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Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative

JA2015 - GSPD [705038]
Project abstract

Managing Frailty. A comprehensive approach to promote a disability-free advanced age: the ADVANTAGE initiative

ADVANTAGE will build a common understanding on frailty to be used by Member States on which to base a common management approach of older people who are frail or at risk for developing frailty in the European Union. The identification of the core components of frailty and its management should promote the needed changes in the organization and the implementation of the Health and Social Systems to provide those models of care that, stemming from the particular health profile of each Member State (MS), will allow them to face the challenge of frailty within a common framework.

ADVANTAGE will summarise the current State of the Art for the different components of frailty and its management, both at individual and population level, will collect information on the development of programs to manage frailty in older adults in the EU and will propose, as its main outcome, a common European model to approach frailty. This model will include a road map that, considering the degree of frailty policies' development, will propose interventions for frail and at risk people and will establish tailored milestones for each MS in order to achieve a comprehensive approach to promote a disability-free advanced age. Furthermore, the model will identify gaps of knowledge in the field that would benefit from further research.

Summary of context, overall objectives, strategic, relevance and contribution of the action

Demographic ageing is one of the most serious challenges that Europe is facing. Life expectancy at the age of 65 years, and even at 80 years, has increased and is expected to continue increasing beyond 2020. This segment of the population is at greatest risk of becoming frail and developing disability. Nevertheless, recent data suggests that this disability trajectory can be changed, providing the opportunity for older adults to live long healthy lives without loss of function.

As frailty is not an inevitable consequence of ageing, we need a commonly agreed focus on early diagnosis and screening. An emphasis on prevention can reduce the incidence of frailty. Disability can be avoided by detecting and treating frailty at an early stage and preventing potential decline related to malnutrition, lack of adequate physical activity, cognitive deterioration, falls or other problems.

Addressing the demographic change and the associated increasing demands for social and health care from the burden of chronic diseases, frailty, disability and old age is a central priority for the EU and its MSs. There is a need for sustainable and coordinated approaches which explore the potential for
prevention and for re-shaping health care provision. ADVANTAGE JA will help progress at EU level in the area of frailty prevention and may facilitate the national development of frailty prevention policies.

MSs’ collaboration and cooperation in this JA to tackle a common public health issue such as frailty, disability and older people’s health care needs could be considered an ‘added value’ model within EU. It will help to avoid scattered actions and duplication of efforts by MSs and will support them through the development of a common framework by sharing information, capacity and expertise to implement frailty prevention policy.

ADVANTAGE JA will build a common understanding on frailty to be used in Member States (MS), which might be the base for a common management both at individual and population level of older people who are frail or at risk for developing frailty across the EU. The identification of the core components of frailty and its management will promote the needed changes in the organization and implementation of care in the health and social systems to provide the models of care will allow to face the challenge within a common European framework.

To this end, ADVANTAGE JA will summarise the current state of the art of the different components of frailty and its management, both at a personal and population level; will collect information about ongoing programs to address frailty in older adults across the EU and will propose a common European model to prevent and manage frailty and may facilitate the national development of frailty prevention policies.

ADVANTAGE JA will develop the concept of the ‘Frailty Prevention Approach (FPA)’ in health and social care services, by encouraging consensus and developing common frameworks on screening, prevention, assessment and management of frailty throughout the EU.

ADVANTAGE JA responds to the thematic priority 3.5 of Annex I to the Regulation of the 3rd Programme for the Union’s action in the field of health 2014-2020 (“Support actions which address health issues in an ageing society, including relevant actions suggested by the European Innovation Partnership on Active and Healthy Ageing in its three themes: innovation in awareness, prevention and early diagnosis, innovation in cure and care and innovation in active ageing and independent living”).

