Project title:	Reference Sites Network for Prevention and Care of Frailty and Chronic Conditions in Community Dwelling Persons of EU countries
Acronym:	SUNFRAIL
Project ID:	664291
Call identifier:	H2020-HP-PJ-2014
WP7 Coordinator:	Regione Piemonte and IRES – Institute for Socio-economic Research

Document title:	Educational model for social and healthcare staff and related tools
Version:	3
Deliverable No.:	7.1
Lead task beneficiary	Regione Piemonte – IRES (Institute for Socio-economic Research)
Partners Involved:	RER-ASSR, R. Liguria, R. Piemonte , Campania (Federico II), HSCB Northern Ireland
Author:	P.Abete, M.Barbolini, A.Borraccino, C.Cena, V.De Luca, S.Hun, M.Illario, M.Maggio, P.Obbia, E.Palummeri, E.Rabaglietti, V.Romano
Status:	Final
Date:	10/01/2018
Nature[1]:	R
Dissemination level	CO

D 7.1 Educational model for social and healthcare staff and related tools

Co-funded by the Health Programme of the European Union

This publication is part of SUNFRAIL (project 664291), which has received funding from the European Union's Health Programme (2014-2020). The content of this publication represents the views of the author only and is his/her sole responsibility; it cannot be considered to reflect the views of the European Commission and/or the Consumers, Health, Agriculture and Food Executive Agency or any other body of the European Union. The European Commission and the Agency do not accept any responsibility for use that may be made of the information it contains.

1

For deliverables: R = Report; **P** = Prototype; **D** = Demonstrator; **S** = Software/Simulator; **O** = Other
For milestones: O = Operational; **D** = Demonstrator; **S** = Software/Simulator; **ES** = Executive Summary; **P** = Prototype

Table of contents

Annexes:

- Annex I: SUNFRAIL TOOL For HUMAN RESOURCES

- Annex II: A report on the assessment of the healthcare workforce education and training on *frailty* and *multimorbidity*

1. DEFINITION OF FRAILTY AND PERCEPTION BY PROFESSIONALS

The term frailty is mostly confined to the geriatrics' world without a significant impact in clinical practice and health care systems. This term is often seen by patients, General Practitioners (GPs) and social and health professionals in different negative ways. Among older adults, it is usually considered a bad term label of poor condition, frequently inducing scare and aversion. In disciplines other than geriatrics, the aging process is often judged a homogeneous and irreversible process leading to adverse outcomes, and thus a frailty condition or vulnerability is often neglected. However, there is a growing attention among medical disciplines including oncology, cardiac surgery, cardiology, urology, and haematology about the opportunity to identify specific frail vulnerable subjects in order to start tailored interventions. Therefore, by summing-up these three points, frailty is perceived as a synonymous of disable status, not clinically relevant, too much expensive to treat or, alternatively, as just the proxy of multimorbidity. This approach is in line with the one adopted by the majority of health care systems, that are more oriented towards coping with the consequences of diseases (disability and hospitalization) rather than focusing on recognizing the burden of vulnerability or frailty. Multimorbidity is defined by the World Health Organisation as the presence of two or more chronic diseases, independent of the severity and of the presence of specific clusters, and is perceived by GPs and patients as more relevant than frailty.

Fairhall et al. (2011) highlighted, as a key element in tackling frailty at local level, the potential of having a proactive early assessment of the condition by primary care professionals. This does however require primary health and social care professionals to recognize the importance of frailty, have a means of identifying when it is occurring and agreed ways of dealing with it, once suspected. Many factors however influence health and social care professionals' decision- making processes (Clemens & Hayes, 1997; Craig & Smyth, 2007; Gabbay & le May, 2004), including their personal attitudes, knowledge, experience and the organizational cultures and structures they work within.

The literature overview on academic and non-academic learning paths, and a survey with some stakeholders of the EIP-AHA and SUNFRAIL partners found out that the European health and social care workforce are not provided with the required knowledge and skills to properly care for older adults, promote health and prevent diseases and to address the rise of frailty as a healthcare issue (Bardach & Rowles, 2012; Knight, Oliver, Wyrko, Gordon, & Turner, 2014). Moreover, ageist stereotypes may affect the assessment of the frail condition, if treatable disorders are dismissed as being normal parts of ageing (Center for Policy on Ageing, 2009; Levy, 2001). In fact, the World Health Organisation (2017) warns that the majority of health care professionals lack guidance or training to recognize and manage impairments in older adults. An original qualitative study (in press) provided an in-depth examination of the attitudes of

primary care professionals (GPs, nurses, physiotherapist, social workers, home care workers) towards the concept of frailty in community-dwelling older people and confirmed that outside the geriatric specialist care areas, “frailty” is quite a new construct which is often poorly understood, unclear and controversial (Fried et al., 2004). The term is often used as an umbrella term for ageing decline, disability, multi-morbidity, cognitive and social problems, long term conditions and approaching the end of life.
The lack of distinction between frailty and multi-morbidity and disability that are often used interchangeably to address vulnerability in older people, can lead to inappropriate management practices (Cesari et al., 2016).

As what it is most important for aging people is to maintain their independence, health and wellbeing and this goes along with avoiding the societal burden of disability, there is a pressing need to develop comprehensive community-based approaches and to introduce interventions at the primary health care level to prevent frailty, but traditional models of care are responsive and not oriented towards prevention. Moreover, the self-awareness of people regarding their condition is considered important if they are to maintain independent living. This change in work perspective would be effective only through a multi-professional approach: professionals should take steps to tackle frailty together, avoiding a sectorial approach, especially because interventions in this area need the involvement of several levels of care: social care, primary care, secondary care (only if needed). The perspective should move from the present one, focused on illness and disability, towards prevention and the reversibility of frailty; the target should become the maintenance of independence in the older adults.

2. AN OPERATIONAL APPROACH TO FRAILTY

The aging process is continuous and irreversible, potentially responsible for many age-related adverse outcomes. In this context, frailty may represent a condition to be targeted by preventive and therapeutic strategies in order to reverse some modifiable risk factors and promote independent life. As frailty is a distinct concept than disability, it is important to develop interventions and tools aimed at early detection, prevention and management of frailty conditions (Figure 1 and Figure 2).

Figure 1. Trajectories of Function in older persons

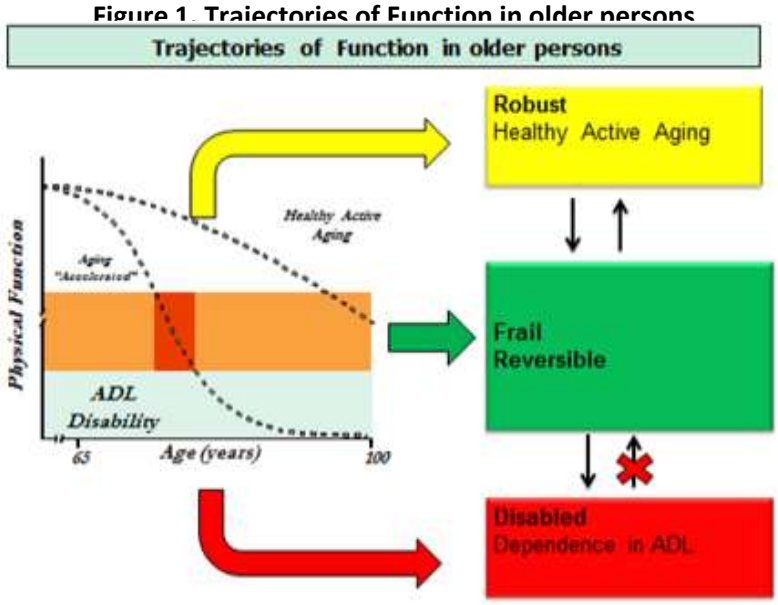
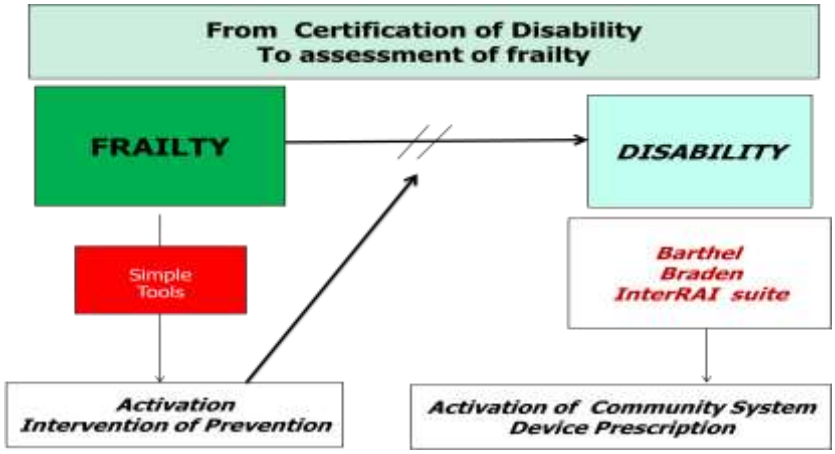


