PROMOTING HEALTHY AGEING through a

FRAILTY PREVENTION APPROACH

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Investing in Healthy Ageing means creating a future that gives older people the freedom to live lives that previous generations could never have imagined.

Frailty is an identifiable decline in physiological systems that results in decreased reserves, confers extreme vulnerability to stressors and increases the risk of adverse health outcomes such as disability, institutionalization, hospitalization and death.

There is evidence that preventing frailty can avoid many of the major negative health-related outcomes associated with ageing, contributing to healthy ageing.

World Report on Ageing and Health, WHO 2015.

Frailty is without question one of the most serious global public health challenges we will face this coming century.

Dent E et al. Lancet, 2019; 394: 1376–86

ABBREVIATIONS

AFE: Age Friendly Environments
BMI: Body Mass Index
CD: Chronic Diseases
CFS: Clinical Frailty Scale
CHS: Cardiovascular Health Study
CGA: Comprehensive Geriatric Assessment
COPD: Chronic Obstructive Pulmonary Disease
EC: European Commission
EFI: Electronic Frailty Index
EFS: Edmonton Frail Scale
EU: European Union
EIPAHA: European Innovation Partnership on Active and Healthy Ageing
FPA: Frailty Prevention Approach
FRAIL: Fatigue, Resistance, Ambulation, Illness, Loss of Weight
GP: General Practitioner
ICTs: Information and Communication Technologies
JA: Joint Action
MNA: Mini Nutritional Assessment
MS: Member State
SHARE: Survey of Health, Ageing and Retirement in Europe
SOF: Study of Osteoporotic Fractures
SoAR: State of the Art Report on frailty
SPPB: Short Physical Performance Battery
UN: United Nations.
WHO: World Health Organization
WP: Work Package

FOREWORD

The challenge of an ageing population motivated the European Commission (EC) and many of the Member States (MSs) of the European Union (EU) to co-fund the first Joint Action (JA) on the management of frailty: "A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative". It was funded under the 2015 call of the Third European Health Programme of the EU 2014-2020.

A JA is a grant for actions co-financed with MS or other countries participating in the Programme and the EC, to allow nominated authorities to take forward work on jointly identified issues that have a clear added value for the EU under the Health Programme.

The ADVANTAGE JA has brought together 34 partners, governments and non-governmental institutions (mainly academia), from 22 MS for three years (2017-2019). It aimed to build a common understanding on frailty to be used in the MS as a basis for a common approach to manage older people who have, or are at risk of developing, frailty to promote a disability-free advanced age in Europe, enhancing healthy ageing.

This document stems from nearly three years of work by the ADVANTAGE JA Consortium. It includes main conclusions and clear recommendations for Promoting Healthy Ageing through a Frailty Prevention Approach (FPA) across Europe. These recommendations are based on systematic reviews and analysis of the existing knowledge base, consensus building, and surveys of the MSs within the Consortium. Other experts and external advisers commented on draft documents and participated in discussions at different points during the process. This has brought new insights to the debate and enriched our understanding of the different stakeholder perspectives including policy, political, management, professional and academic views. The FPA should be the core guidance for policy decision makers, technical advisors, managers, health and care professionals, academics, and all stakeholders involved in the development of national or regional frameworks to address ageing.

The FPA is not just a guideline. It incorporates the commitment of the participating MSs to take actions aligned with these recommendations during the next four years. These Road Maps of actions, based on the present situation of the MSs and the resources at their disposal, show in a practical way how the prevention and management of frailty can be enhanced in different socio-economic and cultural contexts.

We would like to thank all the partners of the Consortium, very specially to the work-package leaders and coleaders, and to the Expert Panel and the Advisory Board Members for their strong support throughout these years. Special mention and acknowledgment to Inés García-Sánchez, deputy coordinator of this project during the first two years. Without the motivation of all of them, their involvement, efforts and hard work this document would not have been possible.

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Madrid, November 2019.

EXECUTIVE SUMMARY

Ageing is one of the biggest challenges that Europe is currently facing (WHO 2015). Demographic trends suggest that there will be an increase in age-related disability and dependence, which will ultimately impact not only on the wellbeing of the individuals affected, but also on the sustainability of health and social care systems (Murray and Lopez 2013). Nevertheless, recent data suggests that disability and dependency trajectories can be changed providing the opportunity for older adults to live longer healthy lives (Christensen et al. 2013).

For most older people, the maintenance of functional ability is of the highest importance. Healthy ageing is defined by the World Health Organization (WHO 2015) as the process of developing and maintaining the functional ability that enables well-being in older age. Therefore, identification of conditions preceding the development of disability and dependency is an essential prerequisite to effectively promote healthy ageing. Among the most important of conditions that contribute to functional impairment is frailty (Gill et al. 2011). Frailty is an identifiable decline in physiological systems that results in decreased reserves, confers extreme vulnerability to stressors and increases the risk of a range of adverse health outcomes such as disability, institutionalization, hospitalization and death (WHO, 2015). There is evidence that prevention and early management of frailty can avoid many of the major negative health-related outcomes associated with ageing including functional decline and dependency (WHO, 2015). Nevertheless, although addressing frailty is a necessary step to enhance healthy ageing, frailty is not currently considered as a public health priority in many European Countries.

Concern over this situation motivated the European Commission (EC) and many of the Member States (MS) to co-fund the first Joint Action (JA) on the prevention of frailty: ADVANTAGE JA. This document, entitled Promoting Healthy Ageing through a Frailty Prevention Approach (FPA), is the synthesis of the ADVANTAGE JA Consortium consensus on the optimal approach to prevent and manage frailty at national/regional levels across Europe. The FPA document has been informed by the main sources described below.

A) The State of the Art Report on Frailty (SoAR)

The first step was preparation of The State of the Art Report on Frailty (SoAR) document, which provides an overview of evidence on what works and what does not work in relation to the prevention and management of frailty. The SoAR reported the ADVANTAGE JA systematic reviews of the literature in different aspects of frailty, as well as a scan of EU-funded research projects, good practices and grey literature documents from participating MSs. The results of the SoAR were presented as answers to 11 key questions (see Technical Report. Annex 1). It was released in December 2017 and updated during 2019.

B) MS Baseline Situation Report on the Prevention and Management of Frailty

Partners collected information about the approaches (strategies, policies, programmes, actions, unmet needs) related to frailty in the participating MSs and their regions using a specific survey targeting key informants. The collection and analysis of information took place between September 2017 and May 2018 and is included in Section 2.3 entitled *Frailty in the EU and participant MSs*.

C) Consensus Meeting December 2018

Consortium MSs, stakeholders and External Advisory Board partners discussed the draft FPA document in December 2018.

D) Roadmaps for action at MS level

Considering their baseline situation and circumstances and using the SoAR as the gold standard, each MS was asked to develop a Roadmap of actions for the next four years to enhance the promotion of healthy ageing and address frailty. A summary of these roadmaps is included in Section 2.3 (*Road Maps for Actions towards a FPA*) and more extensively in annex 3. Two Consortium meetings identified common actions and activities to be incorporated as recommendations to all MSs.

E) A common framework for policy action

During 2019 the Consortium concluded their work to conceptualise and build the rationale for a common European framework for a frailty prevention and management approach.

The FPA provides guidance on how to strengthen national/regional capacities and accelerate national/regional efforts to set up or further develop a frailty prevention policy in any MS to enhance healthy ageing. It is a practical tool to combat the inequities that currently exist in Europe not only between countries but also within them. The FPA offers guidance on approaches to:

- Identify national/regional areas of action on frailty and position these within the MS health priorities.
- Set national/ regional objectives and deliverables for the specific areas of action.
- Implement proven interventions to reduce risk factors for frailty.
- Implement proven interventions to manage frailty at public health level.
- Implement proven interventions to train the workforce.
- Measure progress and results, considering proposed indicators.
- Advance action beyond the health sector through multi-sector co-operation.
- Promote international collaboration and cooperation across regions within participant MS to transfer and scale-up best practices.

The FPA document is a reference document for any region, country or MS facing challenges of ageing and frailty.

1. WHY FRAILTY MATTERS

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1.1. Consequences of the demographic trends in the EU

The successes of the past century in improving health and well-being have increased the life expectancy of populations around the world. Consequently, all societies are ageing: an increasingly large proportion of the population is older (WHO, 2015). Another trend, mainly in high income settings, has significantly contributed to an increased life expectancy: increasing survival in older age. As a result, not only populations are ageing, older populations are getting older faster than ever before. In fact, according to the 2015 European Union Ageing Report, the demographic profile of the European population is projected to change dramatically over the coming decades: the percentage of citizens over 65 is predicted to rise from 18% to 28% by 2060; the percentage of over-80s will increase from 5% to 12% during the same period (European-Commission n.d.).

In addition to the proportion of older people in any specific population, the absolute number of older people also matters. The anticipated consequences of population ageing are a dramatic increase in age-related disability and dependency (Murray and Lopez 2013), and a negative impact on quality of life, morbidity and mortality, which will go hand in hand with rising long-term health and care costs, and costs associated with unpaid caregiving.

In this context and given the increasing number of studies providing evidence for successful interventions to reduce disability in older people, the prevention of disability should become a public health priority. In addition to the benefits for individuals and care providers, there is increasing evidence that healthy ageing brings increased productivity and economic wellbeing to the population at large (Prohaska, Anderson, and Binstock 2012).

1.2. What elderly people want: Healthy ageing

In contrast to the traditional conceptualization of health in older age, defined by the absence of disease, the World Report on Ageing and Health (WHO 2015) considers health as a fundamental and holistic attribute that enables older people to achieve those things that are important to them.

What people want differs among individuals and changes over the life course. Having a role, an identity, relationships, the possibility of enjoyment, autonomy (being independent and able to make own decisions), security and the potential for personal growth are some of the things that older people identify as important for them (WHO, 2015).

The Scottish Older People's Assembly (SOPA) identified four themes that older people said are important (Hendry et al. 2017):

- "I want to have fun and enjoy myself"
- "I wish to remain connected to my friends"
- "I wish to be able to contribute to society for as long as I want"
- "Don't talk about me without me, and respect my beliefs and values"

The main attribute that enables people to be and to do what they want is their functional ability (WHO, 2015), the result of the complex interaction between:

- the intrinsic capacity of the individual, that is the composite of all the physical and mental capacities of an individual.
- relevant environmental characteristics, that comprise all the factors in the extrinsic world that form the context of an individual's life, e.g. the built environment, people and their relationships, attitudes and values, health and social policies, the systems that support them, and the services that they implement.