ADVANTAGE JA Consortium ensures pertinent and meaningful geographical coverage by bringing together 35 partners from 22 MSs, with a wide diversity of countries and regions with very different health systems, diverse health and social policies and different cultural, social and economic backgrounds. This scenario represents a formidable challenge but also a great opportunity for concerted action resulting in fostering ef
Methods and means

The ADVANTAGE JA implementation process is divided in three phases, depending on the main actions undertaken and the expected results that will be achieved in each of the three years’ timeframe. Thus,

• Phase I (2017), corresponds to background information collection, analysis and rational discussion and drafting of preliminary documents.
• Phase II (2018), corresponds to developing and testing the draft version of the frailty prevention approach (FPA) document.
• Phase III (2019), corresponds to drafting final documents, debating these with participant MSs, and drafting the final framework, roadmaps for FPA and policy recommendations.

The systematic structure of our efforts and ways we will work to implement the objectives for 2017, includes the following activities to be undertaken:

The methods for achieving the objectives of this JA embrace several strategies, activities and outputs that will be delivered over the three years’ timeline. For clarity these are explored in different bullet points, although in the majority of cases they are interlinked and during the process several stages will be simultaneously developed or even overlap.

Work performed during the reporting period

The activities to be performed on 2017 (reporting period 1) are:

• Review of the literature relevant to the topic, both published and grey. To ensure a homogenous approach by all partners a protocol was designed, agreed and will be applied.
• Release a set of different documents which will explain and synthesize the conceptual reasoning supporting the recommended actions, the framework for developing policies and the roadmaps for initiating or following up the FPA.
• Holding meetings and forums. Mainly four different kinds of meetings will take place: Consortium partners (kick-off meeting, held on 19-20 January 2017); meetings with WPs leaders and co-leaders; meetings with national, regional or local stakeholders; and Meetings of the Governance Structure: Steering Committee, General Assembly and Follow-up.
• Expert consultation. Set-up of Expert panel.
Create awareness and dissemination of results: An "Awareness, dissemination and communication Plan" will be defined.

Conceptualization and articulation of ideas: Advance the process of development and clarification of concepts with words and examples and arriving at precise verbal definitions. Partner’s intellectual work and debates using their expertise. Agreed sources of information including key stakeholders identified in MS. Ideas will be constructed in light of the need to enhance, re-shape care for ageing population and the EU demographic prospect.

The main output achieved so far and their potential impact and use by target group (including benefits)

As at the first trimester of the implementation of the JA, the follow interim outputs have been achieved:

- Launching of the ADVANTAGE Joint Action with the Kick off meeting held on Madrid on 19th and 20th of January 2017. A total of 64 participants, representing the 22 Member States and over 40 organizations that form the Consortium attended, as well as invitees from several EU funded projects and representatives from the European Commission (DG SANTE and CHAFEA) and Spanish health authorities. The meeting was devoted to present and discuss the main issues of the JA and to agree on management, contents, procedures and deadlines.
- ADVANTAGE JA Risk Management and Contingency Plan (Deliverable 1.1) which establishes procedures to recover the JA following a disruption or alert of malfunction in respect to the Grant Agreement (GA), the Consortium Agreement (CA) and or the agreed Work Plan.
- Set-up of Governance structure: Steering Committee and General Assembly.
- ADVANTAGE Logo has been designed and is being used systematically in the JA documents and communications.
- Background documents to set-up common criteria to collect and process the information for frailty state of art.

Achieved outcomes compared to the expected outcomes

The majority of the expected outcomes for the first trimester according to the GA have been achieved. (see previous section). The main expected outcome for 2017 will be updated peer-reviewed
information on state of the art on frailty prevention in the participant MS. It will answer the following questions: what should be done; the best way of doing it; what are the expected results when changes are implemented; the concepts to be used; the rationale supporting the need of a different approach and management of frailty to the usual approach to CD.

Dissemination and evaluation activities carried out so far and their major results

The launching of the JA that took place at the kick-off meeting in Madrid, Spain was covered by the national media in a number of newspapers and professional web-sites, as well as those platforms and digital media related to frailty, chronic diseases, primary health care, technology and older people.

A number of media contacts have been identified for future awareness on frailty issues and communication and dissemination of JA progress.