Figure 2. Frailty as distinct concept than Disability - The Need of Simple Tools to identify this condition



3. THE SUNFRAIL MODEL

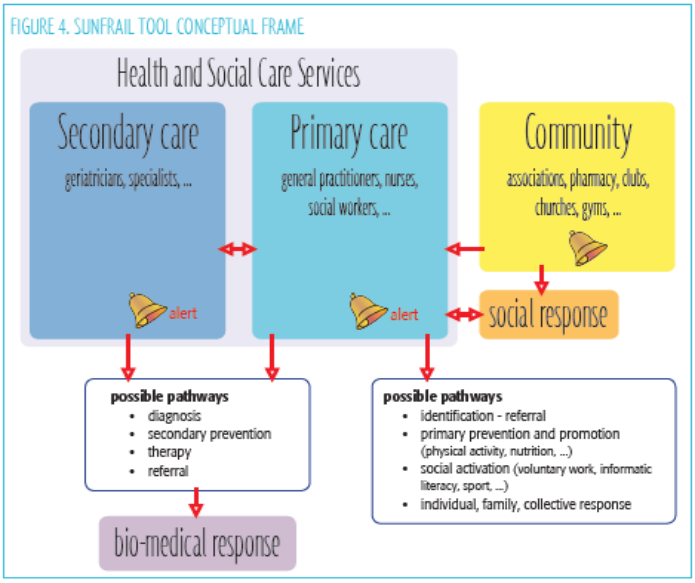
The SUNFRAIL project has defined Frailty according to the bio-psycho social paradigm (Gobbens et al., 2010), considering the physical, psychological, social and economic dimensions.

The SUNFRAIL Model for the identification, prevention, management of frailty and care of multi-morbidity.was designed through a process of literature review and the assessments conducted on Reference Sites' (RS) Health and Social Systems and Services and on beneficiaries' perceptions and barriers to care. In-depth discussions with relevant stakeholders from the scientific community, policy makers and

services providers contribute to obtain the consensus on the definition of Frailty and on the Model designed.

The Model implies that the early identification of frailty and its risk factors can be done through a "multiple entry door system", in which, by applying a specific tool (Sunfrail Tool), professionals and carers may activate an initial "alert" for further professional/specialist and diagnostic investigation, or for activation of care pathways within the health, social and community-informal systems. It is based on the assumption that frailty could be a reversible condition if detected in advance and if followed by appropriate interventions. The followig picture illustrates the SUNFRAIL model conceptual framework and related services and levels of care potentially involved.

FIGURE 4. SUNFRAIL TOOL CONCEPTUAL FRAME



4.THE SUNFRAIL TOOL

4.1 Development of the SUNFRAIL tool

The SUNFRAIL tool was conceived in 2016 by a multiprofessional experts' team working in the project. It is not a scale and it does not calculate scores as standard geriatric scales which are widely used, (i.e. Rockwood scale, Fried scale, Tilburg scale, Edmonton and others), therefore its aim is not that of classifying or stratifying subjects, but to raise alerts about possible frailty 'symptoms'. The alerts should then indicate a direction towards appropriate support and services, if needed.

The SUNFRAIL tool is composed by 9 questions exploring the three domains considered: bio-physical, psychological-cognitive and socio-economic. The tool has been developed on the basis of existing

questionnaires for the assessment of frailty, identifying the most relevant alerts related to the early onset of frailty. It is a simple tool, for everyday use in primary care and community care settings, that could be administered not only by medical doctors and nurses but also by other professionals and community actors as well, so that frailty could be identified at an early stage.

The SUNFRAIL tool is available in English, French, Italian, Polish and Spanish and has been tested by hundreds of professionals and non-professionals. It has been tested also against other instruments and proved to be effective in detecting frail status.

1. Do you regularly take 5 or more medications per day?	□ Yes	□ No
2. Have you unintentionally lost weight during the past year such that your clothing has become looser?	□ Yes	□ No
3. Your physical state made you walk less during the past year?	□ Yes	□ No
4. Have you been seen by your GP during the past year?	□ Yes	□ No
5. Have you fallen 1 or more times during the past year?	□ Yes	□ No
6. Have you experienced any memory decline during the past year?	□ Yes	□ No
7. Do you experience loneliness 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 economic difficulty in facing dental care and health care costs during the past year?	□ Yes	□ No

4.2 The questions and their meaning

Exploring the bio-physical domain

N 1 Do you regularly take 5 or more medications per day?

This clinical item is related to the multi-morbidity and poly-pharmacotherapy. The number of medications is much more relevant even though the confounding effect of occasional and temporary medications and supplements that should be taken into account. In the real clinical world, the reporting of number of diseases is much more difficult to be performed by older persons that have more difficulties to remind the type of diseases but are definitively more familiar with the number and type of medications taken on regular basis.

N 2 HAVE YOU LOST WEIGHT DURING THE LAST YEAR SUCH THAT YOUR CLOTHING HAS BECOME LOOSER?

Weight and weight loss are important parameters of physical status and change during the last year. That can have important consequences in terms of physical function if not adequately addressed and treated. Malnutrition is common among older people and could lead to loss of muscle mass (sarcopenia). It is normally easy to correct.

N 3 HAVE YOU WALKED LESS BECAUSE OF PHYSICAL STATE?

Walking is the proxy of the general health status of older individual and the slow walking speed especially 4-meter (<0.8 meters/sec) has been shown in different studies as an important predictor of adverse health outcomes in older persons. The ability but also the habit of walking might depend on different barriers including weather, social isolation, lack of transportation. Thus the item addresses the causal link between the reduced walking and physical status.

N 4 HAVE YOU BEEN SEEN BY YOUR GENERAL PRACTITIONER DURING THE PAST YEAR?

An important issue in terms of heath care and preventive strategies is the frequency of the access or regular visits performed by GPs during the year. In most of EU Countries the access to GPs is not only devoted to check just physical health-related problems but also directed to explain and communicate social pending issues. The concern about disturbing GPs for minor problems can keep people out of sight and their problems hidden.

N 5 HAVE YOU FALLEN 1 OR MORE TIMES DURING THE LAST YEAR?

Falling is a critical event in the risk of frailty and disability. The statuses of faller and recurrent fallers are both addressed in the question. It should be underlined that falling has also relevant psychological implications in addition to the well-known physical consequences.

Exploring the psychological - cognitive domain

N 6 HAVE YOU EXPERIENCED ANY MEMORY DECLINE DURING THE PAST YEAR?

Cognitive impairment significantly interferes with daily autonomy and the affirmative answer to this item indicates the need to further investigations. Changes and symptoms of memory decline may occur later than expected during the course of dementia, but it is rarely systematic tested even with a question.

Exploring the socio-economic domain

N 7 DO YOU FEEL LONELY MOST OF THE TIME?

People could feel really alone independent of the real or potential presence of relatives and/ or other caregivers. Loneliness has been shown as predictor of functional decline and death in older persons. To live alone might in fact be a misleading concept being a specific choice of the individual and not implying a

proxy of social frailty. The older persons may not declare the presence of assistant /caregivers because of taxes or other economic issues. This item crosses the social domain and the psychological domain.

N 8 In case of need, can you count on someone close to you?

This item explores the resilience or the ability of the individual to cope with change or changed needs and the important value of the "social reserve" in case of need.

N 9 Have you had any economic difficulty in facing dental care and health care costs during the last year?

This question addresses the important concept that low income and economic difficulties are independent predictors of survival and a key factor in favoring preventive strategies in older persons. Dental care is pivotal to proper nutrition and sometimes not easy to cover.

