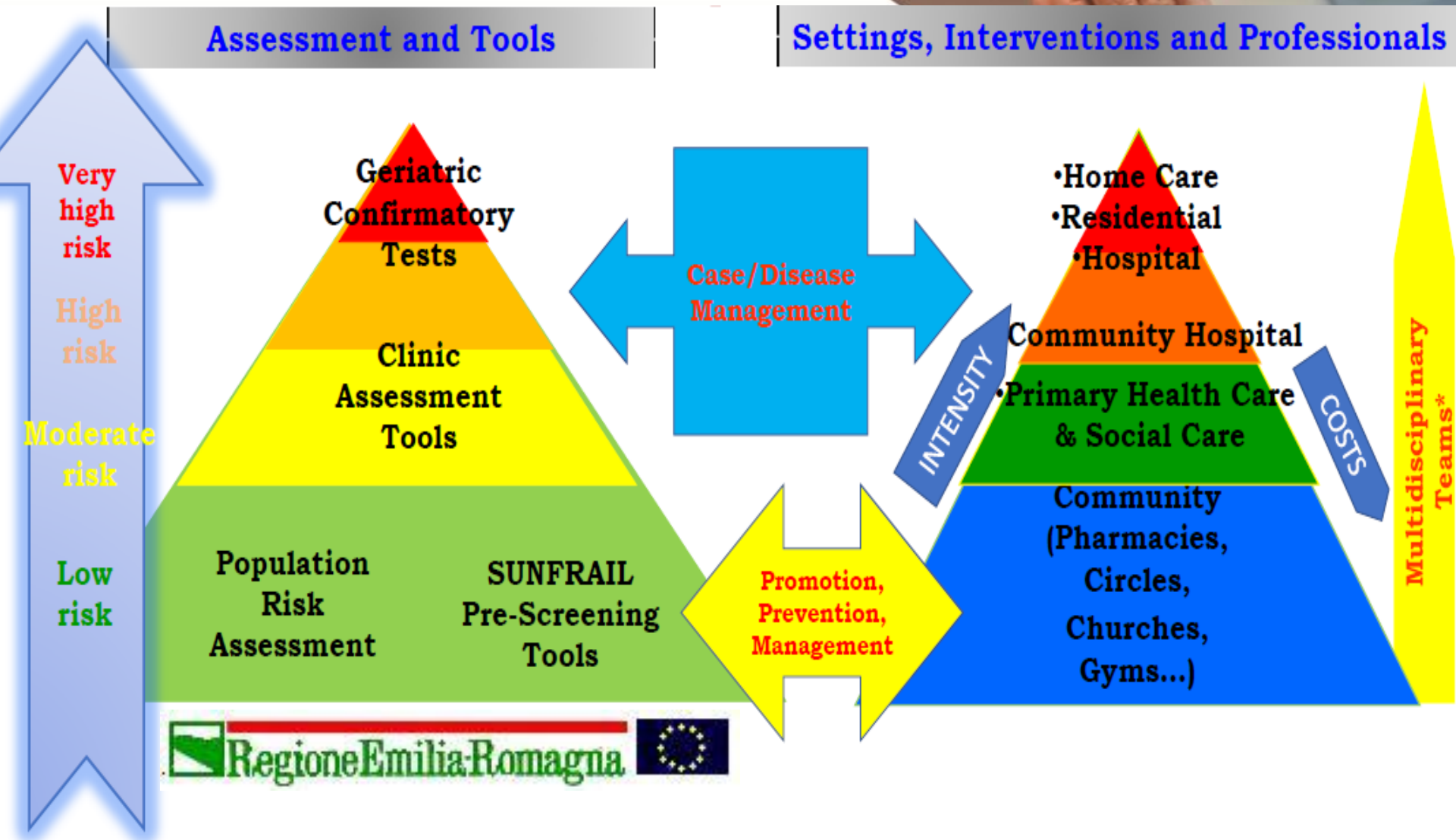
Collaboration with **EU Joint Actions** (**Advantage - Chrodis**)