Regarding the evaluation activities (WP3), a survey was distributed among participants to evaluate the kick-off meeting. The results show a very high satisfaction both with the organisation and the achievements of the meeting. WP3 is currently elaborating the Evaluation and Quality Plan scheduled by April 2017.
Work package

Work Package 1: Coordination of the JA
Start month: 1
End month: 36
Work Package Leader: SERMAS-HUG

Lead Beneficiary: SERMAS-HUG (Spain, leader), INCLIVA (Spain, Co-Leader)

Task 1.1. Technical coordination and results integration (Leader: SERMAS-HUG). The JA coordinator, SERMAS-HUG, will perform the overall coordination, will be responsible for the timely delivery of all reports, as well as to manage the official meetings.

The coordinator will also be responsible for the technical co-ordination of the JA with assistance from the Steering Committee (SC) which involves the following: detailing all tasks to be performed; defining all documents to be drafted; establishing the information and communication flow and feedback to the partners ensuring a smooth running of the JA; coordination and compilation of deliverables and analysis of information and integration of results, organizing the scheduled meetings (face to face or virtual) and any extraordinary meetings, when needed, with WP leaders. Furthermore, the coordinator will also resolve technical conflicts that might appear. All partners shall be responsible for the technical management of their own work, and will contribute to the reports and deliverables. SERMAS-HUG will coordinate the relationship between the different consortium bodies, the SC and EAB will be established.

Task 1.2. Administrative Project Management (Leader: SERMAS-HUG). It includes the following: preparing and chairing team meetings; preparing status reports; conflict resolution mechanisms and hands-on supervision; revision and approval of deliverables; organization and chairing of meetings; monitoring progress against the milestones, the budget and compliance with contract; elaboration and distribution of status reports and progress account; set-up and maintenance of JA archive; reporting to the EC; response to audits to be carried out e.g. by CHAFEA providing the requested information and supporting documents.

Task 1.3. Risks Management (Leader: SERMAS-HUG). A risk management and contingency plan will be developed based on identified potential risks that could impede the execution of certain phases of the JA. Problems will be dealt with as soon as they emerge. Provision will be taken to minimize potential problems.

Work Package 2: Communication, Awareness and Dissemination
Start month: 1
End month: 36
Work Package Leader: ARS
ARS-Regione Marche and BBU are sound institutions to lead the WP
Communication, awareness and Dissemination for their respective background
expertise and networking 1) ARS-Regione Marche has regular relationship with key
decision makers at EU, national and regional level; has extensive member networks
thanks to its involvement in EU work; has access to experts in the field of ageing,
public health and health promotion; has sound expertise in promoting older people
health and active ageing. 2) UBB is the leading public institution of higher education
in Romania; expert at informing the development of public health programs; it is
involved in numerous research projects at national and EU-level.

The dissemination strategy will be carefully planned to reach the specific target
groups at national and European level. The dissemination plan will be performed
within the indication of chapter 5.

Task 2.1 Development of the dissemination, awareness and communication plan
(Leader: ARS- Regione MARCHE) M1-M36

ARS Regione-MARCHE will develop a dissemination plan, carefully tailored to target
policy makers at regional, national and European level at an early stage, as well as
cover relevant stakeholders from both health and social sectors (public and
private), including, practitioners, Associations of the elderly, at governmental and
nongovernmental sectors, researchers and academics at EU, national, regional and
local level.

Dissemination will start at the onset of the Action (M1) while the initial
dissemination plan is developed to be completed at M3. This plan will be a living
document and will be carefully monitored and updated to reflect changes in
timelines and emerging results. The plan will articulate different tools according to
the communication targets, prioritize channels, plan for the creation of re-usable
content (presentations, illustrations, photographs, short videos, articles, slides)
which will be attractive and quick to consult policy makers at national and EU level.
In addition, a stakeholders database to facilitate the partners in their systematic
involvement in the activities at the loco-regional, national and international levels
will be compiled.

The main dissemination tools, such as the website (M3), leaflet (M3), final layman
report (M36) and all communication materials will be produced in English and
translated into the principal EU working languages (German, Italian, Spanish and
French) by experienced translators in the field of policy and political guidelines.
Each partner will ensure that the outputs will be translated by expert translators in
their native speaking language when needed to address specific audiences.