Figure 1: Functional ability is the result of the complex interaction between the intrinsic capacity of the individual and the environment characteristics where she/he live*

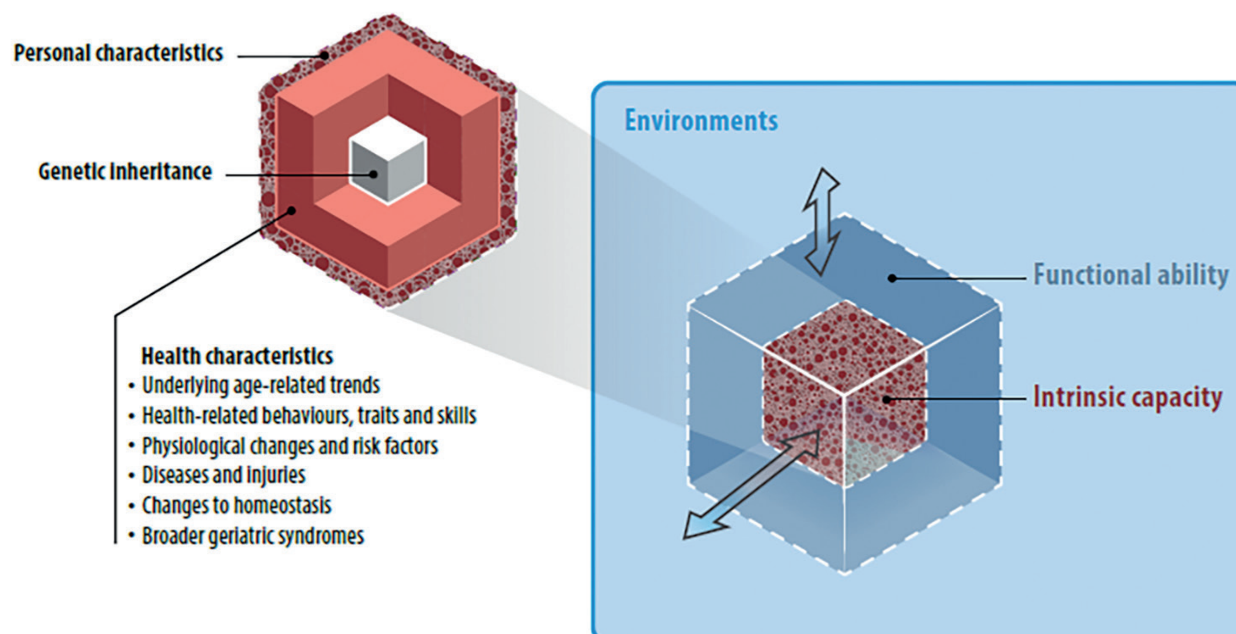

Figure extracted from WHO *World report on ageing and health (WHO, 2015)*

Three points emerge as key elements for healthy ageing:

- The interaction between the intrinsic capacity and the environment during all the life course explains most of the huge heterogeneity in the trajectories of functional ability and intrinsic capacity. How we age is not by chance, it is a consequence of how we live and where we live (WHO, 2015). Therefore, a comprehensive public-health response to population ageing must address health equity across the life stages and the contribution of socio-economic needs in building and maintaining intrinsic capacity.

- The responsibility of improving the health and wellbeing of older people goes beyond health and social care services. We all have a role to play: families, neighbours and communities; providers of services like housing, transport, leisure, community safety, education and arts; and, shops, banks and other commercial enterprises. Therefore, effective multisectoral approaches are recommended.

- Some of the most important barriers to effective public health policies on ageing are based on stereotypes, misconceptions or assumptions about older people. These attitudes can result in discrimination against individuals or groups based on their age, contributing to older adults being left behind. Thus, the central need to raise awareness in all stakeholders, including older people, about ageist stereotypes and preconceptions

1.3. A Joint Action towards a frailty free EU

The main goal of any public health approach to address the ageing population challenge is to foster functional ability to enhance intrinsic capacity and both physical and mental wellbeing. One of the most

important factors to achieve this is the prevention and management of frailty (Gill et al. 2011). Frailty is an identifiable decline in physiological systems that confers extreme vulnerability to stressors and increases the risk of adverse health outcomes such as disability, institutionalization, hospitalization and death (WHO, 2015). Frailty is a potentially modifiable condition that can regress to a robust (non-frail) state, especially in its early stages (Gill et al. 2006). The identification of frailty is pivotal for implementing preventive interventions against age-related disability and dependency (Cesari, Nobili, and Vitale 2016)

Accordingly, scientific societies, ministries of health, the EC (EC, 2014) and the World Health Organization (WHO) have proposed several and complementary strategies and actions to create awareness about the need to reshape support and care for older people and to build consensus across all sectors of society regarding both the philosophy of care and how this will be delivered and sustained in the most cost-efficient way. For example,

- In 2015 all United Nations member states adopted the "2030 Agenda for Sustainable Development", pledging that no one will be left behind and that every human being will have the opportunity to fulfil their potential in dignity and equality.

- The "WHO Global Strategy and Action Plan on Ageing and Health" adopted in 2016 provides a policy framework to ensure that the global response to population ageing is aligned with the UN's ambitious development agenda.

- The Decade of Action for Healthy Ageing (2020-2030) in which WHO is advocating for a multisectoral approach, moving from a disease focus to the perspective of functional ability that enables older people to live according to their values and priorities.

- The European Innovation Partnership on Active and Healthy Ageing (EIPAHA), launched in 2012 as a response by the EC to meet Europe´s demographic challenges, recognized that addressing frailty contributes to a Triple Win for Europe by:

    – Improving the health and quality of life of older people by reducing disability.

    – Supporting the long-term sustainability and efficiency of health and social care systems.

    – Enhancing the competitiveness of EU industry through business and expansion in new markets.

  Tackling frailty and disability and promoting integrated care are among the EIPAHA priorities. Action Groups on those topics have contributed significantly to policy debate, shaped new models for screening, treatment and monitoring and shared good practices (European Commission, 2012; EIPAHA, 2012-2018).

- In the 2015 Ageing Report, the EC and the Economic Policy Committee stated that coping with the challenge posed by an ageing population will require determined policy action in Europe, particularly in reforming pension, health care and long-term care systems.

Despite these ambitious initiatives, frailty is not yet sufficiently prominent within the public health agenda. There is an urgent need to make frailty prevention and management a public health priority and to reorganize health and social care services to address the increasing demands for social and health care arising from the burden of frailty and disability in older age (Cesari et al, 2016; Rodriguez-Artalejo et al, 2014).

2. ACTIONS TO PREVENT AND MANAGE FRAILTY AND PROMOTE HEALTHY AGEING IN EUROPE

2. ACTIONS TO PREVENT AND MANAGE FRAILTY AND PROMOTE HEALTHY AGEING IN EUROPE

2.1. General Principles

The FPA Framework establishes the vision, values and rationale around which effective policy on frailty to enhance healthy ageing should be built. They are consistent with the recommendations of the WHO, the EU and the UN.

VISION

ADVANTAGE JA vision is an EU where older people live well and remain independent for longer.

VALUES

Equality: all members of the human family (including older persons) have equal right to access to qualified health services able to respond to their needs and preferences.

Dignity and respect for older people: Value older persons and combat ageism to counteract misconceptions, negative attitudes and assumptions which are serious barriers to developing good public policy on ageing and health.

Empower civil society to help in defending the rights of older persons, bringing their needs to the forefront in decision-making processes and empowering them to have more control over their lives. They should be the main actors of this process.

Inclusion, as an attitude and approach that embraces diversity and acknowledges special needs of all older persons.

LINES TO TACKLE FRAILTY

Pursue a "health in all" policies approach.

Frailty actions should enhance synergies with other existing programmes, for example, healthy ageing, chronic diseases, dementia, palliative care and falls and bone health. Creating a separate "vertical approach" around frailty should be avoided.

All actions to prevent and manage frailty, both at individual and population level, must be evidence based. Because of the information gaps, developing a monitoring and learning system to track progress, make any necessary adjustments, assess the effectiveness of the approach, and to learn lessons for the future, is advisable.

Frailty interventions must be tailored to MSs needs and circumstances.

RATIONALE PILLARS

ADVANTAGE JA has identified several key messages, grounded in sound scientific knowledge. These provide rationale to drive policy decisions on frailty prevention and management.

1. Frailty is very common. Literature shows an overall frailty prevalence of about 18% in the total population over 65 years old (12% in community-dwellers and 45% in institutionalized) in the EU.
2. Frailty is not an inevitable consequence of ageing. It is a potentially reversible condition that may also revert spontaneously to a robust (non-frail) state, especially in its early stages or as a result of intervention on modifiable factors.
3. Early stages of frailty are the most appropriate target for intervention because they are more likely to reverse to a non-frail (robust) state.
4. Screening for frailty has shown to be effective. There are validated tools to screen for frailty in the EU.

5. Diagnosis of frailty has shown to be effective. There are validated tools to diagnose frailty in the EU.
6. Frailty interventions are designed following a three-step structure: 1) Screening of frailty. 2) Diagnosis of frailty. 3) Management of frailty.
7. Management of frailty is effective and cost-effective to foster longer and healthier lives. Comprehensive Geriatric Assessment, a multidimensional assessment that includes medical, physical, cognitive, social and spiritual components, is the gold standard tool for the management of frailty using interventions tailored to the needs of the individual.
8. Individualized interventions such as exercise, adequate nutrition, management of chronic diseases focused on functional ability, avoiding inappropriate drugs and polypharmacy and its consequences, promoting independence and preventing adverse events are effective in preventing and managing frailty. Multidimensional interventions are more effective than monodimensional interventions.
9. Integrated health and social care are the most effective model to manage frailty. There is some evidence of cost-effectiveness and positive outcomes from a coordinated and interdisciplinary approach across primary care, social care, community, intermediate care and hospital settings.
10. Trained workforce is key not just in the prevention and management of frailty but also in the planning and development of services, policies and research evidence.

2.2. A common framework for policy action.

Participants in Consortium meetings in December 2018 and April and May 2019 agreed that the FPA must first acknowledge the core elements required for successful healthy ageing, (see section 1.2). These core elements are complemented by the technical report from the literature review (see annex 1) about frailty to build a comprehensive evidence-based frailty prevention approach.

The FPA has been set out as ten domains:

DOMAIN 1: Raising awareness, engaging stakeholders and empowering older people.

DOMAIN 2: Commitment to action on frailty.

DOMAIN 3: Promotion of healthy ageing and frailty prevention.