### Sunfrail Model

**Integration with RS Models of Care and Good Practices**



# Sunfrail Model main Outcomes



## potential for future applications



Further integration with **existent pathways** on frailty and multimorbidity (health and social services, community)

Deployment or adaption of **ICT tools** for the wider use of the Sunfrail tool

Link with **Population Risk Stratification** strategies and tools

Continue to work on the **multidisciplinary approach** to frailty and multimorbidity for human resources



# Welcome!



sunfrail   
final conference

Bologna (Italy), February 7 | 7 febbraio 2018







# Thank you for your attention!

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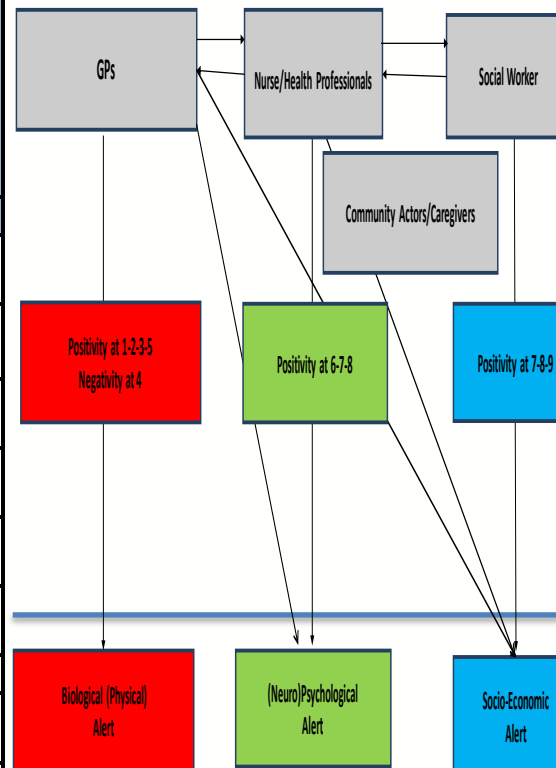
[Sunfrail@regione.emilia-romagna.it](mailto:Sunfrail@regione.emilia-romagna.it)

# Sunfrail Tool



QUESTIONNAIRE NUMBER		ID
Date and place		
PROFESSIONALS		
<input type="checkbox"/> Nurse <input type="checkbox"/> GPs <input type="checkbox"/> Other Professionals <input type="checkbox"/> Social Worker <input type="checkbox"/> Community Actor <input type="checkbox"/> Caregiver		
BENEFICIARIES		
Gender	Age	Level of education
<input type="checkbox"/> M	<input type="checkbox"/> 65-74	<input type="checkbox"/> Low (Without studies, Primary School)
<input type="checkbox"/> F	<input type="checkbox"/> 75-85	<input type="checkbox"/> Medium (Secondary school, or vocational degree)
<input type="checkbox"/> High (University, Master or PhD degree)		
Questions		
1. Do you regularly take 5 or more medications per day?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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7. Do you feel lonely most of the time?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
8. In case of need, can you count on someone close to you?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
9. Have you had any financial difficulties in facing dental care and health care costs during the last year?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

## flow chart




## pathways

Request GP visit	<input type="checkbox"/>
Request Specialist-Geriatrian evaluation	<input type="checkbox"/>
Diagnostic Evaluation	<input type="checkbox"/>
Social Support	transportation for social activity/services, Nutritional Support, economic support, leisure and community and social activities
Proactive & Preventive Interventions	Physical Exercise
Psychological and/or Cognitive support	<input type="checkbox"/>
Other Pathways	<input type="checkbox"/>
Relevant but not available	<input type="checkbox"/>
Non-relevant	<input type="checkbox"/>