The following communication tools will be included:
- The JA website, facebook page, twitter account, and available existing platforms
  (like HELI)– they will be strategic contact tools aimed both at policy makers,
  professionals and end-users, where they can find hypertexts and information, as
  well as the JA outputs such as the leaflet, the intermediate and final report, the
  layman report and any published article or communication material. Both Facebook
  and Twitter will also be employed to elicit feedback and comments from key
  stakeholders;
- A six monthly e-newsletters – in the e-newsletters the appropriate conferences,
congresses and publications to ensure the widespread dissemination of the messages coming out of this JA will be highlighted;

- Local and national media press release and articles on local and national newspapers or other relevant papers; TV; etc)

Each partner is responsible for the awareness and dissemination on the media. We will seek at least one press release every 6 months in their own language for which ARS-Regione Marche will provide an English template.

We will regularly assess the effectiveness of our communication activities by keeping track of objective measures such as website visitors,

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**Work Package 3: Evaluation of the JA**

*Start month: 1  
End month: 36  
Work Package Leader: INRCA*

Lead Beneficiary: INRCA Italy (WP Leader) and DGS Portugal (WP Co-leader)

**Task 3.1. Definition of the evaluation framework (Leader: INRCA).**

An overall evaluation strategy plan will be developed at the beginning of the JA. In order to do so, during the first meeting, a draft evaluation plan will be presented by INRCA and DGS and shared with all the partners. At this early stage, the most appropriate information system and the method for data collection will be discussed. These will include questionnaires, self-assessment forms for the WP leaders and additional methods such as critical point models and risk analysis. Moreover, WP3 will carry out the assessment and analysis of the results contributing to the overall gathering and spreading of information pursued by the JA. Each deliverable and milestone will be assessed both from a quantitative and qualitative point of view by INRCA. Although monitoring will represent a continuous process starting and ending with the JA, at three specific time points (month 10, 30, 36) an evaluation report will be released.

The evaluation will use a list of indicators on process, output and outcomes. In particular, it will be planned activities such as:

- Regular review meetings with Work package Coordinators (usually via telephone/videoconference), in order to agree milestones and review dates; analysis and assessment of outcomes in relation to the users needs in each review.
- Analysis of the feedbacks from workshops and plenary meetings will be assessed by a pertinent questionnaire in order to ensure that workshops and plenary meetings achieved their stated aims.
- Continuous monitoring of the participation rates by associate and collaborative partners.

**Task 3.2. Process evaluation and management of quality (Leader: DGS, quality manager).**

JA documents and other results, adherence to the work plan and monitoring the progress in all the WP (in terms of project plans and quality measures). WP leaders will be asked to fill in self-evaluation tools. Likewise questionnaires will be circulated among all the other partners, assessing their level of involvement and satisfaction with the implementation process. Special attention will be given to the deviations from scheduled time planning. Results from the process evaluation will
be circulated amongst all WP leaders in order to consider them in the versions of the deliverables.

Task 3.3. Output evaluation (Leader: INRCA).
The evaluation of deliverables will be carried out ensuring they are produced on time and with the suitable quality. The task leader will set up an internal committee, composed by professionals with different disciplinary background, working at INRCA and interested in the process of frailty prevention, which will review all JA deliverables before their final version. Written feedbacks will be sent to the competent task leaders. Likewise, the timely and appropriate achievement of the expected milestones will be monitored throughout the JA implementation with a similar method.

Task 3.4. Output and impact evaluation (Leader: DGS).
This task will assess the intended, unintended and short-term effects of the JA, using surveys amongst the JA partners and relevant stakeholders organizations. Part of the impact evaluation activities will assess the degree to which the JA results will be incorporated into national documents and policies.