5. THE PROCESS OF DEVELOPMENT OF THE TRAINING MODEL

5.1 Literature review

Literature and documentation regarding health and social care professionals' education concerning the concepts of frailty and multimorbidity is very poor. Specifically, the concept of frailty is commonly intended as referring to an acquired pathological status (population affected by at least one condition). Geriatric academic curricula, of course, extensively deal with akin concepts and do specialize in the care of the elderly, but those usually are very 'institution/hospital/residential' oriented, whereas community dwelling citizens, older than 65 years, are apparently not specifically the final target of academic programmes, or only partially. This reflects the fact that prevention of a frailty status in the citizens hasn't been considered as a priority by official academic programmes so far. As regards the field of nursing, most researches addressed the issue of how to attract and retain nursing students in the field of older people care, an issue that appears to be extremely relevant due to stereotypes associated with elderly and ageism. In fact, one of the main findings is the lack of trained professionals with appropriate skills for the care of older people (Ryan 2013, Bardach and Rowles 2012, Alsenany 2009) and this could affect the early detection of frailty. In many European countries, Geriatric/Gerontological Nursing or Older People Care are offered as Post Graduate Diploma (PGD) or at Master levels. According to Ryan et al (2013), in order to deliver integrated health care for seniors, and especially for frail seniors, a team approach and an effective collaboration among primary, community, emergency and hospital services is pivotal. To reach these outcomes, professionals must be trained in three broad areas of competencies: geriatrics, interprofessional practice, and inter-organizational collaboration (GiiC). As regards pharmacists' education, many experiences regarding subjects like medication review and simplification, prevention of inappropriate prescribing and so on, do already exist in EU countries. As regards social workers' education, and activity is rather context and

country-dependent, but it is possible to find common features for an Interprofessional experimental course addressed to frailty detection and prevention. To move the thinking of policy makers and providers away from a somewhat narrow focus on clinical health to be supportive of integrated service approaches will require important changes in the management and capacity building of human resources. In particular, in the next future, health and social care staff have to be prepared to give people greater access to health information; support the development of higher levels of health literacy; promote improvements in people's lifestyles and support and, where appropriate, behaviour change; encourage people to play a greater role in the self-management of their health. Subsequently, workforce development (in terms of knowledge, skills and competences) needs to underpin such approaches. It would therefore be necessary, for some EU countries, to a substantially 'rethink' of the divisions that have served to (a) compartmentalise e.g. primary, secondary health and social care services; and (b) create and often re-enforce particular professions or disciplines.

The literature search results obtained by the search were not satisfying. WP7 members have therefore decided to collect some more useful information by using other methods, such as questionnaires and surveys.

The SUNFRAIL project provided the partners with questionnaires to be filled in and delivered, in order to elaborate data, information and useful details on the participating partner regions' health and social services.

5.2 The assessment of EIP-AHA partners educational programs on frailty and multimorbidity

WP7 has adopted the suggested strategy of working in parallel with the European Innovation Partnership for Active and healthy Ageing Action Groups, therefore material was collected from the products of the EIP-AHA. In the framework of the EIP-AHA works, the Action Groups and the Reference Sites Network have developed a *synergy topic* regarding '**Masters of AHA educating seniors, health and social carers and entrepreneurs**'. The working group is composed by: N Goswami, A Nizinska, R Roller-Wirnsberger, P Eklund, J Malva, C Jeandel, H Blain, M Nogues.

Although the concept of *active and healthy ageing* does not correspond to the concept of frailty detection and management - but can have some overlapping elements - the courses considered in the synergy work are a valuable example to be included in the present report.

The work has been developed as follows.

Rationale: Integrated, interdisciplinary and inter-professional education for all stakeholders is needed to tackle the interrelated syndrome of frailty, malnutrition, falls, chronic diseases, and their social consequences.

General objectives: Development of an innovative, dynamic and sustainable care system for AHA by capacity building through senior/patient centred, multidisciplinary and inter-professional educational programmes aimed at patients, patient caregivers (both formal and informal), health and social carers, administrators and entrepreneurs.

Specific objectives:

1- Multi-professional education to improve the links between all stakeholders through better understanding of the knowledge and competencies of each stakeholder.

2- Master of Gerontology and Geriatrics: To develop dynamic and sustainable care systems that will encompass inter-disciplinary, inter-professional education (IPE) and learning (IPL) including RRI business models.

3- Best evidence holistic perspective to bring together research, practice, policies and market by courses in medical, nursing, pharmacy, social, behavioral, psychological, economic, physiological, management service aspects related to prevention and management of ageing and using the innovation loop of planning up-scaling strategies.

4- To promote AHA as well as the empowerment of self-care and (care) independency, by placing the older person at the centre of care.

Contribution to the Scaling Up Strategy of the EIP on AHA: The program will be started at the Medical University of Graz, Austria by a well-defined Master of Gerontology and Geriatrics in English. The course teachers and participants will be from different institutions in Europe. This programme will be a pilot for other European programmes. The multi- professional approach will be developed in collaboration with the *European Interdisciplinary Council on Aging* (EICA) gathering professionals from all disciplines interested in AHA also implementing knowledge transfer to political, economic and lay stakeholders in the field. Some examples of education programmes carried out in other regions are given in Table 4.

Table 4: Examples of Masters of Gerontology and Geriatrics in Europe

Austria	Graz Medical University		Master of Gerontology and Geriatrics	English
Austria	Medical Doctors' Association Austria	http://www.aerztekammer.at/veranstaltungen	Postgraduate Training Course for Medical Doctors in Geriatric Medicine	German
Belgium	European Academy of Aging (EAMA)	http://eama.eu	Leadership programme for academic geriatricians	English
France	Languedoc Roussillon (15-17)	http://reseau-idefi-2015.strikingly.com	***Trans Innov Longévité***: Trans-disciplinary, multisectoral, private-public partnership to train and coach on frailty, ageing and independent living	French
Portugal	Ageing@Coimbra	http://www.ed.uc.pt/educ/curso?id=96	Distance Learning Course for Care Providers and the general public	Portuguese
UK	British Geriatric Society	http://www.bgs.org	Spring Postgraduate training course geriatric medicine Edinburgh Scotland	English
UK	University of Oxford	http://www.oxford.edu.	Onsite training courses	English

The EIP-AHA has then developed a collection of *good practices* in Action Group A3.

The need of shaping a new module for screening, treatment and monitoring of frailty and functional decline as well as a more suitable training offer for healthcare professionals on frailty topics has been proposed by different group members of the A3 action group of EIPonAHA (2013). The Action Plan of the A3 action group on "Prevention and early diagnosis of frailty and functional decline, both physical and cognitive, in older people" of the European Innovative Partnership on Active and Healthy Ageing (EIPonAHA) and the collection of good practices realised in 2013 , registered a number of projects and initiatives concluded or still ongoing.

5.3 Assessment of SUNFRAIL RS educational programs on frailty and multimorbidity

Information on models, programmes and approaches used to cope with frailty and/or multimorbidity within the professional and academic education systems were also analysed as part of the assessment of Reference Sites' Health and Social Systems. Reference Sites like Languedoc Rousillon, Piemonte and Campania have long lasting specific programmes for professionals addressing frailty and multimorbidity. For other partners, specific programmes are normally part of EU funded projects. Of particular interest is Piemonte programme on community-based detection and management of frailty through the work of specifically trained nurses.

As the results from these phases of work were not fulfilling entirely the needs, WP7 members decided to collect some more information. Specific questionnaires on human resources training needs were provided to partners, to collect information that were relevant to design the tools for professional improvement regarding the identification, prevention and management of frailty and multimorbidity. WP7 also provided stakeholders of the EIP-AHA with questionnaires concerning such an overview.

.

RS	Name of model/ programme/ approach / component	General description	Coordination/ Main responsibility	Providers involved (public, private, non profit, charities, etc)	Human resource involved (professional profiles, formal/ informal, etc)
Poland	**The Healthy Ageing Research Centre (HARC) and the Academy of Active Ageing**	The HARC mission is to support and advance healthy ageing through biomedical research, education and collaborative partnership at European, national and local levels. The aim of the Academy of Active Ageing is to develop the intellectual capacity, as well as improving quality of life of older people through their comprehensive activation. To meet the needs of seniors, the Academy organizes lectures, seminars and workshops, focusing mainly on issues involving medical topics and health prevention. In addition, the Academy enables the integration of listeners with the local community through meetings with representatives of the city, the region, but also people associated with the world of art and culture.	**Medical University of Lodz**	**Public Universities, Departments, Clinics.**	**University professors, MD, Phd, Health professionals**