# Sunfrail Tool preliminary results



Study Population	N=651	%
<b>Reference Sites</b>		
Deusto University, Spain	105	16,13
Galliera Hospital, Liguria	194	29,8
HSCB, Northern Ireland	127	19,51
Medical University of Lodz, Poland	114	17,51
University of Naples Federico II	111	17,05
<b>Beneficiaries</b>		
<b>Gender</b>		
F	372	57,14
M	279	42,86
<b>Age Class</b>		
65-74	222	34,1
75-85	429	65,9
<b>Education Level</b>		
High (University, Master or PhD degree)	123	18,89
Medium (Secondary school, or vocational degree)	315	48,39
Low (Without studies, Primary School)	213	32,72

# positive answers to the Sunfrail Tool items by settings

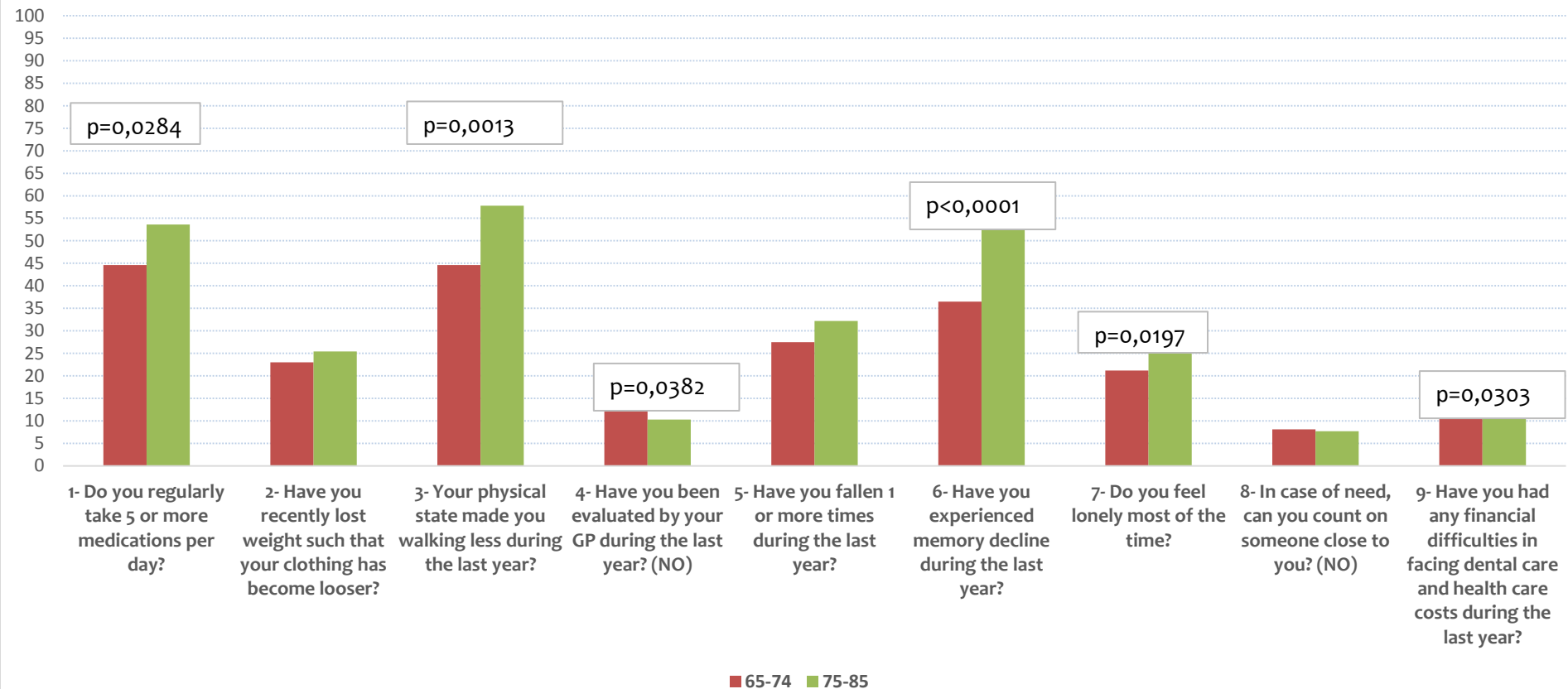


Questions	Total n=651	Secondary Care (Outpatient) (n=161)	Primary Care n=363	Community n=127
	%	%	%	%
1- Do you regularly take 5 or more medications per day?	<b>50,54</b>	<b>65,22</b>	<b>42,7</b>	<b>54,33</b>
2- Have you recently lost weight such that your clothing has become looser?	24,58	36,02	21,76	18,11
3- Your physical state made you walking less during the last year?	<b>53,3</b>	<b>64,6</b>	<b>46,83</b>	<b>57,48</b>
4- Have you been evaluated by your GP during the last year? (NO)	12,29	10,56	11,85	15,75
5- Have you fallen 1 or more times during the last year?	30,57	<b>42,86</b>	<b>29,48</b>	18,11
6- Have you experienced memory decline during the last year?	<b>49,62</b>	<b>60,87</b>	<b>55,37</b>	18,9
7- Do you feel lonely most of the time?	26,57	31,06	26,72	20,47
8- In case of need, can you count on someone close to you? (NO)	7,83	8,7	9,37	2,36
9- Have you had any financial difficulties in facing dental care and health care costs during the last year?	14,75	<b>22,98</b>	<b>14,88</b>	3,94