Work Package 4: Knowing frailty at individual level
Start month: 1
End month: 36
Work Package Leader: UCSC

Lead Beneficiary: UCSC (leader) and NIGRiR (co-leader).
T4.1: Definition (leader MHH, Germany) months 1-12.
Definition of frailty will be based on review of a) the scientific literature; (building on previous work and results from EIP AHA and EU funded related projects; b) ongoing initiatives focused on frailty in the participant MSs. Building on results of these reviews, a group of experts will standardize and operationalize a common definition of frailty. Experts involved in this process will include not only researchers (academia), but also regulators, stakeholders and patients organizations.
T4.2. Screening (leader: LSMU, Lithuania; Co-leader: INCLIVA, Spain; months 1-36)
A review of current screening tools for frailty will be performed, based on existing literature, and building on the results of the EIP AHA work. The results will be discussed in an expert meeting, that given the close link with T4.1, will have the same expert panel identified for T4.1. Experts will be asked to rate the scientific validity of the tools and their applicability in different context and settings and to identify most valuable tool(s) for screening of frailty.
Clinical, anthropometric, lab and image biomarkers useful to improve the performance of the screening of frailty will be assessed by review of the scientific literature. In addition, already existing datasets, including biomarkers data, available among WP partners will be analysed. Only already existing data on biomarkers will be used to this aim and no additional biomarker determination will be performed.
Concurrently we will collect information on the instruments used in each participant MS to establish where and which of the instruments are used, in order to raise recommendations during the 2nd and 3rd year of the JA, according to the general procedure described in the Methods section.)
T4.3. Diagnostic tools (leader CIPH, Croatia; Co-leader: INCLIVA, Spain; months 1-36)

Similarly to tasks in T4.2 a review of existing diagnostic tools for frailty will be performed, based on existing literature and discussed during an expert meeting. Given the close link with T4.1, the same expert panel for T4.1 will be involved. Experts will be asked to rate the scientific validity of the tools and their applicability in different context and settings and to identify most valuable tool(s) to diagnose frailty. Concurrently we will collect the instruments and biomarkers used in each participating MS in order to establish where the “best” instruments (selected in the first semester) are used, in order to raise recommendations during the 2nd and 3rd year of the JA.

T4.4. Relationship between chronic disease-frailty (leader: MUG, Austria; Months 1-28).

Aim: Chronic diseases (CD), disability and frailty are used interchangeably to identify vulnerable older adults. However they are distinct clinical entities that are causally related, they are often associated and overlapped. All three occur frequently and have important clinical consequences. But what really compromises the quality of life is function and not disease. There is a need to distinguish between them because frailty offers higher predictive value than CD for adverse outcomes. Furthermore, the best predictor of function is frailty. The relationship between CD and frailty will be assessed by review of available scientific literature and on the results of the EIP AHA work secondary analyses of already existing datasets available in participant MSs. will be performed to assess the association between them. A strategy for a common data analysis will be developed and adopted.

The results will be discussed in an expert meeting with partners involved, the coordination team and WP leaders and co-leaders of related WP to draw conclusions and approved its contents.

Work Package 5: Knowing frailty at population level

Start month: 1
End month: 36
Work Package Leader: HSE-NUIG

Lead Beneficiary: HSE-NUIG (leader) and ISS (co-leader)

Task 5.1. Determining frailty prevalence (Leader: HDir, Norway), month 1-12

Examine the prevalence of frailty across participant MSs by performing a review of existing data, identifying existing gaps if any. Determine the prevalence of frailty states in different settings. Identify projections for future incidence and prevalence rates including challenges and potential solutions to future data collection.

Task 5.2. Screening, surveillance and monitoring of frailty at population level.

Leader: ANSP, France, month 1-12.

Examine current practice in participant MSs with regard to the 3 fundamental steps to determine frailty status at population level; screening, surveillance, and monitoring.

For each of these steps a review of the literature will be performed, consulting reliable and pertinent sources to identify any frailty screening, surveillance and
monitoring programme. The search will include the following: a) identification of strategies at population level, evaluating the evidence for different approaches and settings. b) review of current surveillance/monitoring approaches. c) identification of the prevalence of diseases and conditions related to frailty. d) suitable outcome measures (variables-predictors) which are important to monitor risk of developing frailty, progression and likelihood of adverse healthcare outcomes over time (e.g. death, hospitalisation). e) Identification of new models for the surveillance and monitoring of frailty including ICT based systems. This will lead to a draft report describing the state of art situation and background situation in participant MSs and recommendations for implementation of frailty screening, surveillance and monitoring in participating MSs.