Poland	**PolSenior**	Comprehensive Research Programme which will provide data on the health and socio-economic situation of the oldest group of society.	Ministry of Science and Higher Education, Poland	**Public Universities, Departments, Clinics.**	University professors, Phd, MD, Health professionals.
Poland	**EIP on AHA Action Group A3 Prevention of functional decline and frailty - reference site - the Book of the good practices - commitment (documents submitted)**	The Action Group A3 brings together around 100 organizations, among which public health authorities, care organisations, academia, research centres, industries, patients associations and professional bodies, which have committed themselves to the objectives of understanding the underlying factors of frailty, exploring the association between frailty and adverse health outcomes in older people and better preventing and managing the frailty syndrome and its consequences.	**European Commission**	**All actors involved in Active and Healthy Ageing through Europe**	University professors, Phd, MD, Health professionals.
Midi-Pyrénées (1)	**Implement an Evaluation of fragilities activity for people aged over 65 years**	Aims: - evaluation and monitoring frail elderly people - implement in diagnostic and therapeutic activities described in the frailty syndrome - develop, initiate and accompany a personalized plan of care and prevention of disability.	CHU Toulouse Hospital Regional Team	University of Toulouse, CHU Toulouse Hospital, Regional Team	MD, Phd, Nurse, Health professional
Midi-Pyrénées (2)	**Development of the prevention of iatrogenic disability**	Aims: -identify preventable risk factors for dependence in elderly hospitalized more than 48 hours - develop and initiate a personalize plan of preventive disability with the health care team - provide continuity information in an approach to personal care course.	CHU Toulouse Hospital Regional Team	University of Toulouse, CHU Toulouse Hospital, Regional Team	MD, Phd, Nurse, Health professional
Midi-Pyrénées (3)	**High health Autority (Haute Autorité de santé) cooperation protocol training**	Aims: - Establishing a diagnosis of frailty from an analysis of standardized assessment tools and results validated - Develop a personalized plan of care and prevention - Initiate and support the implementation of the plan after its validation by the attending physician with all the professional care.	ARS CHU Toulouse	ARS	MD, Phd, Nurse, Health professional
Languedoc -Roussillon (1)	**Trans Innov Longevity (TIL) Programme**	The e-learning programme TIL is a trans-disciplinary, multi-sector, private public partnership that trains and coaches on frailty, ageing and independent living. It is deployed in France, Canada and French-speaking African countries. 2 masters + 14 university diploma (DU) http://u-til.org/	UNF3S (Université Numérique Francophone des Sciences de la Santé et du Sport), Universities of Montpellier, UPMC Paris 6, Joseph	Canadian universities of Sherbrooke and Montréal, Agence Universitaire Francophone (AUF), CIDMEF, TELUQ – laboratoire LICEF (Canada), Université d'Antananarivo (Madagascar) Université	E-learning by professors and professionals. Individual tutoring by working professionals.

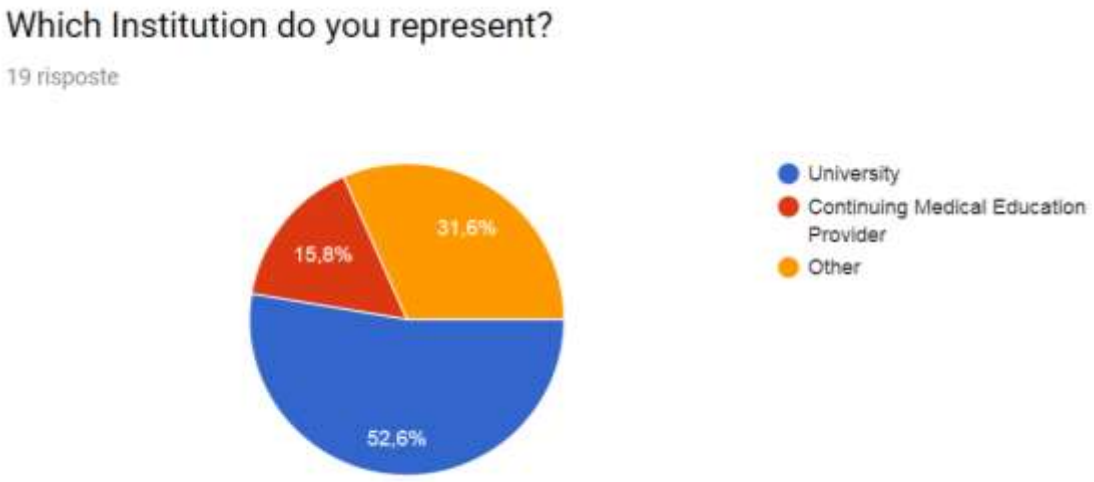
			Fourier Grenoble, Caen	de Dakar (Sénégal), Université de Saint-Louis du Sénégal, Université de Sfax (Tunisie)	
Languedoc -Roussillon (2)	**University diploma (DU) Health care manager**	Aim: To understand the environment and peculiarities of the various public (chronic fragile, sick seniors, people disabled or affected by mental pathologies) regarding health pathway or social prevention. • to acquire transverse and specific skills allowing the participants to ensure a continuous, individual and operational follow-up of the people in complex situation all along the care pathway. • To integrate a new concept of global and progressive support of the person in her ordinary life environment or in its care pathway. • to know the educational, methodological and practical ways necessary for the management of patients or weakened elderly http://www.ceseg-hp.fr/formation/d-u-gestionnaire-de-parcours-en-sante.	ISEM, CESEGH	CARSAT, ARS, IRV	University professors and professionals.
Pais Vasco	**Official training on multimorbidity for Case Manager nurses**	2-day official training on multimorbidity for Case Manager nurses. Symptoms, multimorbidity detection, social aspects, treatment and patient empowerment	Carewell project consortium	Carewell project consortium	Carewell project consortium
Piemonte	**Post-grad Programme in Family and Community Nursing**	This master course is a post-graduate specialization and teaches a proactive management model of care for chronic diseases. The model identifies the community nurse as the central carer who supports community empowerment and case/care management. The model supports the development of integrated care pathways, designed with the contribution of patients and nurses, and includes long life prevention and healthy lifestyles promotion. The aim is to increase the quality of life of frail old population, particularly those living in isolated territories, through innovative models of healthcare delivery with multidisciplinary professional teams. The master has been also designed in response to the reform of the Regional Health Care System, which is carrying out the conversion of hospital-based care to a new model of community-based medicine. Each community nurse, trained in the Master, will take responsibility of a number of elderly	Università degli Studi di Torino; Università del Piemonte Orientale (Novara)	Università degli Studi di Torino; Università del Piemonte Orientale (Novara); S.Luigi Hospital (Torino)	Professors teaching in the course are: experienced nurses

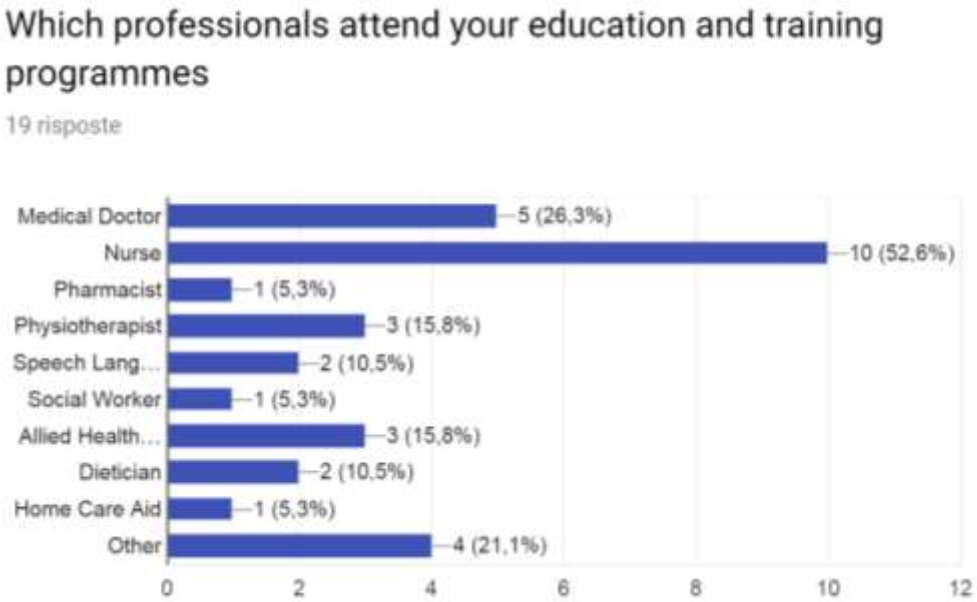
		people			
Emilia-Romagna	**Paziente esperto (expert patient)**	The region has developed a patient training, in collaboration with GPs and nurses, on self-management of their chronic condition.	Regional diabetes and COPD associations	Non profit	Nurses GPs Specialists
Emilia-Romagna		Module on physiological frailty in the older subjects	Università di Parma		
Campania – 1	**Medical School Residency in Internal Medicine**	Residency Directors of the three Campania Medical Schools: Federico II, SUN, Salerno	Public	Clinicians Formal training	Italian Ministry of University, Campania Region
Campania – 2	**PhD program in Clinical and Experimental Medicine with cardiovascular and geriatric focus**	Federico II University	Public	Clinicians Formal training	Italian Ministry of University, Campania Region
Campania – 3	**PhD program in Translational Medicine for development and healthy ageing**	University of Salerno Department of Medicine	Public/Private	Clinicians, researchers	Italian Ministry of University, Campania Region
Campania – 4	**PhD program in geriatric physiopathology PhD program in sciences of metabolism and ageing**	SUN	Public	Clinicians, researchers	Italian Ministry of University, Campania Region
Campania – 5	**Master in family and community nursing**	Federico II University Medical School	Public	Clinicians, researchers	Italian Ministry of University

After the analysis of programmes reported, it was found that there were no specific programme entirely dedicated to the detection and prevention of frailty and the management of multimorbidity. For this reason, the research continued with the professionals directly involved in the issues. The following two chapters report the preferences and opinions of social and healthcare professionals in different European contexts.