DOMAIN 4: Early diagnosis of frailty.

DOMAIN 5: Appropriate clinical management of frailty.

DOMAIN 6: Establish and continually improve an integrated model of care to completely address frailty.

DOMAIN 7: Education and training.

DOMAIN 8: Research.

DOMAIN 9: Implementation support (finance and information and communication technologies (ICTs))

DOMAIN 10: Monitor quality and evaluate cost-effectiveness.

Each domain includes a brief rationale, recommended actions, possible indicators and is illustrated by a case study example. Addressees for the actions and recommendations will be different depending on the specific activities but also on the national/regional circumstances: older people; national, regional and local authorities; European authorities; service providers and professional bodies; NGOs, caregivers and volunteers; academics and other stakeholders.

DOMAIN 1- Raising awareness, engaging stakeholders and empowering older people

Rationale

Any comprehensive public health action will require fundamental shifts in beliefs about ageing and health. Greater awareness and understanding about healthy ageing and frailty is needed across all levels of society to develop a common vision focused on healthy ageing. This will help to better understand the benefits of an ageing society and avoid negatives stereotypes and age discrimination (ageism), a powerful barrier to the development of good policy and practice.

Empowerment of older people is necessary to ensure they achieve what they want: healthy ageing. This requires involvement and collaboration across multiple sectors and with diverse stakeholders, including older people, in order to achieve a shared vision and a clear, overarching objective. This collaboration will facilitate coordinated comprehensive action by policy makers, managers and advisors; health and social care professionals (public and private) and professionals from education, transportation, sports and culture; researchers; patients, informal caregivers and volunteers; and civil society.

Recommended activities

1. Awareness campaign to increase knowledge about ageing, ageism and frailty, using WHO concepts of healthy ageing and frailty.
2. Involvement of key stakeholders from relevant sectors evolving towards an intersectoral working group on healthy ageing and frailty that includes older people and caregivers.

Possible indicators of progress

- At least one mass media healthy ageing and frailty awareness campaign.
- Legislation and enforcement strategies against age-based discrimination.
- At least one intersectoral working group, forum or committee on ageing and health that addresses frailty, as set out in the WHO definition.

CASE STUDY: The Face Up to Frailty campaign

Background: A new understanding of ageing by all levels of society is needed. Nevertheless, the survey conducted by ADVANTAGE JA during 2018, showed that in more than half of the MSs, the main stakeholders (policy makers/managers, health and social sectors) do not view frailty as a priority nor apply a clear definition.

Challenges:

- Empower older people to lead the needed change towards a healthy ageing population.
- Help all people to understand what they can do to address healthy ageing and frailty.
- Raise awareness on the relevance and imperative of taking action on this issue in the civil society at large but more specifically in policy makers, health and social care professionals, patients, informal caregivers and volunteers, and researchers.

The case: The Face-up to Frailty Campaign (#faceuptofrailty) was created by ADVANTAGE JA and launched at European level during the ADVANTAGE JA Madrid Forum on December 13th 2018. It aims to raise awareness and concern about frailty and to engage people from Europe to take action!

The #faceuptofrailty campaign target audience is policy and decision makers, professionals of the health and social sectors, and citizens.

Links: www.advantageja.eu
#faceuptofrailty

Results: 13 Members states of ADVANTAGE JA (Austria, Croatia, Cyprus, Greece, Finland, Hungary, Italy, Malta, Netherlands, Portugal, Romania, Spain and UK) have developed the following Face up to frailty activities:

- Pictures, videos and stories for the campaign with an impact around 7000 visitors.
- Merchandise for the campaign to be distributed at the ADVANTAGE JA events.
- Discussions with stakeholders about the campaign.

Conclusions: The Face up to frailty campaign has boosted awareness about frailty and its consequences, contributing to a better understanding of healthy ageing. This campaign could be adapted to any European country or region.

DOMAIN 2: Commitment to action on frailty

Rationale

Identification of frailty as a public health priority is essential to promote better ageing of the population. Nevertheless, policies addressing frailty are often non-existent and existing ones are focused on an outdated and ageist vision.

To make change, it is desirable that all stakeholders are committing to action on frailty. There is no single way to do it. In each country or region, strong leadership is needed to create policies on frailty but also to reshape those that already exist with the vision of healthy ageing and action on frailty. To be more effective, leaders need to commit resources based on the best available evidence and be aware of existing regional and international frameworks on ageing and health so that efforts at different levels can be coordinated.

Leaders should be people with vision and passion for the mission, high energy and ready to assume responsibility and take on the hard work of making the shift. They are able to foster multisectoral collaboration between government and non-government actors, including older people, service providers and academics, and take effective action through national frameworks and policies addressing frailty and healthy ageing.

Recommended activities:

1. Development of a National/Regional Strategy on Healthy Ageing that includes action on frailty (WHO concept, 2015)

2. Alignment of other strategies or plans (e.g. chronic diseases, dementia…) with the vision of healthy ageing and action on frailty (WHO concept, 2015)

3. Creation of a department of Healthy Ageing or a program for Older People that addresses frailty.

Possible Indicators of progress

- A focal point on ageing and health within the Ministry of Health

- An operational policy, strategy, plan or framework for ageing and health that includes action on frailty (WHO, 2015 definition)

Case Study 1: Romania develops a strategic plan for frailty

Background: The survey developed by ADVANTAGE JA during 2018 showed that frailty is

considered a priority in Romania but is still poorly represented in policies and strategic documents.

Challenges:

- Raising awareness of what frailty is and how addressing it could modulate ageing contributing to a healthier population.
- Working with stakeholders, from different sectors, to discuss and agree upon a common working strategy and implement it through a suitable political framework, alongside the necessary financial resources.
- Enhancing the development of services to address the older person's needs.
- Inclusion of frailty and related problems in the national programmes and the national state reimbursement system for health care services.

The case: Romania developed a "Strategic Plan for Frailty" for 2020-2023, led by the three Romanian ADVANTAGE partners (National School of Public Health Management and Professional Development Bucharest, Babes-Bolyai University and National Centre for Mental Health and Antidrug Fight) with the strong support of a multisectoral working group (consisting of relevant stakeholders such as health professionals, health authorities, professional associations and stakeholders from health related sectors - associations of elderly, universities, ICT institutions, NGOs) and validated by the Ministry of Health.

The key factors ensuring success in the Romanian context were the following:

- A very good collaboration and coordination between the three Romanian partners coming from different but complementary fields (medical, social, education) relevant for tackling frailty;
- Early and high level of involvement of stakeholders who participated in open discussions regarding all aspects of the roadmap; and effective integration of the received feedback.
- Public institutions were kept closely informed during the process and their feedback informed the draft versions;
- High degree of interest showed by the Ministry of Health, as well as other health and social authorities in supporting European projects;
- Excellent collaboration with all ADVANTAGE JA consortium;

Links:

http://publichealth.ro/index.php/advantage/

https://anmcs.gov.ro/web/intalnire-nationala-cu-privire-la-actiunea-comuna-advantage-ja-bucuresti/

https://anmcs.gov.ro/web/advantage-join-action-frailty-prevention-approach-abordarea-fragilitatii-virstnicului-eu-health-programme-madrid-din-13-decembrie-2018/

Conclusions: This case study shows how the three core stakeholders adopted the vision of healthy ageing, assumed the role of spreading their vision, involving more stakeholders and setting up a collaborative multisectoral working group. Support from a collaborative framework at European level, in this regard the ADVANTAGE JA Consortium, represented the ideal context to enhance the development of the "Romanian Strategic Plan for Frailty 2020-2023".

Case Study 2: Greece develops a strategic plan for frailty

Background: The survey developed by ADVANTAGE JA during 2018 showed that frailty was not considered a priority in Greece and was not represented in policies and actions.

Challenges:

- Raising awareness of what frailty is and how actions could modulate ageing. In the short term, the main audience has been policymakers.

- Make frailty a public health priority: inclusion of frailty and related problems in national programmes.

- Working with policy makers from different sectors, to discuss and agree upon a common working strategy and implement this through a suitable political framework, alongside the necessary financial resources.

The case: Greece has developed an Action Plan entitled "Public Policies on Frailty". To develop this plan a working group was created by the School of Public Administration with several sectors within government (Health Ministry, Ministry of Education and Religion and Ministry of Work, Social Security and Solidarity). The working group operated under the umbrella of the JA ADVANTAGE.

This plan has adopted many of the ADVANTAGE recommendations, ensuring it is based on the best scientific evidence. The Action Plan has been structured under six pillars to address frailty within a comprehensive way. The main focus is on national policy change by aligning policy makers with the WHO concepts of healthy ageing and actions on frailty. The other pillars of the Action Plan are awareness and empowerment of older people, prevention and management of frailty, teaching and research.

The key factors ensuring success of the plan were:
- Commitment of the Ministry of Health
- Collaboration between government entities and the Greek partners of the JA

Conclusions: Although this action plan was developed mainly by policy makers and academic partners, it addresses frailty in a comprehensive way and offers a framework for involving all stakeholders.

DOMAIN 3: Promotion of healthy ageing and frailty prevention

Rationale

Evidence indicates that life course approaches to health promotion and prevention of disability are critical to improving survival and health as people age. Prevention strategies have been shown to be effective also in older people. It is necessary to prevent or delay progression of chronic and disabling diseases and syndromes such as frailty, cognitive impairment and falls in all older people, minimizing multimorbidity, disability and dependency. Given the increased life expectancy in later life and heterogeneity of health needs in older adults, preventive interventions in later life should be appropriately targeted. The focus should be on building functional ability and maintaining this for as long as possible to prevent frailty and subsequent disability.

Also required are community and home-based approaches that target alcohol and tobacco consumption; ensure an adequate diet and physical activity; create new opportunities for social engagement and productivity; and develop housing, equipment, services, support and adaptations to enable autonomy and ageing in place.

Recommended activities

1. Implementation of population-based approaches to promote healthy ageing and preventing frailty, focused mainly in the reduction of alcohol and tobacco consumption, uptake of physical activity, adequate nutrition and control of chronic diseases.

2. Implementation of population-based approaches to promote Age Friendly Cities and Communities (AFC)

3. Development of guidelines to promote healthy ageing through a frailty prevention approach.

4. Development of a national plan to promote healthy ageing through a frailty prevention approach.

Possible indicators of progress

- National/regional programs to promote healthy ageing and prevent frailty in older people, focused mainly in physical exercise and nutrition.
- A program to support activities in line with *WHO Global Network for Age-Friendly Cities and Communities*.
- *National* guidelines to promote healthy ageing through prevention of frailty.
- *National* strategy or action plan to promote healthy ageing through a frailty prevention approach.