It will be presented and discussed with a panel of experts (see previous WP), the coordinator team and WP leaders and co-leaders. A final document will be released enriched by the debate conclusions.

Task 5.3. Frailty trajectories (Leader: WIV-ISP), month 1-12
By literature review the state of art regarding the following. a) frailty trajectories. b) risk factors and protective factors for frailty transitions. c) Identify important trajectory groups (e.g. those at high-risk of progression) and d) strategies to identify and target these trajectories at a population level linking in with T5.2.

Task 5.4. Frailty at primary healthcare settings (Leader: Junta de Andalucia Spain), month 1-36
General practitioners (GPs) are increasingly confronted with frail patients. Some of the instruments for frailty assessment are not suitable for primary care settings as they require too much time. The usefulness of the CGA appears well established, but the element that appears discriminant is the organization of health-care interventions around the older patient. Frailty leads to recurrent hospitalization, institutionalization, acute events and also death. As this syndrome is dynamic and potentially reversible, screening and early intervention should therefore be a priority in primary health care.

The findings and state of the art report in this area will contribute to the findings from related tasks areas (e.g. screening, surveillance/monitoring and trajectories at a population level).

Work Package 6: Managing frailty at individual level
Start month: 1
End month: 36
Work Package Leader: NIJZ

Lead Beneficiary: NIJZ (leader) and UPAT (co-leader)
Task 6.1. Prevention (Task leader: ANSP, France), month 1 to 35
Survey of good practices by Member States on healthy ageing (functional ability and intrinsic capacity) for prefrail or frail people based on the analysis of individual, social and environmental determinants. Identify aids and hindrances of health promotion linked to communication, social inequalities, working conditions, gender and living conditions. Share these examples with Member States and identify common key success factors. Identify the appropriate age to start the prevention of
frailty (during lifetime or at a key age). Establish the role of the elderly in society and of their family carers’.

Task 6.2 Clinical management (Task leader: NIGRiR, Poland), month 1 to 35
The main focus on this task will be the survey of good practices by Member States on clinical management of an individual with frail syndrome. The analysis of those models will identify common key success factors and help to construct the optimal clinical management plan for frail patients. Key features of this plan should be improvement of clinical treatment coordination, patient-centered care that includes plans for preventing escalation of frailty and ensuring holistic healthcare. The optimal clinical management plan for patients should improve ADL factors, reduce nursing home placement, hospitalization, hospital length of stay and costs, improve patients satisfaction.

6.3 Nutrition(Task leader: MZČR, Czech Republic), month 1 to 35
Analysis of risks of inappropriate diets on chronic disease increasing risk of onset or worsening of frailty (literature review, desk top research) – individual level. Analysis of risks of inappropriate diets on chronic disease increasing risk of frailty (literature review, desk top research) – in health and/or social facilities for older people, hospitals, clinics and community services for elderly. Synthesis of national examples of good practices to find determinants of diets (nutrition) as primary prevention of frailty, and special dietary requirement for known and/or diagnosed chronic diseases (e.g. diabetes, osteoporosis) and their combination (country profiles). Identification of feasible methods and indicators of pre-frailty related to nutrition for practice in primary care setting and/or health promotion services (according to health care systems organization in partners countries): eg. blood level of cholesterol, glucose, lipids and other more specific.

Task 6.4 Physical exercise (Task leader: NIHD, Hungary), month 1 to 35
The physical activity task aims at innovating the conceptual understanding of physical activity interventions in Europe. The task will develop a comprehensive approach for physical activity among the ageing population. The final product will be a guideline for policy and practice with (max) 20 high impact potential interventions that together will improve physical activity of the ageing population. This guideline will contain relevant suggestions for policymakers, for practitioners and for training institutions which want to include training for physical activity into their curriculum.