5.4 Survey in EIP-AHA Action Groups participants

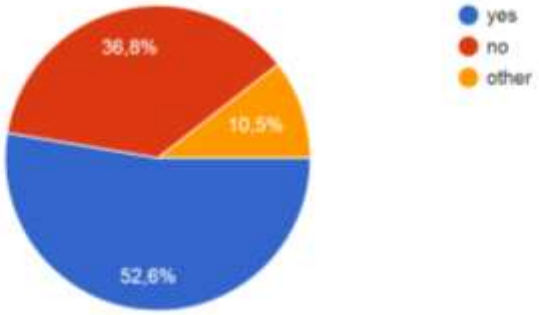
After findings on the primary care professionals' view were assessed, WP7 experts judged it could as well be profitable to inquire directly with the training programs designers about the theoretical structure on which their teaching is based. For this reason, WP7 provided partners and stakeholders of the EIP-AHA with questionnaires regarding such an overview. Project partners had already provided completed questionnaires (see 4.2 of this report), but an on-line survey was also submitted to EIP-AHA Action Groups. Despite several requests were done, only 19 participants replied to the survey. The results are illustrated as follows:





1. TRAINING TARGETS 1.1 Are there training targets set to improve the health and social care professionals' skills in health promotion for active and healthy ageing ?

19 risposte



1.1a If "yes" or "other" in Q1.1, please specify

8 risposte

We are searching for increasing good practices objective capabilites

national standards that have to be addressed

holistic approaches, multidomain interventions (social, medical, architectural, psychological, ...)

2nd year of the course called Nursing in chronicity and disability.
Al 2° anno di corso è presente un Insegnamento che si chiama Infermieristica nella cronicità e disabilità

In Northern Ireland it is not the role of University to identify training targets. For post-graduate/registration training needs - these are identified within Health and Social Care (HSC) Trusts and commissioned by Department of Health (DoH).

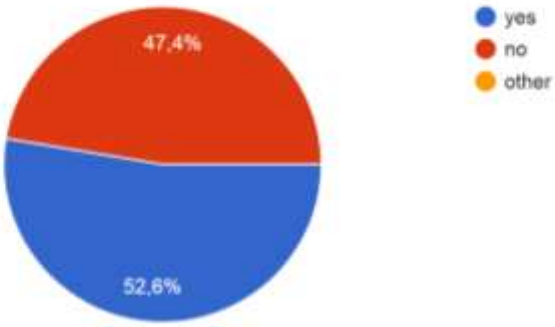
Although the training for the Specialist Trainees in Geriatrics does not include the above, the curriculum does include specific grids for Chronic disease management, Disability and Rehabilitation.

The starting point of the training is to strengthen the sustainability of the client and his social environment. In addition, the nurse interventions of the training shall, wherever possible, aimed at strengthening the self management of the client.

NID pervention program, Healthy Food and Fisical Activity program, Palliative Care promotion project

1.2 Are there training targets set to improve the capacity of health professionals in detecting and/or managing frailty in the older adults (≥65) population?

19 risposte



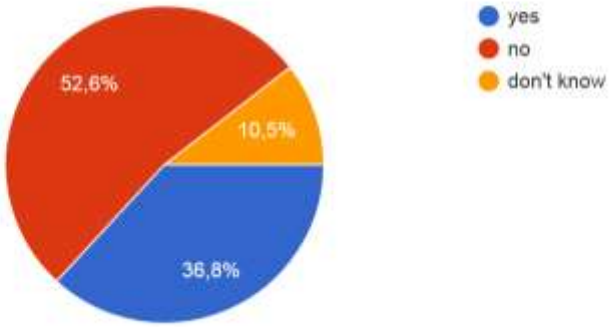
1.2 b If "yes" or "other", please specify

14 risposte

-
same as 1.1
I have read about CME courses devoted to pharmacists in my country regarding frail elderly mangement
Multidimensional assessment tools, Plural-parametric evaluation: comprehensive geriatric assessment (CGA); personalized care and support plan
The teaching quoted above includes several modules: Geriatrics, Oncology, Neurology and Nursing
Management of FRailty and ist prevention in older adults (Learning objective in undergraduate Clinical Learning Objectives Catalogue)
Not role of University to set targets
No specific targets for this within HSC Clinical Education Centre
The current training curriculum has specific requirements which are essential in managing Frailty. These include Comprehensive Geriatric Assessment (CGA), Management of Acute and chronic illness, Disability, Multi-disciplinary working, Nutrition, Homeostasis and Tissue viability. Trainees also have enhanced exposure to management of patients in sub-acute and community settings through recently introduced 'Acute Care at Home' (ACAH) and 'Enhanced Care at Home services' (ECAH). The British Geriatrics Society (BGS) has also provided guidance on the recognition and management of older patients with frailty in community and outpatient settings through 'Fit for Frailty' tool.
nn
A part of the training is focused on the identification and management of frailty.

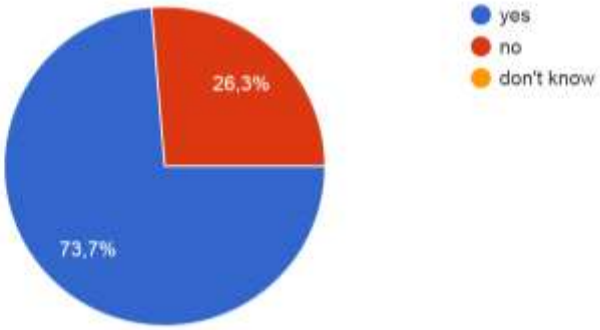
1.3 Are there training targets clearly addressing the difference between frailty, multimorbidity and disability?

19 risposte



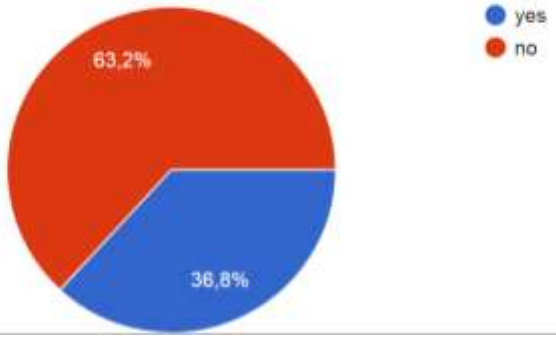
3. TRAINING OFFER 3.1 Does the training you provide include programmes addressing frailty identification and management?

19 risposte



3.2 Do you have any training good practice in the care of older people and/or frailty prevention and management to share?

19 risposte



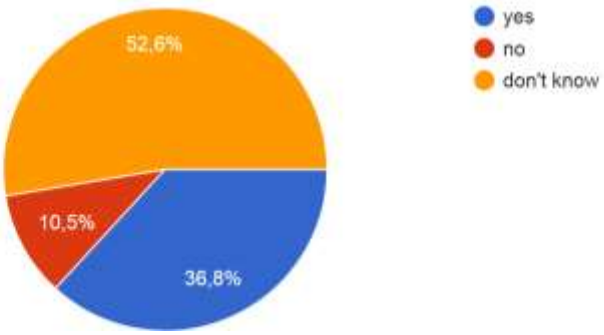
3.2a If yes, please give a short description

6 risposte

We are compiling specific behaviours as good practices in the mealtime
The environmental domain of frailty is included through architectural classes and visits ; Plural-parametric evaluation: comprehensive geriatric assessment (CGA); personalized care and support plan.
3 Day Leadership programme for care home staff - to instill the skills, knowledge and confidence needed for leaders in this sector to take proactive steps in inspiring and leading their teams towards better standards of care and reduce avoidable hospital admissions.
All the above domains are part of CGA which is incorporated in the Fit for Frailty tool.
MSc in Gerontology
In my opinion the Training (1-year) HBO-VGG (nurse Gerontology and Geriatrics)is a good training. I am also involved in a short training 'frail elderly' meant for physiotherapists.