# % positive answers by age groups

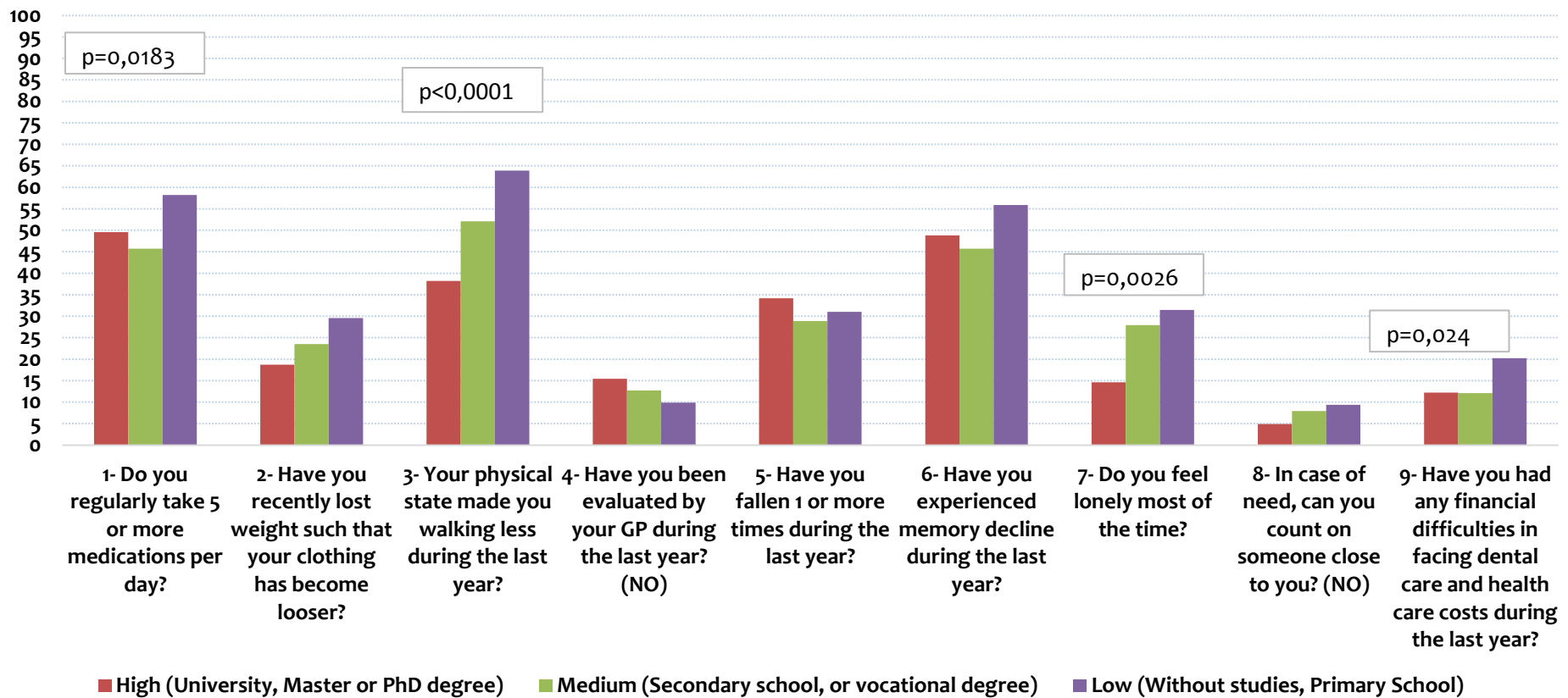


% of positive Items by Age Group



# % positive answers by educationl level

% of