Task 6.5 Drugs (Task leader: NHS, Lanarkshire, UK), month 1 to 35
Mapping of current policy and practice to identify transnational learning in pharmaceutical care for frailty and people with multiple conditions. Survey to identify current policies, programmes, guidelines and good practice. Assess transferability and potential for scaling up models of pharmaceutical care. Gather case studies that describe the impact on people’s care experience and outcomes.

Task 6.6 ICTs (Task leader: Kronigune, Spain), month 1 to 35
Mapping and analysis of existing ICT tools and Apps: a) prevention, screening and support of frailty; b) detection, diagnosis, treatment and/or monitor frailty in
clinical practice; c) increase the resilience and h

**Work Package 7: Models of Care to prevent or delay progression of frailty and enable people to live well with frailty**

Start month: 1  
End month: 36  
Work Package Leader: NHS LANARKSHIRE

Lead Beneficiary: NHS Lanarkshire (leader) and CSJA (co-leader)

**Task 7.1. Assessment of models of care for long term conditions (Leader: MASSDF), month 1 to 12**  
Analysis of the transferability and potential for scaling up models of integrated care and support for long-term, chronic conditions relating to frailty (transnational learning).

**Task 7.2. Knowledge transfer in primary health care (Leader: HSE-NUIG), month 1 to 36.**  
Identification of innovative models of person-centred care and support to tackle frailty in primary care.

**Task 7.3. Action learning on new / innovative models of community support for older people and their carers to prevent or delay progression of frailty and enable people to live well with frailty (Leader: THL), month 1 to 18.**  
Includes the development of narratives to describe these models in layperson terms and illustrate the impact on people’s care experience and health related outcomes.

**Task 7.4. Knowledge transfer in social care. (Leader: THL), month 1 to 36**  
Identification and analysis of how these models of care can be implemented by carers in daily life in practical terms.

**Task 7.5. Knowledge transfer in hospitals and transitional care to prevent or delay progression of frailty and enable people to live well with frailty. (Leader: NHS Lanarkshire), month 1 to 36.**  
This task includes the development of narratives to describe models in lay terms and illustrate the impact of care on patient experience and health related outcomes.

**Task 7.6. Analysis and lessons learned from established comprehensive care models (Leader: Kronikgune), month 1 to 24.**  
An analysis of how integrated care models are being implemented and the outcomes that these deliver for the individual and health and social care systems will be performed. Different experiences (and levels of evidence) will be considered such as case-studies. These will be analysed for the purpose of learning and extracting lessons.

An analysis of the costs and benefits for systems and populations from these
models will be performed to inform the business case for investing in early interventions to prevent frailty and functional decline. An evaluation of outcomes from this model (case-studies) to inform decision-making by policy makers and providers will be performed. An evaluation of the impact of interventions will be conducted. The following components will be considered: potential to scale-up successful population health approaches, quality of life, ADL; death; incident falls; disability and cognitive impairment; place of care; place of death and use of resources.

Work Package 8: Extending and Expanding the knowledge on frailty to foster innovative policy on frailty
Start month: 1
End month: 36
Work Package Leader: MUG

WP8 - Extending and Expanding the knowledge on frailty to foster innovative policy on frailty [Months: 1-36] MUG, SERMAS-HUG, SPRI, ARS, UCSC, UBB, INCLIVA
MUG Austria (leader) and INCLIVA Spain (co-leader)

Task 8.1. Building workforce capacity on frailty prevention (Task Leader SPRI), M1 to M36
Assessment of the content, scope and gaps on frailty and its prevention in the curricula of the participants MSs health workforce. It will imply the following: Web search and focus groups; Development of basic recommendations for a competence based educational approach on frailty prevention adjusted to MSs public healthcare systems; Draw conclusions to inform policies (knowledge transfer); and recommendations for scaling-up at transnational level the a curricula for the health workforce with a frailty prevention approach.