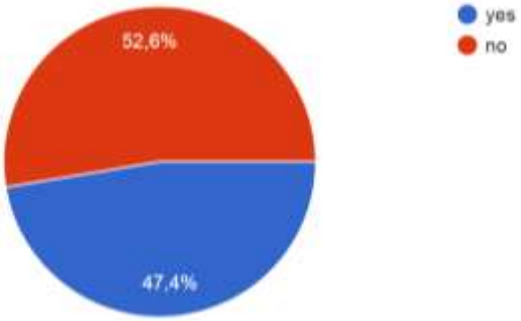
3.3. Are General Practitioners involved in training courses focusing on the management and prevention of frailty in older adults?

19 risposte



3.5 Do you offer multidisciplinary and interprofessional training for health and social care professionals addressing the care of older people?

19 risposte



3.5 a If "yes" in the previous question, please give a short description of your programmes

8 risposte

Training programs in manage of behaviour problems in Dementia, Assessment and Quality of Life

all undergraduate nurses and AHP students engage in shared learning

2 Masters and 14 University diploma (DU) in the fields of gerontology, geronto-psychiatry, cardio-geriatry, infectiology in older people, social & health management, frailty, integrated care pathways, nutrition for the elderly, therapeutic and drugs, case manager.

The multidisciplinary and interprofessional education is guaranteed that the Teaching includes modules where teachers are different professionals (geriatrician, oncologist, neurologist, nurse)

Short one day training programmes related to the management of patients with multiple morbidities

Interactive workshop to facilitate collaborative working - Fundamentals For Living Well. This one day workshop was commissioned to support a local Clinical Commissioning Group's 'Care Homes Scheme'. The input from participants throughout the course of the day was utilised by the CCG to support the development of meaningful outcomes in keeping with the ethos of the 'Care Homes Scheme' for people 'living as well as you can in your usual residence'

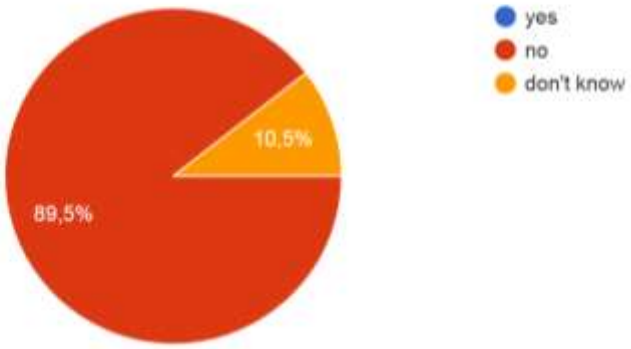
The above model of training is best suited to address the increasing service need of managing Frailty. At present this model is driven by individual specialities like Geriatrics but a regionally integrated approach involving all relevant specialities including Primary care will need developed.

1. Specific competency requirement in the Training curriculum.
2. Supervised Training and standardized assessments for Trainees.
3. Standardized approach in the implementation of CGA
4. Specific section for Frailty in development for the training curriculum.

Msc In Gerontology

4.2 Do you provide e-health and ICT literacy programmes involving citizens aged +65 and/or their informal carers?

19 risposte



(The first three respondents to the survey were from: UK, Spain, Italy, Croatia.)

5.5 Exploration of the view of primary care professionals

To understand the views held by primary care professionals on frailty in older adults, a preliminary study was conducted in Piedmont between March and April 2016. Thirty-three Italian primary care professionals meeting older adults in their daily activities have been interviewed during four multi-professional focus groups. In each focus group at least one of the following professionals was present: district nurses, general practitioners, home care workers, physiotherapists and social workers. During the focus group interviews an indistinct impression of what frailty is emerged. The physical domain of frailty appeared to be considered as a normal stage of aging, in fact, the geriatric definition of the frailty phenotype (Fried et al., 2001), as a status with five or more components, was never mentioned during the interviews. This lack of awareness of the importance of the early physical signs of frailty appears common in health care professionals and lay people as well (WHO 2017). This could lead to inappropriate management and delay or lack of delivering preventative interventions. The results suggested that the transition of frailty assessment from a secondary care strategy to one useful in primary care, requires proper training and assessment tools easy to be incorporated into daily care activities. The results also confirmed the concerns expressed by the WHO (2017) that the majority of health professionals do not owe the required knowledge and skills to intervene, promote health and prevent disease in older adults.

5.6 Building the model by testing SUNFRAIL RS training on frailty and multimorbidity

Partners of SUNFRAIL experimenting the model had also performed some short training activities for subjects in charge of testing the tool, in some cases using the short training information provided by WP7.
WP7 leaders took some preliminary site-visits to the partners' contexts and services where the experimentation of the SUNFRAIL model was taking place. Interviews with professionals were performed, particularly in Northern Ireland, within the Health and Social Care Board – Southern Trust in the Belfast area. A second area where the experimentation experience was observed was Liguria Region in Italy. Some of the experimentation phases and the interviews have been video-recorded. Differences between services were taken note of, and particular cultural and communication issues were faced, in order to provide the education experimental phase of WP7 with a hint about the specific contexts to consider. The interviews were focused on the professionals' and volunteers' experiences within the SUNFRAIL project and, in particular, about the administration of the questionnaire to final beneficiaries. Social workers, pharmacists, nurses, navigators and services' managers extensively explained their views about the project and the Tool. The Tool has been reported to be a very useful means to help the final beneficiaries to be addressed towards the services they needed. WP7 included the information collected during the site-visits in the final educational model, experimented a few months later.

6. TESTING THE MULTIDISCIPLINARY TRAINING MODEL AND TOOL DURING 2-DAYS COURSE IN PIEMONTE

6.1 Methodology

After an overview of existing models of education concerning frailty and multi-morbidity, WP7 set up, together with project partners, a short programme for an experimental course around the detection, prevention, and management of frailty and multi-morbidity. The basis for the course content was the use of the SUNFRAIL Tool, therefore a 2-days experimental course was carried out in the months of July and September 2017. The course was organised for a multi-professional audience. On the base of the local organisational model of care GPs, geriatricians, psychologists, nurses, physiotherapists, social workers, pharmacists and administrative staff were invited to attend the first 2 editions of the course. Experts who developed the SUNFRAIL Tool were invited to teach the audience how to proficiently use the tool, in order to address potential final beneficiaries towards the appropriate support or care pathways.

6.2 Concept mapping

The introductory part of the course was organised with the use of 'concept mapping'. The very first goal was to investigate about the concept of frailty that the participants referred to, in their daily work practice. The term 'concept mapping' refers to any methodology that is used to produce a picture or map of the ideas or concepts of an individual or group. There are several such methodologies and analogous approaches that go by such labels as 'idea mapping', 'mind maps', 'causal mapping', or 'cognitive mapping'. Concept mapping has several notable characteristics relevant for addressing problems in contemporary health care: it is purposefully designed to integrate input from multiple sources with differing content expertise or interest; it creates a series of maps that visually depict the composite thinking of the group; the maps constitute a framework or structure that can immediately be used to guide action planning, program development or evaluation and measurement.

The concept mapping process involves six major steps. In the preparation step, the focus for the mapping project is identified, participants selected, and project schedule and logistics determined. The generation of ideas is usually, but not necessarily accomplished through some form of brainstorming. The ideas generated are synthesized; and in the organization phase participants sort them and then rate them for one or more variables of interest (e.g. relative importance, feasibility). Participants are actively involved in the interpretation of the resulting maps. In the utilization phase, the maps and associated results are used to address the purposes of the project.

Participants were divided into multiprofessional work groups and had therefore the chance to discuss the different concepts of frailty they usually refer to in their jobs.