Case Study. France: For ageing well, "Pour bien vieillir", a prevention and health promotion community program

Background: Frailty constitutes a health and social care challenge for France. The frailty approach is a strategic element of the law "adaptation of the society to ageing" (Law n° 2015-1776 from 12/28/2015). The French government prepares a new law "Great Age & Autonomy" and a new strategy to prevent frailty and promote healthy ageing.

Challenges:

- Initiatives to prevent frailty and its consequences should be accessible to all older people and targeted to their heterogeneity.
- Prevention of frailty should be addressed not just within the health system but mainly in the community.
- Take action is difficult because evidence in this field, at national level, is limited.

The case: France developed three major national programs to prevent frailty and its consequences covering all older people across different settings. They are:

- Preventing the iatrogenic dependency related to hospitalisation and reducing avoidable hospitalizations

- Community-based programs to prevent autonomy loss with the local funding conferences

- "Pour bien vieillir" (for ageing well) – community prevention and health promotion

"Pour bien vieillir" (for ageing well) was launched in 2011 by the pensions' funds with the support of the national public health agency "Santé publique France". It was designed to support frail (but not dependent) people, to inform them on how to prevent frailty by adopting healthy lifestyles and to deliver interventions designed for health and social workforces in contact with older people. Main topics covered are physical activity, balance and nutrition, cognitive activity, sleep, social network, isolation, housing and fall prevention. Main activities are:

a) Information and counselling for community-dwelling people aged 55 and older (website and leaflets, conferences) and professionals (social, health)

b) Collective workshops for personalized advice

Links:
https://www.pourbienvieillir.fr/; (www.pourbienvieillir.fr/espace-professionnels)
https://www.has-sante.fr/jcms/c_2801190/fr/prevenir-la-dependance-iatrogene-liee-a-l-hospitalisation-chez-les-personnes-agees

Conclusions:

France is strongly reinforcing prevention of frailty since midlife with a focus at the age of retirement through healthy behaviours, especially physical activity, and in a holistic approach to foster healthy ageing.

DOMAIN 4: Early diagnosis of frailty

Rationale

To enhance healthy ageing and prevent disability, one critical step is to identify the population group at the highest risk that could benefit most from an intervention. These are individuals who have, or are at risk of, frailty. Because early stages of frailty are more likely to reverse to a robust state, early diagnosis of frailty seems highly recommendable. Although research evidence regarding how best to identify frailty is not firm, several existing consensuses recommend doing it.

Primary care has been identified as the preferred healthcare context to identify physical health problems and risks, screen and monitor for frailty and coordinate the specific components of frailty interventions (both for prevention and treatment).

ADVANTAGE JA proposes a two-step diagnosis process.

1. Opportunistic screening for frailty is recommended in all people more than 70 years of age, receiving health care at any level of the system. Clinical Frailty Scale (CFS); Edmonton Frail Scale (EFS); Fatigue, Resistance, Ambulation Illness, Loss of Weight Index (FRAIL Index); Inter-Frail; Prisma-7; Sherbrooke Postal Questionnaire; Short Physical Performance Battery (SPPB); Gait Speed or Study of Osteoporotic Fractures (SOF) Index are the scales recommended by ADVANTAGE. In addition, there are other tools, as the SUNFRAIL tool (D 6.2: Sunfrail Tools for the Identification of Frailty and Multimorbidity, available at www.sunfrail.eu), developed under the umbrella of European projects that are in the process of validation.

2. To confirm the diagnosis of frailty, these three tools are recommended: Frailty Index based on the cumulative deficit model of frailty (FI), the Frailty Phenotype of the Cardiovascular Health Study (CHS) or the Frailty Trait scale (FTS).

Recommended activities

1. Development of opportunistic screening initiatives for early detection of frailty.

2. Inclusion of frailty assessment within a national/regional health survey or study.

3. Adoption of risk stratification strategies based on a sound epidemiological picture of frailty

4. Development of frailty observatories or registries.

Possible indicators of progress

- National guidelines to manage frailty that includes early detection recommendations aligned with this FPA
- At least one national longitudinal study, health survey or surveillance method that allows monitoring of frailty prevalence and its trajectories.

Case Study. Spain: The Consensus Document on frailty and falls.

Background: Frailty is a priority for the Spanish Ministry of Health, Consumer Affairs and Social Welfare (in Spanish Ministerio de Sanidad, Consumo y Bienestar Social -MSCBS). Nevertheless, planning and management of the health system, including primary care (PC) has been devolved to the 17 Spanish regions since 2002. The MSCBS maintains a coordination and monitoring role.

Challenges

- Lack of knowledge on frailty among professionals of the health and social care sector, managers and authorities.
- There is a variety of screening and diagnostic tools for frailty.
- Care of older people is centred on disease instead of functional ability and quality of life.

The case: The MSCBS led a Working Group on Frailty (WGF) that aimed to include frailty management in the public health agenda. The group of regional ministries of health, professional societies and experts developed the "Consensus document on frailty and falls prevention among the elderly as part of the Prevention and Health Promotion Strategy of the Spanish National Health Service (NHS)" in 2014 (Ministerio de Sanidad, Servicios Sociales e Igualdad, 2014). A key recommendation is the early detection of frailty among those over 70 years old, opportunistically among those attending primary health care centres for any reason and actively on those integrated in specific programmes already established, i.e. programmes devoted to chronic patients or the older people. In both cases, early detection is followed by a multidimensional intervention. The recommended screening tool is the Short Physical Performance Battery (SPPB). Gait speed, Timed Up & Go (TUG), FRAIL Index and Sherbrooke Postal Questionnaire (SHARE-FI) are accepted as alternatives. Risk of falls is also assessed through a set of agreed questions.

Currently, other related activities are ongoing:

- a training plan for health professionals in primary care on the prevention, detection and management of frailty and falls
- the inclusion of the diagnosis of frailty in primary care electronical medical records.
- a planned evaluation of the implementation of this consensus across all Regions.
- funding from the Ministry of Science, Innovation and Universities for a three-year Multicentre Randomized Controlled Trial to analyse the efficacy of interventions based on this protocol to reduce frailty in older adults (FRAILMERIT study, PI19/00962).

Links:

https://www.mscbs.gob.es/en/profesionales/saludPublica/prevPromocion/Estrategia/docs/Frailtyandfalls_Elderly.pdf https://www.mscbs.gob.es/en/profesionales/saludPublica/prevPromocion/Estrategia/docs/ExecutiveSummary.pdf

Conclusions:

This case exemplifies the first step that any country or region should perform to develop opportunistic screening initiatives for early detection of frailty: the elaboration of a national guideline on screening for frailty in the context of Primary Care, based on evidence and agreed by policy makers and professionals.

DOMAIN 5: Appropriate management of frailty

Rationale

After diagnosis, the next step is effective and cost-effective management of frailty to foster longer and healthier lives. The gold standard evidence-based management is Comprehensive Geriatric Assessment (CGA) followed by an individualised care and support plan which addresses current and anticipated needs and care preferences. CGA, a multidimensional assessment that includes medical, physical, cognitive, social and spiritual components, is essential to tailor the most appropriate interventions for the older persons.

Although further investigation is required to ascertain effectiveness of interventions, some have been found to be superior to usual care and have been included by recent consensus-based guidelines as first-line therapies for the management of frailty. These are physical activity, adequate protein intake and deprescription of inappropriate medications. Tailoring the correct management of concomitant diseases focused on functional ability, promotion of independence and prevention of adverse events has also proven to be useful. Falls prevention, nutrition recommendations and optimal immunization are recommendable interventions for any old person.

Multidimensional interventions are more effective than monodimensional ones. Tailored interventions should be part of the individualized care and sup-port plan. The care plan should be shared with all who have a role in the delivery of care, including patients, caregivers and/or family.

Recommended activities

1. Use of CGA, adapted to each setting, as gold standard to manage older people with frailty followed by an individualised care plan.

2. Development of national or regional guidelines to manage frailty in a comprehensive way.

3. Development of guidelines to address specific interventions to manage frailty – such as appropriate polypharmacy, physical activity, nutrition programs, falls prevention and immunization.

Possible indicators of progress

- National policy in place to support CGA followed by an individualised care plan as the main tool to assess and manage frail older people.
- National guidelines to manage frailty that includes early detection and effective clinical management, with special emphasis on physical activity, nutrition, falls prevention, appropriate polypharmacy and immunization.

Case Study. Belgium: A National Care Programme for the management of hospital patients with a geriatric profile.

Background: Belgium has a system where the federal authorities set minimum standards and regulate hospitals. The federated entities, three regions (Flemish region, Walloon region, Brussels-Capital Region) and three communities (Flemish community, French community and German speaking community) are responsible for Primary Care, health promotion and prevention, special services and community care.

Challenges:

- Lack of awareness of frailty among health and social professionals.
- Lack of evidence-based knowledge

The case: there is a legal framework which specifies the norms to which hospitals caring for older patients must adhere (Law of geriatric programme of 29/1/2007, amended by law of 26/3/2014). In hospitals, all people ≥ 75 must be screened for a geriatric profile and frailty is one of the criteria within the assessment. Professionals can decide which instruments are used but screening tools must be based on a scientifically validated instrument. If a positive screening occurs, a Comprehensive Geriatric Assessment must take place in order to plan evidence-based tailored interventions through a multidisciplinary consultation that involves different disciplines (geriatrician, nurse and physiotherapist/psychologist/ speech therapist/ dietician/ occupational therapist). The assessment results and diagnoses must be logged in the patient file and communicated to primary care.

Links:

http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=nl&la=N&cn=2007012955&table_name=wet

http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&cn=2007012955&table_name=loi

Conclusions: How frail older people are managed in hospital can change their future. This case study is an example of ensuring frail older people in hospital access evidence-based management to enhance quality of care through systematic screening + assessment + evidence-based interventions by a multidisciplinary team.

DOMAIN 6: Establish and continually improve an integrated model of care to completely address frailty.

Rationale

Health systems need to transform to deliver sustainable access to evidence based integrated services that ensure continuity and coordination of care across all health and social care providers and are focused on maintaining independence. This integrated model of care should be able to address the needs of all older people despite their diverse needs and circumstances. Effective models of care for frailty prevention and management should incorporate the following key components: a single-entry point in the community, generally in Primary Care; Use of simple frailty specific screening tools; comprehensive assessment and individualised care plans that address modifiable physical, psychological, cognitive and social factors; tailored interventions by an interdisciplinary team, both in hospitals and community, appropriate to the goals and circumstances of the individual and their caregiver; case management and coordination of support across the continuum of providers; effective management of transitions between care teams and settings; shared electronic information tools and technology enabled care solutions and clear policies and procedures for service eligibility and care processes (Hendry et al. 2018).