Task 8.2: Building the framework to design programs which identify and manage the knowledge gaps on frailty (Task Leader UCSC, Italy), M1 to M36
It will imply the following: Literature review and source data search for preexisting un-solved questions, to assess the main gaps of knowledge; Expert panel meetings with representatives from WP 4, WP5, WP6 and WP7 to further elaborate on evidence gaps tailored to the conclusions and deliverables from these WPs; recommendations for an agenda for training and research on frailty that will be part of the Frailty Prevention Approach document (FPA).
## COORDINATOR

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<tr>
<th>Institution Name</th>
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<tr>
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<tr>
<td>Layman version of the final JA report</td>
<td>ARS</td>
<td>Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative (ADVANTAGE) Expected on: 01/01/2020 This is a short (e.g. 10 pages) version of the final JA report, targeted to the stakeholders</td>
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<td>Final Evaluation Report</td>
<td>INRCA</td>
<td>Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative (ADVANTAGE) Expected on: 01/01/2020 Final Evaluation Report</td>
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<td>European Guide for knowing frailty at a population level including recommendations and roadmap</td>
<td>HSE-NUIG</td>
<td>Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative (ADVANTAGE) Expected on: 01/11/2019 Final report knowing frailty at a population level including recommendations and roadmap</td>
</tr>
<tr>
<td>European Guide for management of frailty at</td>
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individual level including recommendations and roadmap
NIJZ
Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative (ADVANTAGE)
Expected on: 01/09/2019
Final report knowing frailty at an individual level including recommendations on tools for screening and assessment and roadmap for implementation

European Guide on models of care for frailty recommendations for primary care, community care, social care and hospitals and roadmap for implementation
NHS LANARKSHIRE
Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative (ADVANTAGE)
Expected on: 01/01/2020
European Guide on models of care for frailty recommendations for primary care, community care, social care and hospitals and roadmap for implementation

Report on the content, scope and gaps on frailty and frailty prevention in the curricula of the participant MSs health related workforce
MUG
Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative (ADVANTAGE)
Expected on: 01/09/2018
Report on the content, scope and gaps on frailty and frailty prevention in the curricula of the participant MSs health related workforce

Report on a framework to design programmes which identify training and research gaps on frailty.
MUG
Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative (ADVANTAGE)
advanced age in Europe: the ADVANTAGE initiative (ADVANTAGE)
Expected on: 01/09/2018
Report on a framework to design programmes which identify training and research gaps on frailty. It will be part of the Frailty Prevention Approach document (FPA)

Final report on screening of frailty
UCSC
Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative (ADVANTAGE)
Expected on: 01/11/2019
Final report (including the roadmaps and recommendations) on screening, diagnostic tools for frailty and relationship between chronic disease and frailty

Report on management of frailty at individual level: Prevention, Clinical management, Nutrition, Physical exercise, Drugs, ICTs
NIJZ
Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative (ADVANTAGE)
Published on: 18/05/2018
Report on management of frailty at individual level (frailty prevalence, methodology of data collection, short literature review, best practices, survey results on state of the art)

Evaluation Plan
INRCA
Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative (ADVANTAGE)
Published on: 28/03/2018
Evaluation Plan

JA Frailty definition
SERMAS-HUG
Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative (ADVANTAGE)
Published on: 28/03/2018
Report including definition on frailty (that will be used for the JA) and based on
the outcomes from the work of WPs 4 and 5.

Report on frailty at a population level including a specific section on primary health care
HSE-NUIG
Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative (ADVANTAGE)
Published on: 28/03/2018
Report on the current status of identifying “knowing” frailty (prevalence, screening, surveillance & monitoring and trajectories) at a population level including a specific section on primary health care

Report on the current status of models of care
NHS LANARKSHIRE
Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative (ADVANTAGE)
Published on: 28/03/2018
Report on the current status of models of care

Website; Leaflet; Facebook page
ARS
Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative (ADVANTAGE)
Published on: 14/11/2017
A Website a leaflet and a Facebook page to promote the project will be produced at the beginning and updated regularly

Risk management and contingency plan
SERMAS-HUG
Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative (ADVANTAGE)
Published on: 16/05/2017
Identification of critical risk events/processes which could have an adverse impact on the action, likelihood of occurrence, impact and consequences and measures to avoid / minimize such risks.

Press Releases
Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative (ADVANTAGE)

Published on: 07/04/2017

Press releases will be launched periodically. M1,6,12,18,24,30,36