6.3 SUNFRAIL items description

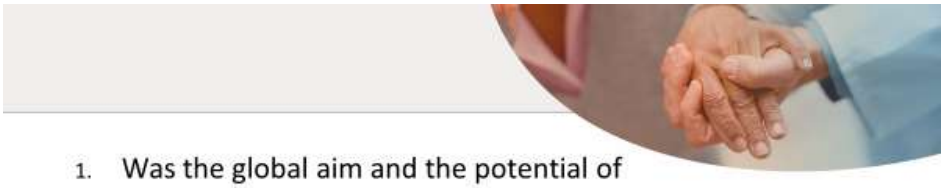
After this introductory stage, participants explored how the SUNFRAIL project elaborated a concept of frailty in community dwelling citizens aged over 65. Several examples were shown by the speakers, who were almost all also partners of the SUNFRAIL project and the authors of the SUNFRAIL Tool. The single items of the SUNFRAIL tool were described and thoroughly explained by the experts, going through the background of each of them. Participants were invited to share their own experiences and comments. Video material recorded in the experimentation sites was shown: common points and differences were discussed by the participants. All professionals interacted with each other, adding elements to the course contents.

At the end of the course's second day, participants were invited again to divide into groups and to re-assess their knowledge of the concept of frailty. Some participants' knowledge of frailty was quite close to the concepts elaborated by SUNFRAIL, whereas others realised that they thought frailty was a synonym of disability or acute health and social problems.

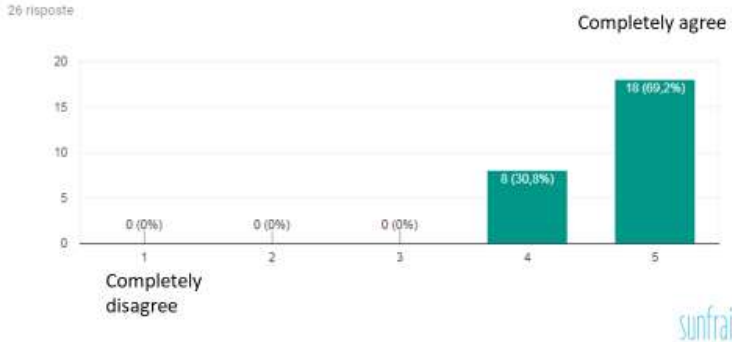
Amongst the main results of the course's experimentation there was one perfectly corresponding to the outcomes of the Exploration of the view of primary care professionals in a regional Italian context: the physical domain of frailty appeared to be considered as a normal stage of aging, in fact, the geriatric definition of the frailty phenotype (Fried et al., 2001) as a status with five or more components however was never referred to. Participants agreed about making an effort in considering alerts that could be generated by the SUNFRAIL tool items, focusing more on possible preventive interventions, rather than concentrating on advanced stages of frailty in older adults. All professionals felt their work could be part of an integrated network aimed at detecting and managing alerts referred to frailty conditions. They also acknowledged that the older adult population in the community should be involved in the definition of needs and problems, in the elaboration and management of possible responses to problems and in the evaluation of interventions. In order to comply to this aim, self-organization of interested subjects or groups should be promoted, so that they can become public, acknowledged stakeholders in their own contexts. Self-empowerment should enable final beneficiaries to be active for their own wellbeing.

6.4 Results: opinions of professionals

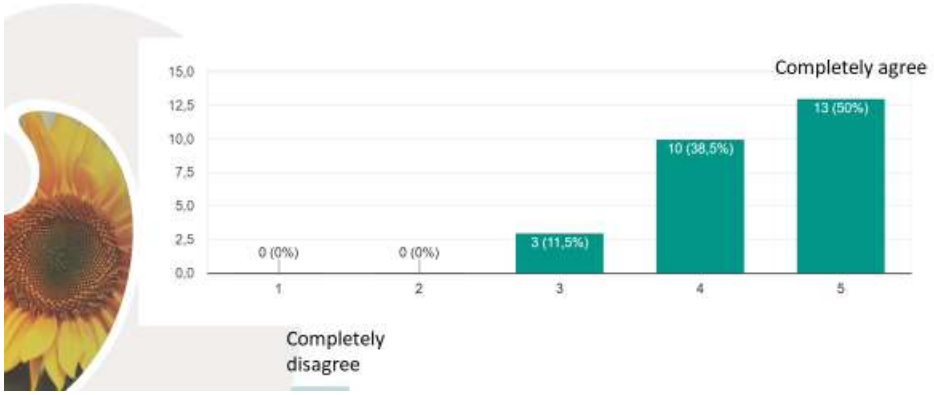
At the end of the second edition of the experimental course, participants were asked to fill in a questionnaire regarding the efficacy of the concepts delivered by the course. In the following section, the results of the participants' responses are reported.

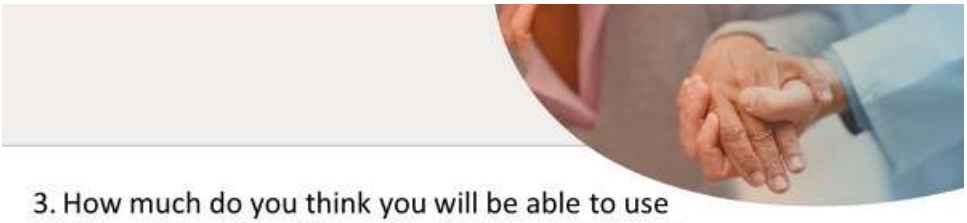


1. Was the global aim and the potential of the 9Q Tool clear and useful, in the frame of prevention and primary 'care'?

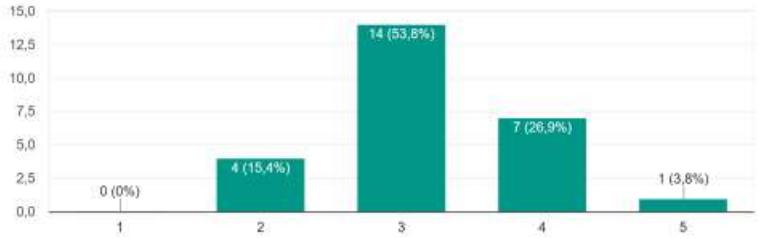


2. Did the course contents deliver to you different (and/or new) concepts of *frailty, polytherapy and multimorbidity*?

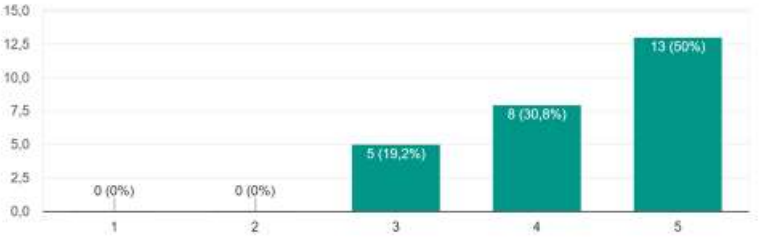


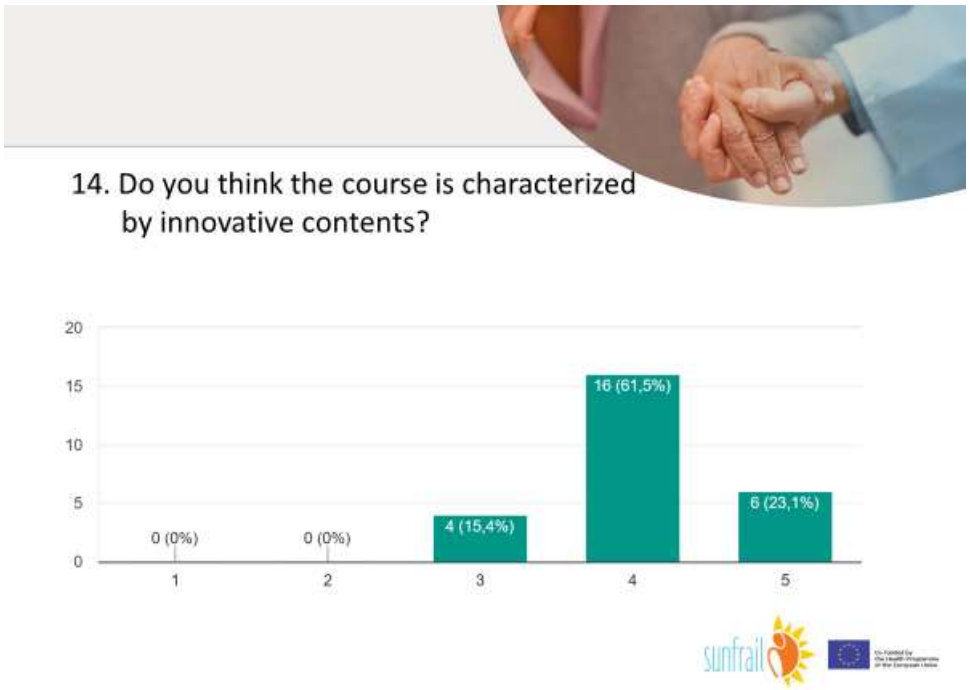


3. How much do you think you will be able to use what you have learnt in the Sunfrail experimental course in your job?



5. I am very motivated to use the course contents in my job, if I have the possibilities to





The participants also added some suggestions in order to improve the course: some of them reported that the part regarding socio-economic frailty should be developed more in depth; some other participants claimed that the integration between the three dimensions of frailty should be strengthened. As regards the course's methodology, most of the participants would have found it more appropriate to work on real cases and to have some more role-playing.