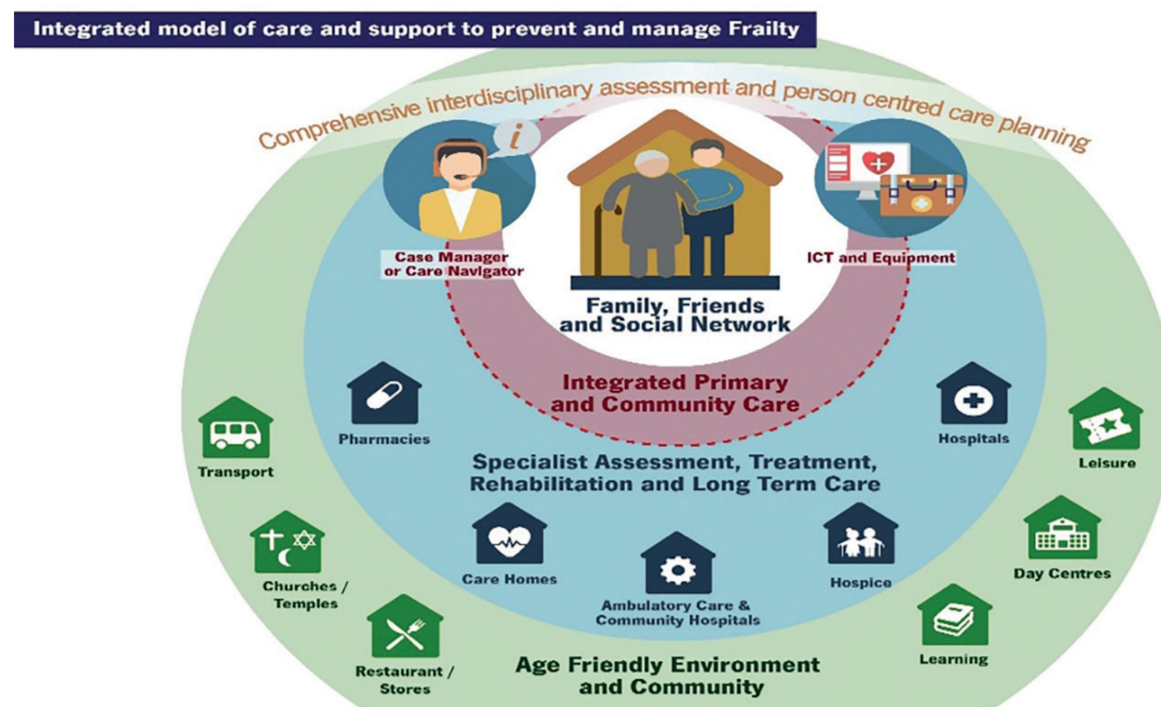

Figure 2. Integrated model of care and support to prevent and manage frailty. Source: ADVANTAGE JA

Recommended activities

1. Development of national/regional recommendations to improve the model of integrated care for older people as described in the FPA.
2. National / regional programme to ensure effective intermediate care and management of care transitions between teams and settings.

3. Assessment and improvement of health and social services for older people, scaling-up programmes with positive results and piloting new programmes based on the FPA recommendations.

Possible indicators to progress

- National/Regional programme to improve the model of care for older people in line with the FPA.
- National framework / policy / guidance on intermediate care and management of care transitions

Case Study: Finland, a comprehensive integrated model of care

Background; the Constitution of Finland stipulates that society must guarantee adequate social, health and medical services for everyone and promote the health of the population. Focused on adding more healthy years to lives, the Ministry of Social Affairs and Health (MSAH) emphasises the principles of prevention, maintenance of functional ability, independent living at home and active participation in society.

Challenges

- High-quality, equitable, coordinated and cost-effective services for older people.
- Evidence for policy-makers and leaders to develop and evaluate these services

The case

Legislation requires cooperation between health and social care, as well as between primary and specialized medical care. In addition, social services and health care are being developed largely as a single entity, and health and social care have common strategies for elderly care. Although decision making and resources are devolved to regions and municipalities, the main factors ensuring the success in Finland are:

- MSAH and the Association of Finnish Local and Regional Authorities have published quality recommendations for older people, first in 2001 and updated in 2008, 2013 and 2017.
- National legislation (National Elderly Care Act 980/2012)
- National programmes focused on functional ability. Some programs were developed to the next goals:
- To promote physical activity among people in later life.
- For earlier intervention and multiprofessional staffing, especially rehabilitation.
- To improve home care for older persons and enhance informal care in all age groups.
- Good practices in some regions and municipalities to be spread in all regions are:
- A one-stop-shop approach to service guidance, allocation and client and service coordination.
- Primary care is integrated with formal and informal care networks, social supports and housing in all municipalities.
- Hospital programmes - CGA delivered by geriatric polyclinics, geriatric wards and in hip fracture rehabilitation pathways.
- Regional rehabilitation and Intermediate care services that include a case/care manager or care coordinator, discharge team and liaison nurses and may include hospital at home, or home rehabilitation.

Links:

http://www.finlex.fi/en/laki/kaannokset/2012/en20120980_20120980.pdf
https://stm.fi/en/older-people-services

Quality recommendation to guarantee a good quality of life and improved services for older persons 2017–2019: http://urn.fi/URN:ISBN:978-952-00-3906-6

https://stm.fi/koti-ja-omaishAoito/materiaalit

Conclusions: Finland is continually improving its care system, ensuring integration, continuity of care and quality management as priorities to enhance functional ability and wellbeing in older people.

DOMAIN 7: Education and training

Rationale

One of the main challenges of the demographic change is the need for a workforce (not just health and social care professionals but also other professionals, informal caregivers and volunteers) prepared to meet the needs of an increasing number of people with frailty. An integrated care system focused on health promotion, prevention and early detection needs to have a workforce with the right knowledge and skills to manage the care of older people.

However, health and care professionals are often not appropriately trained to deliver the holistic, anticipatory and functionally oriented care and support that older people require. Frailty prevention and management is also neglected in many academic programs. To address this gap, health and social care professionals need to be trained in three broad areas of competencies: geriatrics, interprofessional practice and inter-organizational collaboration (Sunfrail, 2018). ADVANTAGE JA has developed a commonly agreed multi-professional capability framework (see Annex 2)

Recommended activities

1. Include FPA recommendations about core capabilities in undergraduate, postgraduate and continuing professional development curricula across health and social care disciplines.

Possible indicators of progress

- FPA recommendations about core capabilities are included within the undergraduate curricula across health and social care disciplines.
- FPA recommendations about core capabilities are included within the postgraduate curricula across health and social care disciplines.
- FPA recommendations about core capabilities are included within the continuous training of Health and social care disciplines

Case Study: Ireland, the National Frailty Education Programme

Background: In Ireland, frailty is part of the geriatric training curricula for undergraduate medical students in all university teaching hospitals. A national postgraduate education programme delivered as part of "The National Clinical Programme for Older People" (NCPOP) covers frailty concepts. Geriatrics has a strong tradition in Ireland and is a well-established medical specialty, representing the largest division in internal medicine in the country.

Challenges

- Professionals from all sectors including those with health and social care backgrounds, informal caregivers and volunteers need to be trained in frailty in order to be prepared to meet the needs of older people.

The case: The "National Frailty Education Programme", is a one-day frailty education programme open to all healthcare professionals, which is run by the Irish Longitudinal Study on Ageing (TILDA) in conjunction with the NCPOP coordinated by the Health Assessment Centre in Trinity College. The aims of the programme are to provide healthcare professionals with an enhanced understanding of frailty and frailty assessments, ensuring earlier recognition of frailty, improved healthcare management and better health outcomes for frail older adults and to create a cadre of "Frailty Facilitators". Moreover, the course incorporates key research findings from TILDA, provides an overview of theoretical models underpinning frailty and include training in key frailty assessment tools.

As a follow on from this programme these "Frailty Champions" (facilitators) aligned with the NCPOP, provide education on the "Fundamentals of Frailty" to other front-line health care professionals and staff delivered in their local Community Health Organisations and Hospital Groups to advocate for and improve care delivered to frail older people around the country.

The programme has been awarded Category 1 approval by the Nursing & Midwifery Board of Ireland (NMBI). CPD credits for Health and Social Care Professionals awarded based on hours of learning as per their governing organisation. To date, over 300 frailty facilitators have completed the facilitators' development programme and over 2,000 healthcare professionals have received training on frailty. An e-learning programme is planned.

Links:

https://www.ijic.org/articles/abstract/10.5334/ijic.3659/

https://tilda.tcd.ie/ppi/frailty-education/

Conclusions: "The National Frailty Education Programme" is regarded a good practice example as it views workforce development from an interdisciplinary and dynamic perspective in order to reach educational transparency. This approach corresponds with the proposal model of educational transparency developed within the "Report on the content, scope and gaps on frailty and frailty prevention in the curricula of the participant Member States' health related workforce" of the ADVANTAGE JA (see: http://advantageja.eu/images/Deliverable_8%201_SC%20approved.pdf).

DOMAIN 8: Research

Rationale

Health and care policy makers, funders and providers need high-quality evidence to inform decisions and comparable data to plan, design and finance interventions and models of care to meet the changing needs of the population. Further research is needed to increase our understanding of the nature of frailty. Frailty research should encompass basic research; epidemiological studies on prevalence, incidence and frailty trajectories; validation of screening and diagnostic procedures in different settings of care; clinical trials on specific interventions on frailty; clinical and health service research evaluations on approaches to incorporating the identification of frailty and modification of treatment for other medical and surgical conditions; trials about usefulness of information and communication technologies (ICTs) in the detection and management of frailty; combinations of community and social care interventions and intermediate care services between hospital and community; and training of the workforce.

But research does not depend just on researchers. A favored environment is needed that facilitates collaborative work by national and international researchers and also cooperation and interchange with professionals and people involved in caring for older people, including older people themselves. Availability of research funding is essential and, to obtain this, increased awareness of the research gaps on frailty by the funding entities is warranted. At this point, co-funding with industry and private companies could be an option.

Recommended activities

1. Facilitate the creation of multidisciplinary research networks.
2. Promote cooperation with international research groups.
3. Ensure research calls on frailty cover follow up of national cohorts, testing of interventions to avoid and manage frailty, and creation of biobanks to study biomarkers of frailty.
4. Promote changes in the Regulatory Agency rules both at EU and national level to adapt procedures to the needs and characteristics of frail older people, particularly in terms of validation of drugs, devices and procedures in this population.