Positive Items by Education Level

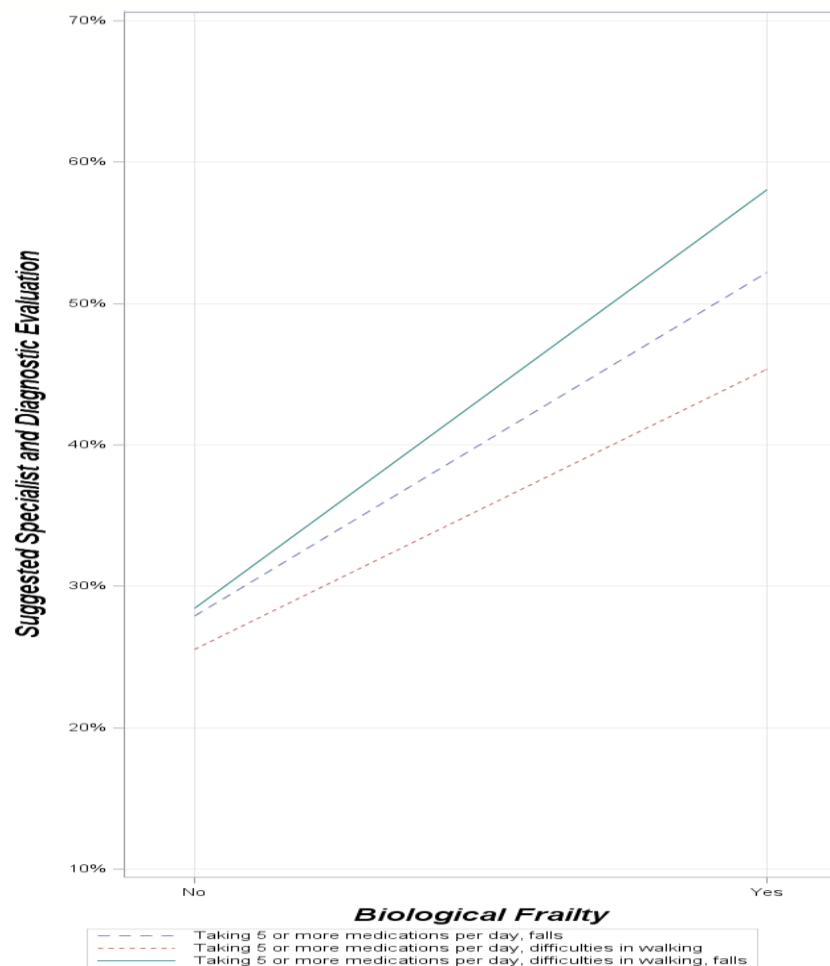




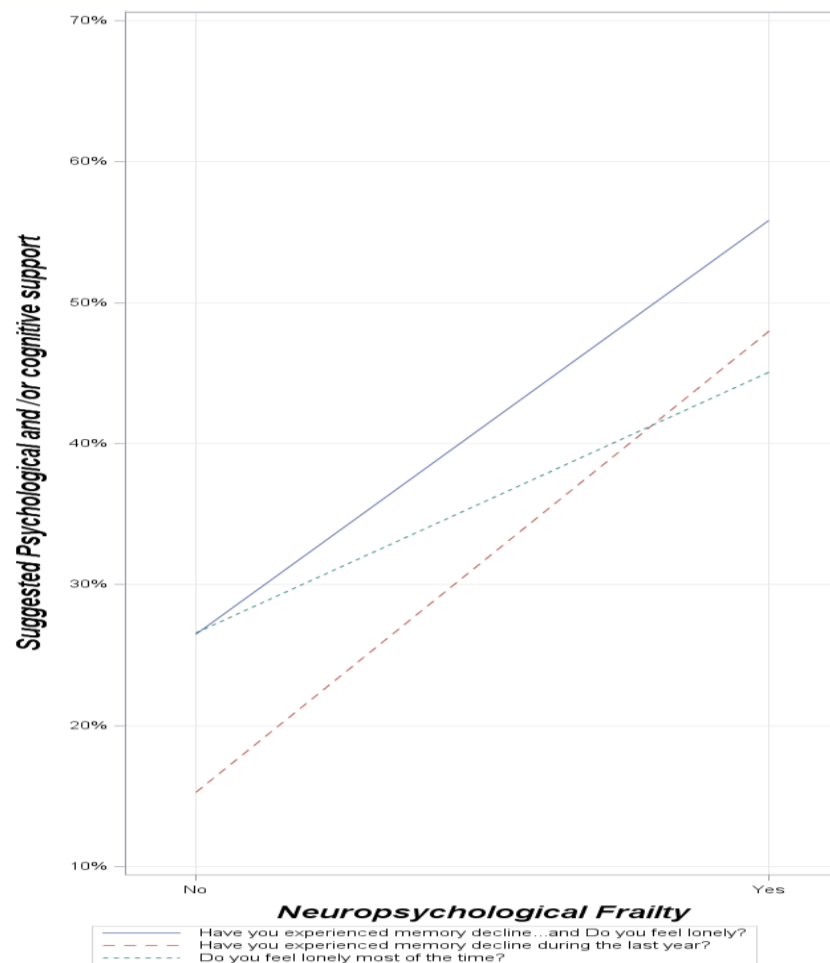
# positive answers and suggested pathways