6.5 Potential for replication: requests for adoption from GPs, local health trusts, European Reference Sites, the Joint Action

The professionals participating in the experimental course informed their colleagues about the appreciation of the course's efficacy and innovative features. This resulted in a further dissemination of SUNFRAIL's outcomes and in the interest of several external stakeholders, both in SUNFRAIL partners' countries and others. During several dissemination events, the SUNFRAIL educational model raised interest in professionals and volunteering associations; furthermore, the participants of the European Joint Action on frailty, *Advantage,* that started between 2016 and 2017, have showed interest in the SUNFRAIL experimental training model. Specifically, Work Package 8 of the JA Advantage and WP7 of SUNFRAIL created a connection for synergy between the two initiatives.

Part of the educational model was also successfully experimented in the training phases of the European Project CONSENSO (*Community Nursing Supporting Elderly iN a Changing Society* - Alpine Space Programme). After having been trained on the contents of SUNFRAIL educational model, Family and Community Nurses participating in the CONSENSO Project (Italy, Slovenia, Austria, France) found the application of the tool very useful for detecting hidden elements of frailty in the older adults' population. The replicability of the training model is guaranteed by the results that emerged from the partner countries where, although some differences in the services were found in the previous stages of SUNFRAIL, also several common features in the tool's application can be fruitfully exploited, and used as a basis for a shared knowledge.

7. THE SUNFRAIL TOOL FOR HUMAN RESOURCES DEVELOPMENT

After the course experimentation, all materials were collected, so that it could be possible to adapt the course to different contexts and replicated. The Educational Tool is composed of an explanation of the SUNFRAIL Model of Care and the SUNFRAIL tool questions, together with reference material to be used by professionals. Since some SUNFRAIL partners also involved community navigators and volunteers in the SUNFRAIL tool application, the Educational Tool is organised by different levels: an easy to use handbook to provide both professionals and non-professionals with the necessary basic elements to apply the SUNFRAIL tool (9 questions). In addition, as reference material is listed, professionals can use more specific elements in the subjects if they want to investigate at a deeper level.

Further details on the Educational Tool are included as an annex to this report.

7.1 Recommendations on the application of the Educational Model and Tool

Overall the experimental course provided WP7 with very useful information about elements that are missing from the standard educational programmes for health and social care professionals, but also with elements that can be at hand for informal community activities.

An innovative multi professional course for health and social care professionals about the detection, prevention, and management of frailty should have the following features:

1. Explore throughout the reflective questions and the concept mapping the existing views on frailty held by the participants

2.Explain the multidimensionality of frailty according to the bio-psycho-social model of SUNFRAIL, and enhancing the reversibility of this condition;

3.. Addressing professionals from the health and social services;

4. Helping professionals to recognize frailty in the final ‘beneficiaries’ and to address it by using the resources available in the existing public services;

5. Training of community actors is fundamental to detect frailty in its early stages, also for those that do not reach professionals or services;

6. To develop an informal context for the administration of the Sunfrail Tool, helping the contact between beneficiaries and the investigator.

For the application of the Educational Model and Tool is recommended that different professionals and community actors involved in the care of older adults attend the course together. The interactive

atmosphere among a multi-professionals' audience attending the course could thus create a good network to boost early detection of frailty and multi-morbidity and to plan shared, integrated and preventative interventions to reverse or slow down the progression from frailty to disability.

REFERENCES

Bardach, S. H., & Rowles, G. D. (2012). Geriatric education in the health professions: are we making progress? *Gerontologist, 52*(5), 607-618. doi: 10.1093/geront/gns006

Center for Policy on Ageing. (2009). Ageism and age discrimination in secondary health care in the United Kingdom. A review from the literature. Retrieved 25 August 2014, from http://www.cpa.org.uk/information/reviews/CPA-ageism_and_age_discrimination_in_secondary_health_care-report.pdf

Cesari, M., Prince, M., Thiyagarajan, J. A., De Carvalho, I. A., Bernabei, R., Chan, P., . . . Vellas, B. (2016). Frailty: An Emerging Public Health Priority. *J Am Med Dir Assoc, 17*(3), 188-192. doi: 10.1016/j.jamda.2015.12.016

Clemens, E. L., & Hayes, H. E. (1997). Assessing and balancing elder risk, safety and autonomy: decision-making practices of health care professionals. *Home Health Care Serv Q, 16*(3), 3-20. doi: 10.1300/J027v16n03_02

Craig, J. V., & Smyth, R. L. (2007). *The evidence-based practice manual for nurses* (2nd ed.). Edinburgh ; New York: Churchill Livingstone.

Fairhall, N., Langron, C., Sherrington, C., Lord, S. R., Kurrle, S. E., Lockwood, K., Cameron, I.D. (2011). Treating frailty--a practical guide. *BMC Med, 9*, 83. doi: 10.1186/1741-7015-9-83

Fried, L. P., Ferrucci, L., Darer, J., Williamson, J. D., & Anderson, G. (2004). Untangling the concepts of disability, frailty, and comorbidity: implications for improved targeting and care. *J Gerontol A Biol Sci Med Sci, 59*(3), 255-263.

Fried, L. P., Tangen, C. M., Walston, J., Newman, A. B., Hirsch, C., Gottdiener, J., . . . McBurnie, M. A. (2001). Frailty in older adults: evidence for a phenotype. *J Gerontol A Biol Sci Med Sci, 56*(3), M146-156.

Gabbay, J., & le May, A. (2004). Evidence based guidelines or collectively constructed "mindlines?" Ethnographic study of knowledge management in primary care. *Bmj, 329*(7473), 1013. doi: 10.1136/bmj.329.7473.1013

Gobbens, R. J., Luijkx, K. G., Wijnen-Sponselee, M. T., & Schols, J. M. (2010). Toward a conceptual definition of frail community dwelling older people. *Nurs Outlook, 58*(2), 76-86. doi: 10.1016/j.outlook.2009.09.005

Gobbens, R. J., & van Assen, M. A. (2014). The prediction of quality of life by physical, psychological and social components of frailty in community-dwelling older people. *Qual Life Res, 23*(8), 2289-2300. doi: 10.1007/s11136-014-0672-1

Knight, P. V., Oliver, D., Wyrko, Z., Gordon, A. L., & Turner, G. (2014). Frailty related aspects of care are under-recognised in UK medical curriculae. *Bmj, 348*, g3325. doi: 10.1136/bmj.g3325

Levy, B. R. (2001). Eradication of ageism requires addressing the enemy within. *Gerontologist, 41*(5), 578-579; discussion 580.

Morgan, D. L. (1988). *Focus groups as qualitative research* (1 Ed.). Newbury Park, CA.: SAGE.

Morley, J. E., Vellas, B., van Kan, G. A., Anker, S. D., Bauer, J. M., Bernabei, R., . . . Walston, J. (2013). Frailty consensus: a call to action. *J Am Med Dir Assoc, 14*(6), 392-397. doi: 10.1016/j.jamda.2013.03.022

Rockwood, K., Song, X., MacKnight, C., Bergman, H., Hogan, D. B., McDowell, I., & Mitnitski, A. (2005). A global clinical measure of fitness and frailty in elderly people. *Cmaj, 173*(5), 489-495.

Romero-Ortuno, R. (2014). Frailty Index in Europeans: association with determinants of health. *Geriatr Gerontol Int, 14*(2), 420-429. doi: 10.1111/ggi.12122

Vellas, B., Balardy, L., Gillette-Guyonnet, S., Abellan Van Kan, G., Ghisolfi-Marque, A., Subra, J., Cesari, M. (2013). Looking for frailty in community-dwelling older persons: the Gerontopole Frailty Screening Tool (GFST). *J Nutr Health Aging, 17*(7), 629-631. doi: 10.1007/s12603-013-0363-6

WHO (2017) Integrated care for older people: guidelines on community-level interventions to manage declines in intrinsic capacity. Geneva: World Health Organization; Licence: CC BY-NC-SA 3.0 I

Annexes:

- SUNFRAIL TOOL for HUMAN RESOURCES

- Report on overview of existing educational programmes on frailty and multimorbidity