5. Strengthen coherence between the different ministries with Ministry of Health investments and other partners like industry to ensure funds to research calls on healthy ageing and frailty.

Possible indicators to progress

- At least one multidisciplinary research network focused on healthy ageing and frailty.
- At least one national / regional research call every five years covering healthy ageing and frailty.

Case Study: Italy, towards a concerted national research framework on aging and frailty

Background: Italy has shown a sustainable or advanced level of development of activities related to the prevention and management frailty (see table 2). Although many research projects on various aspects of aging have been developed, no national research strategy on this topic is currently available.

Challenges

- High number of knowledge gaps about frailty need to be solved
- Funding for projects on ageing and frailty is scarce

The case: The Italian scientific community is highly committed to aging research at local, national and international levels. The development of multidisciplinary and international research networks on ageing and frailty has allowed Italy to increase opportunities for funding with excellent outcomes in the following main studies:

- ILSA (Italian Longitudinal Study on Aging; 1992-ongoing) https://www.maelstrom-research.org/mica/individual-study/ilsa. Among age-related conditions and functional changes investigated in the ILSA cohort (n=5632, age 65-84), special attention has been paid to frailty and its association with cognitive decline. Further analysis to fill the knowledge gaps in the epidemiology of frailty identified through the JA ADVANTAGE are currently ongoing.)

- InCHIANTI (1998-ongoing) at regional level http://inchiantistudy.net/wp/

- SPRINT-T project http://www.mysprintt.eu/en

- SUNFRAIL project http://www.sunfrail.eu/detection-of-frailty/). Funded by the EU Health Programme 2014-2020, its main objective was to develop and test a model, good practices and tools to improve the identification, prevention and care of frailty and management of multimorbidity in community dwelling persons (over 65) in Europe.

- CONSENSO project https://www.alpine-space.eu/projects/consenso/en/home

- “Silver Code, Innovative models of care for frail elderly patients in the transition from hospital to community and from community to hospital”

- The Federico II University Hospital (Campania Region) is applying the Italian version of the IFi and a comprehensive geriatric assessment for the detection of frailty and the estimation of its severity.

- Italy has also participated in many other projects as EFFICHRONIC, FOD-CC, FRAILCLINIC, FRAILOMIC, FRAILTOOLs, MIDFRAIL and MPI_AGE among others.

Conclusions:

In its roadmap (see Annex 3), Italy has manifested its intention of supporting, aligning and expanding policies and strategies on frailty and aging. This will require the development of an integrated and comprehensive program, including health, social, research and innovation policies, allowing joint and coherent planning and allocation of resources. An explicit commitment to the creation and growth of multidisciplinary and extended research networks, based also on previous well-established programs and valuable research experiences, has been made.

DOMAIN 9: Implementation support (finance and information and communication technologies (ICTs))

Rationale

To ensure the promotion of healthy ageing through the FPA, financial investment is mandatory to support implementation of specific commitments.

ICTs may constitute a great transversal support to enable implementation of this framework. A wide range of technological solutions have been developed to prevent and manage frailty, enabling older people to remain independent at home, supporting caregivers, facilitating remote monitoring and self-management, providing decision support, and improving information sharing and coordination of services to assure continuity of care. Technology solutions may help the training of the workforce.

Recommended activities

1. Allocation of economic resources to enhance the implementation of the national/regional strategy on frailty prevention.
2. Development of shared electronic information to enable integrated care.
3. Use ICT solutions to prevent or managing frailty.
4. Use ICT solutions to facilitate continuous education of health and social professionals.

Possible indicators of progress

- Shared electronic information system or tools to enable care solutions for frailty.
- At least one evaluated program that uses ICT solutions to address frailty.
- At least one program of continuous education supported by ICTs.
- Availability of government funds to improve prevention and management of frailty.

Case Study; The PERSILAA project, a multicountry experience on personalized ICT support.

Background, ICTs may be an important support to prevent and managing frailty across the whole spectrum of functional abilities. Nevertheless, overcome some barriers is needed to enhance its implementation in real life.

Challenges

- Development of ICTs focused on older people
- Stereotypes of ageing
- Lack of good quality evidence

The case: The PERsonalised ICT Supported Service for Independent Living and Active Ageing (PERSSILAA) project was funded under the 2013–2016 European Union Framework Programme 7. The Netherlands, Ireland, Italy, Spain and Portugal took part in this project. PERSSILAA developed a comprehensive Information and Communication Technologies (ICT)-supported platform to screen, assess, intervene and then monitor community-dwellers in order to prevent the onset of frailty by promoting active and healthy ageing. The project targeted three important pre-frailty subdomains: nutrition, cognition and physical function.

This service consists of both community-based and online support offered via website. People can be screened for frailty by completing a set of questionnaires on paper or via a website. If the screening questions prompt it, older adults will then be asked to complete some clinical tests in their neighbourhood, perhaps in the local church or community centre). When training is needed, this can be provided via the website or at a location in their community.

Links:

https://perssilaa.com/

Conclusions: The PERSSILAA pathway is a screening process for the primary prevention of frailty that can be used in primary care and municipalities to identify community-dwelling older adults at risk of becoming frail and to target those who will benefit most from programmes to strengthen their abilities and minimize risk of developing frailty. This screening process provides municipalities with objective information to better allocate their resources and could potentially support the monitoring and surveillance of frailty at national or transnational level.

DOMAIN 10: Monitor quality and evaluate cost-effectiveness

Rationale

Currently the range of quality metrics used in the field of ageing is limited. Improved measurement of care quality and outcomes is essential to better understand progress in implementing policies and programmes that will deliver the Frailty Prevention Approach. The use of improvement indicators and performance targets should be balanced by measures of the experience of care. Agreement on ways to measure, analyse, describe and monitor policies and programmes on healthy ageing and frailty from the outset is essential to track progress over time. Indicators also allow comparison and benchmarking of efforts and results between different MSs.

Activities

1. Inclusion of performance indicators on frailty within health targets.
2. Use of quality indicators by those who deliver care for older people to drive improved health and wellbeing outcomes.
3. Assessment and continuous improvement of health and social services for older people.

Indicators to progress

- Frailty is included within health targets.
- A monitoring framework to evaluate the national/regional Strategy on Healthy Ageing and Frailty.

Case Study: Scotland- reshaping the model of care for older people is cost effective.

Background: The UK is one of the most developed MSs with a comprehensive response to frailty in all four regions. The health and care systems for older people span the continuum of care from prevention, primary and community care, rehabilitation and enablement, intermediate care services, CGA in hospitals, long term care support and palliative and end of life care. The regional experience in Scotland is used to illustrate how the UK is implementing new models of care to improve health and wellbeing outcomes for people and deliver cost effective care closer to home.

Challenges

- To ensure policy changes are adopted and scaled up
- To track progress and evidence if changes achieve expected outcomes
- To plan to sustain the benefits

The case: *Reshaping Care for Older People: A Programme for Change 2011 – 2021* introduced an ambitious shift towards preventative, anticipatory and coordinated care and support closer to home. A Change Fund (£75million per annum for 4 years), representing around 1% of the healthcare and social care budget for older people, was used to enable services to test new models of care and support. A cross-sector improvement team and implementation network supported local health and care systems to test new approaches, spread good practice, tackle variation and track progress on a core set of

improvement measures. The sentinel measures were age related rates of days spent in institutional care (following emergency admission to hospital or in long term institutional care). These indicators have continued to be tracked beyond the conclusion of the Change Fund in March 2015. Some of the achieved outcomes were:

- 39% of the Change Fund was invested in support for carers
- 17% reduction in people conveyed to hospital after a fall
- 83% of older people receiving support at home benefit from telecare.
- Bed days in hospital for people aged 75+ following an emergency admission reduced by 10% from 2009/10 to 2015/16.
- Each day in 2016/17, people aged 65+ used around 1533 fewer emergency hospital beds than 'expected' had the 2008/09 rate at continued in line with population ageing
- In 2017, around 7,213 fewer older people in care homes than projected based on the 2009 rate and demographic trends.
- Estimated institutional costs avoided of £480 million in 2016/17 - around £1.3 million / day available to reinvest in community services for older people.

Links: *Healthcare Quarterly*, 19(2), pp73-79. DOI: 10.12927/hcq.2016.24703

Conclusions: The evidence informed whole system approach, a time limited innovation fund and cross sector support for implementation improved outcomes for people and for the system. Cost-effectiveness was demonstrated by tracking key indicators to evidence the shift. The Scotland experience is an excellent example of a comprehensive FPA approach and how to lever and support system change at a national level.

2.3. Developing Road Maps towards the FPA

Degree of frailty action development in participating MSs: Baseline Survey

During the first trimester of 2018, the Consortium conducted a survey to identify how MSs were tackling the prevention and management of frailty at national/ regional level. The survey addressed different areas of the SoAR through a set of questions developed by the coordinating team and WPs. To answer the survey, each MS selected a group of key informants including health strategic planners, health managers and professionals, and representatives of social services, research and education sectors. From an initial analysis of the survey responses and discussion with WP leaders and co-leaders, it was agreed that the MSs' responses should be classified using five very general levels:

Table 1. Levels of classification of member states.

Sustainable: There is an evaluated national strategy or there is an agreed plan to sustain it.
Advanced: There is a national strategy on that item.
Well-developed: Relevant interventions/programmes are being carried out in many parts of the MS.
Fair: Something is being done in some places of the MS.
Basic: Nothing is going on in the MS in relation to that item.

All WPs reached consensus on the specific criteria for the classification of their own survey topics and applied the criteria to the survey results, clarifying with the respondents if needed. In the next table, classification of MSs by topic areas is shown, namely:

- Definition of frailty
- Epidemiological picture of frailty
- Prevention
- Screening, surveillance and monitoring
- Diagnosis and clinical management
- Health and social systems organisation
- Training of professionals
- Research

Table 2 provides an overall picture of the degree of development of frailty prevention and management activities in each participating MS.

Table 2: A summary of the situation of member states in relation to all areas of frailty prevention and management.