## Biological Frailty (Q1, Q3, Q5) & Suggested Specialist/Diagnostic Evaluation



## Neuropsychological Frailty (Q6-Q7) & Suggested Psychological/Cognitive Support



# confirmation of the positivity of Sunfrail Tool Results with Specialist Tests



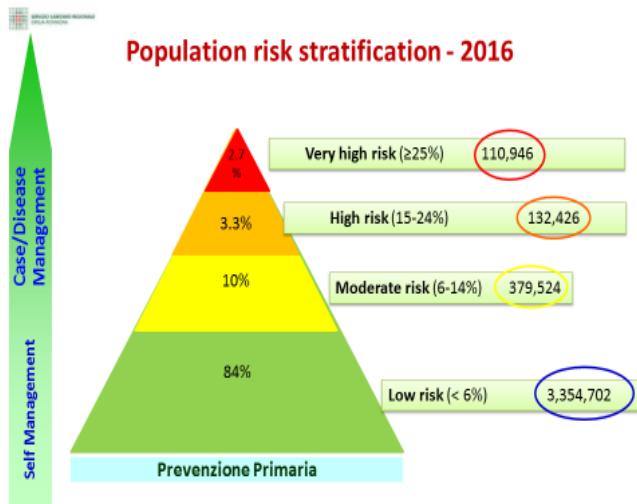
			Naples n=101						Poland n=114						R. Liguria N=194					
Questions			n	media	ds	diff*	ic95%	p-value	n	media	ds	diff*	ic95%	p-value	n	media	ds	diff*	ic95%	p-value
1- Do you regularly take 5 or more medications per day?	n. medication per day	no	33	2,818	1,467				17	3,529	1,772				109	2,954	1,734			
		yes	68	7,529	2,216	4,711	3,886-5,536	<0,0001	35	7,229	2,591	3,699	2,274-5,124	<0,0001	85	7,082	2,117	4,119	3,575-4,664	<0,0001
3- Your physical state made you walking less during last year?	4-m WS (0,8 m./sec.)	no	31	0,821	0,06				28	1,243	0,2047*				98	1,249	0,291			
		yes	70	0,365	0,127	0,456	0,408-0,503	<0,0001	24	1,069	0,281	0,174	0,041-0,307	0,033	94	0,995	0,305	0,254	0,169-0,338	<0,0001
6- Have you experienced memory decline during the last year?	MMSE (<24)	no	34	25,621	4,123				23	29,348	1,071				76	27,79	2,271			
		yes	63	20,656	3,597	4,965	2,531-7,399	0,002	29	28,655	1,518	0,693	-0,069-1,455	0,082	117	26,684	3,458	1,091	0,198-1,984	0,017

# Sunfrail Tools & Good Practices

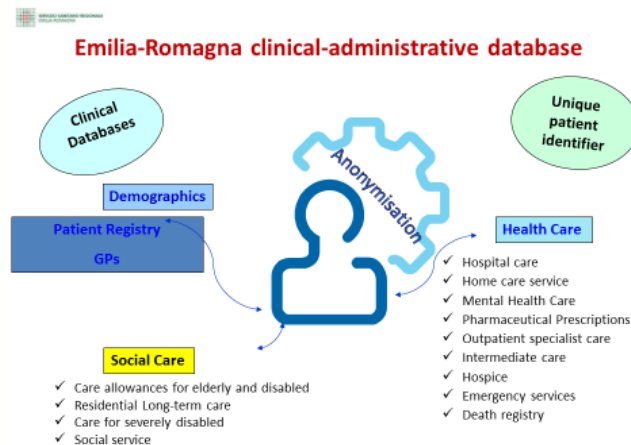


## 33 GPs Identified!

a regional predictive model to identify patients\* at high risk of hospitalization and frailty



Population 18+ = 3,977,598



Categorie di Rischio di Ospedalizzazione e morte		
	Rischio Previsto	
Ad rischio molto alto	$\geq 25\%$	Rappresenta circa il 4% della popolazione adulta
Ad alto rischio	fra il 15 e il 24%	Rappresenta circa il 6% della popolazione
A rischio moderato	fra il 6% e il 14%	
A basso rischio	$\leq 5\%$	Rappresenta circa il 75% della popolazione - il rischio è inferiore al livello medio di ospedalizzazione

\* Economic Evaluation of Risk Stratification & Impact on Outcome Indicators

a multidisciplinary  
approach to Frailty

## the Educational toolkit – Piemonte RS

Overview of education and programmes in EU

Introductory courses used by partners experimenting the Sunfrail tool

Direct outputs of the tool experimentation in partners' sites (Northern Ireland, Liguria, Piemonte - CoNSENSo)

Interviews and added info from EIP-AHA Action Groups

**Experimental course** directly modelled on the Sunfrail tool

Synergies with the CoNSENSo Project

Synergies with the Advantage JA on frailty

Synergies with the EIP-AHA Action Groups: A1, A2, A3, B3

**'Smart4Learn' web platform**