	AT	BE	BG	CY	DE	EL	ES	FI	FR	HR	HU	IE	IT	LT	MT	NL	NO	PO	PT	RO	SI	UK
Definition of frailty																						
Epidemiological picture of frailty																						
Prevention																						
Individual screening																						
Population screening																						
Surveillance and monitoring																						
Diagnostic tools																						
Clinical management																						
Nutrition																						
Physical exercise																						
Drugs																						
Information & communication technologies (ICTs)																						
Holistic social care, support and enablement																						
Continuity and coordination in primary care																						
Comprehensive assessment in hospitals																						
Intermediate care and management of transitions																						
Training of professionals on undergraduate level																						
Training of professionals on postgraduate level																						
Training of professionals for continuous education																						
Research																						

AT: Austria. BE: Belgium. BG: Bulgaria. CY: Cyprus. DE: Germany. EL: Greece. ES: Spain. FI: Finland. FR: France. HR: Croatia. HU: Hungary. IE: Ireland. IT: Italy. LT: Lithuania. MT: Malta. NL: Netherlands. NO: Norway. PO: Poland. PT: Portugal. RO: Romania. SI: Slovenia. UK: United Kingdom.

	Sustainable		Advanced		Well-developed		Fair		Basic

The survey suggests wide variation across Europe in the levels of development of the different frailty-related areas considered. Of concern is that many MSs are classified as 'basic' in terms of definition of frailty; epidemiological studies; clinical management; population screening, monitoring and surveillance; and research. Even more worrying, some MSs from Eastern Europe are classified as 'basic' or 'fair' in all areas. On the contrary, other MSs like Finland, France, Ireland, Italy, Spain and the UK, have a high level of development in many areas. This confirms that achieving a high level of development is feasible. Most MSs show a mixed picture, combining 'basic' with 'well-developed' and even 'advanced' levels of development. There is room for improvement for all MSs: none achieved a 'sustainable' level in prevention; diagnosis and interventions; health and social care systems; undergraduate training and information and communication technologies.

There were some caveats to the process: The criteria to classify the MSs was established post-hoc, so some questions in the survey were not specific enough to allow a more accurate classification. There seems to be a wide variation in the level of detail reported by respondents. The insight and awareness of different areas may have been influenced by the area of expertise and sector perspective of the respondents. While some guidelines, strategies and programmes may be national, they are generally implemented at a regional level, particularly when healthcare is devolved to regional administrations e.g. Finland, France, Italy, Spain and UK. Thus, the real level of development in different parts of the MSs may be lower than the one reported here.

Road Maps for Actions towards a FPA

It was clear from the survey that MS have already begun to implement health policies that address demographic change and healthy ageing. But this has generally been done in an ad hoc and heterogeneous way, achieving different results. Examples range from the development of whole system models of integrated care for older people to localised programmes that focus on some of the many components of frailty.

In contrast, the SoAR reported effective and feasible interventions in all topics that may constitute the goal towards which all MSs should aim. They all could strive to achieve a more homogeneous progress by intensifying actions on the less well matured areas. It was considered that this could be supported through the development of roadmaps for action for the next four years. Each MS was invited to consider the ten domains of the FPA and consider the potential facilitators and barriers for implementing frailty prevention policies and actions. The development of the MS Road Map was done during the first semester of 2019 and reflects their specific needs, priorities and circumstances and their baseline at the time of the survey.

The number of MSs that are adopting actions for each domain is presented in Table 3. Annex 3 contains the Road Maps developed by each MS.

Table 3: Number of Member States adopting actions in their Road Maps towards a FPA

DOMAINS		Countries which report activities for 2020-2023
DOMAIN 1: Raising awareness, engaging stakeholders and empowering older people		**20**
Awareness campaign to increase knowledge about ageing, ageism and frailty, using WHO concepts of healthy ageing and frailty.		**17**
Involvement of key stakeholders from relevant sectors evolving towards an intersectoral working group on healthy ageing and frailty that includes older people and caregivers		**17**
DOMAIN 2: Commitment to action on frailty		**13**
Development of a National/Regional Strategy on Healthy Ageing that includes frailty (WHO concept, 2015)		**9**
Alignment of other strategies or plans (p.eg chronic diseases, dementia…) with the vision of healthy ageing and frailty (WHO concept, 2015)		**10**
Creation of a department of Healthy Ageing or a Health program for Older People that addresses frailty.		**6**
DOMAIN 3: Promotion of healthy ageing and frailty prevention		**21**
Implementation of population-based approaches to promote healthy ageing and preventing frailty, focused mainly in exercise and nutrition.		**16**
Implementation of population-based approaches to promote Age Friendly Cities (AFC)		**7**
Development of guidelines to promote healthy ageing through frailty prevention.		**10**
Development of a national plan to promote healthy ageing through a frailty prevention approach.		**5**
DOMAIN 4: Early diagnosis of frailty		**18**
Development of systematic and periodical early detection of frailty		**16**
Inclusion of frailty within a national/regional health survey (or study).		**11**
Adoption of risk stratification strategies based on a sound epidemiological picture of frailty		**7**
Development of frailty observatories (or registries).		**6**
DOMAIN 5: Appropriate management of frailty		**18**
Use of CGA as main tool to assess frail older people in all settings followed by an individualised care plan		**12**
Development of guidelines to address specific management aspects of frailty	Polypharmacy	**14**
	physical activity	**10**
	nutrition programs	**10**
	Falls	**13**
	Immunization	**10**
Development of national or regional guidelines to manage frailty in a comprehensive way.		**10**

DOMAINS	Countries which report activities for 2020-2023
DOMAIN 6: Establish and continually improve an integrated model of care to completely address frailty.	**20**
Development of National/Regional recommendations to improve the model of care for older people aligned with the FPA.	8
Assessment and improvement of health and social services for older people, scaling-up that programs with positive results and piloting new programs for frail patients based on the FPA recommendations.	19
DOMAIN 7: Education and training	**20**
Include FPA recommendations about core capabilities in undergraduate, postgraduate and continuum curricula across health and social disciplines.	20
DOMAIN 8: Research	**16**
Facilitate the creation of multidisciplinary research networks.	13
Promote cooperation with international research groups.	8
Ensure research calls on frailty covering national cohorts follow-up, efficiency testing of interventions to avoid and managing frailty and creation of biobanks to study biomarkers of frailty.	7
DOMAIN 9: Implementation support (finance and information and communication technologies (ICTs))	**14**
Development of shared electronic information to reinforce integrated care.	
Use ICT solutions to prevent or managing frailty.	
Use ICT solutions to facilitate continuous education to health and social professionals.	9
Allocation of economic resources to enhance the implementation of the national/regional strategy on frailty prevention.	4
Strengthen coherence between the different ministries with Ministry of Health (MoH) investments and other partners like industry to ensure funds to research calls on healthy ageing and frailty.	8
DOMAIN 10: Monitor quality and evaluating cost-effectiveness	**13**
Inclusion of frailty on the health targets	7
Use of indicators to support those responsible for delivering strategies to improve Health and wellbeing of older people.	12

3. CONCLUSIONS

3. CONCLUSIONS

For the first time, the EU has a common tool, the FPA, to address one of the main factors related to disability - frailty. The FPA is a shared strategy and reference document for any region, country or MS, facing challenges of ageing and frailty. It has been designed through a rational three step process in which each step has produced a useful output.

The first step was the search for the best evidence on what works and what does not work in the prevention and management of frailty. It produced the SoAR on frailty, which can be considered the most comprehensive and up-to-date review on the topic, to be consulted by any policy maker or professional interested in the subject.

The second step was to understand if the knowledge and interventions described in the SoAR were already evident in MSs. This phase produced the first-ever survey to capture detailed information regarding the current level of action on frailty in European MSs. The analysis of its results allowed MSs to self-assess their level of development in all areas of the prevention and management of frailty and consider how policies, plans, programmes and activities by other MSs could be adapted to their own context.

In a third step, the comparison between the ideal scenario depicted in the SoAR with the reality in the survey allowed members of the ADVANTAGE consortium to engage with their respective governments and advocate for a Road Map to address frailty. Again, for the first time, this produced a harmonised catalogue of short and mid-term interventions to address frailty over the next four years. They have been compiled in the third product(s) of the ADVANTAGE JA —the MSs' roadmaps—, organized as ten domains to achieve healthy ageing and consistent with the recommendations of the WHO, the EU and the UN.

All of these outstanding outputs have been produced by a consortium that is, itself, one of the main achievements of the ADVANTAGE JA. Collaboration between representatives of governments of almost all EU MSs, in partnership with the EC, and with the valuable help of external bodies, has allowed a fruitful knowledge exchange on specific policies, guidelines and implementation experiences. This has developed strong multisectoral networks, both within and between MSs. These relationships, if maintained over time, will be essential for the next important step: the provision of implementation support and assessment of MSs' progress on their commitments to promote healthy ageing through a FPA.

4. SUPPORTING DOCUMENTS

4. SUPPORTING DOCUMENTS

www.advantageja.eu contents all documents within the Advantage JA supporting this document.

5. REFERENCES

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ANNEX 1. Technical Report

What is frailty?

The concept of frailty is a recent one, dating from the last quarter of the 20th century. ADVANTAGE JA partners have agreed to adopt the 2015 WHO definition:

"Frailty is a progressive age-related decline in physiological systems that results in decreased reserves of intrinsic capacity, which confers extreme vulnerability to stressors and increases the risk of a range of adverse health outcomes."

Frailty is a potentially modifiable condition that can regress to a robust (non-frail) state, especially in its early stages (Gill, 2006). More advanced frailty states are less likely to be modifiable and most of the times a precise intervention(s) is required to avoid disability and dependency. Frailty is viewed as progressive and potentially reversible condition characterized by a continuum of changes in intrinsic capacity.

Multimorbidity, disability and frailty are often used interchangeably to identify vulnerable older adults (Kan et al, 2008) but they are not the same (Hanlon et al, 2018; Vetrano et al, 2018). All three occur frequently, sometimes coexist, and have important consequences (Fried et al, 2001). Multimorbidity is defined as the co-ocurrence of two or more chronic medical disorders in one person at the same time. It can lead to interactions between disorders; between one disorder and treatment recommendations for another; and between drugs prescribed for different disorders. As a result, the effect of multimorbidity on functioning, quality of life, and mortality risk might be much greater than the individual effects that might be expected from these disorders in isolation. Functional ability (measured by presence of frailty or disabilities) is more accurate risk factor of disability and mortality.

Disability is the umbrella term for impairments, activity limitations and participation restrictions, referring to the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors) (WHO, 2001). It impacts on quality of life, wellbeing, morbidity and other adverse outcomes. It has worse prognosis than frailty and few cases are reversible. Conversely, frailty is a reversible state whose early identification and management is central to avoid disability (Cesari, 2016)

How common is frailty?

The prevalence of frailty mainly depends on the setting where the study is carried out. On community cohort samples, prevalence ranges from 2% to 60% depending on the age of the evaluated population and the frailty assessment tool (Collard, 2012). The ADVANTAGE meta-analysis of European community-based studies confirmed an estimated prevalence of 12% (O`Caoimh et al, 2018a).

There are fewer studies from non-community settings. These studies indicate that frailty is more frequent in primary care and outpatient settings (more than 30%) and is identified in more than 50% of hospital inpatients and over 50% of residents in long-term care facilities. The pooled estimate prevalence from the ADVANTAGE meta-analysis is four times higher in non-community settings (45%) than in community dwellers (O`Caoimh et al, 2018a).

As frailty is highly associated with age, we should expect an increase in the number of new cases (incidence) of frailty as the European population gets older. Nevertheless, there is limited information on precisely how many cases we could expect in the ADVANTAGE JA MSs. Despite the dynamic nature of frailty, there is a remarkable paucity of longitudinal data about frailty development and progression over time (Galluzzo et al, 2018). The few incidence

studies retrieved through the ADVANTAGE JA systematic review show a considerable heterogeneity of findings due to significant differences in age, sample size and duration of follow-up (Galluzzo et al, 2018). In three of six European studies, the proportion of new cases of frailty ranges from 3.9% in adults aged over 65 years in Germany to 7.5% in adults aged over 60 years in Spain after three years of follow-up (Galluzzo et al, 2018).

What are the consequences of frailty?

Frailty can have an important impact on affected individuals, their families, the health and care systems and society.

- It is associated with a greater risk of adverse health outcomes, such as falls, hospitalization, disability and death. The predictive value for negative outcomes has been confirmed irrespective of the assessment instruments used, target populations, and settings.
- It impacts upon the clinical management of chronic diseases, and conditions requiring specialist treatments including surgery, cancer and renal replacement therapy.
- It identifies groups of people in need of extra social support and at higher risk of dependency.
- Some data suggest that frailty accounts for a significant part of both the increased health and care resource use and the avoidable costs attributed to chronic diseases and multimorbidity (Castro-Rodríguez, 2016; Rodríguez-Sánchez, 2017).

How can frailty be prevented?

It is important to encourage healthy behaviours, such as increasing physical activity and decreasing sedentary behaviour, reducing smoking and alcohol consumption, and improving diet to achieve and maintain a healthy weight in midlife to improve health and reduce the risk of frailty in later life (National Institute for Health and Care Excellence, 2015). Nevertheless, a comprehensive public health frailty FPA should include prevention strategies in older age (Fried, 2012) because prevention strategies are also effective at that age.

The Mediterranean diet *(*characterized by a high consumption of nutrient-dense foods such as fruits and vegetables, whole meal cereals and oily fish, but low intake of saturated fats) may prevent frailty (Goisser, 2016).

There are many observational studies showing that societal factors such as level of education (Mello et al, 2014; Young et al, 2016), income (Guessous et al, 2014; Mello et al, 2014) and marital status (Young et al, 2016) may shape the development of frailty. Frailty prevention calls for a multifaceted approach that includes addressing deleterious environmental factors, some of which, may act across the life course (Young et al, 2016).

How can frailty be screened?

Diagnosis process should be based on a two-step approach, consisting of the use of a short screening instrument to identify possible frail individuals followed by a more completed evaluation to confirm the diagnosis (Rodríguez-Laso et al., 2018). General practitioners have been identified as the preferred healthcare professional to screen for frailty (Lette et al, 2015). Nevertheless, this recommendation should be adapted and tailored to the different settings and populations.

ADVANTAGE JA supports the evidence-based recommendation of opportunistic screening of all persons older than 70 years receiving health care at any level of the system (Morley, 2013).

Many instruments have been proposed to screen for frailty. In the absence of a 'gold standard', the instrument to screen and diagnose frailty should be chosen according to the characteristics of the population being studied, the aims of the assessment and the context (Cesari, 2016). The ADVANTAGE JA proposes the use of screening tools fulfilling the following four characteristics:

- Quick to administer (taking no more than 10 minutes to complete).
- Do not require special equipment.
- Have been validated.
- Are meant for screening.

These characteristics were met by the following instruments:

The Clinical Frailty Scale (CFS); Edmonton Frail Scale (EFS); Fatigue, Resistance, Ambulation Illness, Loss of Weight Index (FRAIL Index); Inter-Frail; Prisma-7; Sherbrooke Postal Questionnaire; Short Physical Performance Battery (SPPB); Gait Speed or Study of Osteoporotic Fractures (SOF) Index (ADVANTAGE JA SoAR, 2017). In addition, there are other tools, as the SUNFRAIL tool (D 6.2: Sunfrail Tools for the Identification of Frailty and Multimorbidity, available at www.sunfrail.eu), developed under the umbrella of European projects that are in the process of validation.

In addition, the use of the electronic Frailty Indexes (eFI), applying the accumulation of deficits of theory of frailty, based on variables included in the patient´s electronic health records, represents a quick, simple and validated methodology to screen for frailty in primary care. Such a methodology has been tested in the UK, Australia and US (Ambagtsheer et al, 2019; Boyd et al, 2019; Pajewski et al, 2019; Stow et al, 2018).

Population screening for frailty would provide the opportunity to intervene at earlier stages when treatments are more likely to reverse or at least delay the progression of the condition. There are both ongoing and completed EU funded projects and initiatives showing the feasibility and acceptance of screening approaches for frailty in primary care or the community in ADVANTAGE JA MSs, although no evaluations of screening programs are available.

How can frailty be diagnosed?

As the purpose of diagnosing frailty is to prevent functional decline and disability, assessing frailty status is a controversial issue in patients with established disability (Rodriguez Mañas, 2017). Frailty status in older adults without disability should be determined using a validated scale. The ADVANTAGE JA proposes the following as frailty diagnostic instruments: a validated frailty index based on the cumulative deficit model of frailty (FI), the Frailty Phenotype of the Cardiovascular Health Study (CHS) or the Frailty Trait scale (FTS). FI and FTS allow tracking of the evolution of frailty.

How can frailty be managed?

The next step after the diagnosis process is the management of frailty. To properly manage frailty at an individual level a Comprehensive Geriatric Assessment (CGA) should be undertaken followed by an individualised care and support plan which addresses current and anticipated needs and care preferences, includes advice on physical activity, reducing risk of falls, adequate nutrition, reviews medication and considers the support needs of carers (see figure 1 and box 1). These components are briefly described below:

Comprehensive Geriatric Assessment (CGA)

CGA followed by an individualized care plan is the gold standard for the management of frailty (Morley 2013) and is an internationally established method to assess and manage older people in clinical practice across the globe. It can be adapted to different clinical settings such as primary care.

CGA is a process that includes a multi-dimensional holistic assessment of an older person's health and wellbeing and leads to the development of a care and support plan which is revised and re-assessed at appropriate intervals. It allows structuring of the specific actions that need to be adopted by different professionals (multidisciplinary team) according to the range of problems identified and the treatment goals established with the frail person and his/her caregiver or relative.

Exercise/physical activity

In order to reduce frailty, it is necessary to act on one of its main risk factors: inactivity. Interventions that have focused on physical activity have demonstrated its effectiveness in delaying and even reversing symptoms of both frailty and disability.

There is evidence for the positive effects of multicomponent exercise programmes on the functional ability and the overall health of frail people. The most frequently used program consists of endurance, flexibility, balance and cardiovascular resistance training performed with low to moderate intensity, in 30 to 45 minutes sessions, three times a week. Exercise seems to be more effective in earlier stages of frailty than later stages (Theou, 2011)

In addition, several clinical trials, show that frailty responded positively to structured exercise programs incorporating strength training, consisting of low to medium exercise loads (from 30% —low— to 60-70% —medium— of maximum intensity). The duration of the trials was extremely variable, from a minimum of eight weeks to a maximum of a year and a half, but even the shortest trial duration produced an increase in strength (Cadore, 2013; Pahor, 2014).

Physical exercise can also mitigate some of the consequences associated with frailty, especially the highly prevalent issues of falls by focusing on improving and maintaining balance, strength and mobility.

Evidence shows that physical exercise is more useful if combined with a nutritional programme (Theou, 2011).

Nutrition

There is sufficient evidence that nutrition and frailty are related and that following an adequate diet reduces the risk of becoming frail; thus, nutritional status should be assessed in frail patients using a validated tool such as the Mini Nutritional Assessment (MNA) followed by advice on an adequate nutrition plan.

Evidence suggests that BMI 25-29 offers the best outcomes for older people in terms of mortality and overall health. When weight loss is of benefit, BMI greater 30 Kg/m2 and age between 65 to 80 years, a moderate weight loss of 8-10% of body weight over 6 months always combined with exercise (strength training to maintain muscle mass) is advised. For over 80 years of age, or elders with a serious health condition, there is no conclusive evidence for the benefit of weight reduction, so only advice on healthy diet and, if possible, exercise to maintain muscle mass can be offered (Porter Starr et al, 2015).

Older adults with BMI <23 Kg/m2 are advised to adopt a diet of high energy and nutrient density and participate in exercise (strength) training in order to achieve a gradual increase in body mass, especially muscle mass (Porter Starr et al, 2015).

Older people with higher protein intake lose lean body mass slower, lose less when losing weight and increase muscle mass more if they increase weight (Houston et al, 2008). Protein intake of 1.5 g per kilogram of weight per day has the most beneficial effects in regard to preventing sarcopenia and frailty compared with protein intakes of 0.8 and 1.2 g per

kilogram of weight per day in prefrail or frail elderly subjects at risk of malnutrition (Park et al, 2018).

Frail older patients who are at high risk of falls or fracture and with a 25-OH vitamin D level < 30 ng/ml should receive doses of 20 to 25 µg/day (800 a 1000 IU/day) of vitamin D (Bruyère, 2017).

There is level I evidence that nutrition combined with a programme of exercise is more effective in the management of frailty (Theou, 2011).

Inappropriate polypharmacy

Polypharmacy is associated with frailty (Lorenzo-López et al. 2018; Veronese et al., 2017) and increased rates of mortality, disability, hospitalization, and emergency department visits in frail older adults. Furthermore, frailty increases the risk of side effects from drug treatments.

Polypharmacy (especially when more than 10 medicines are taken) should be monitored in these patient subgroups to optimize health outcomes (Bonaga et al., 2017).

Applying single disease guidelines often increases the treatment burden for older people and may increase risk of drug-drug and drug-disease interactions, poor adherence to treatment and increased risk of adverse drug reactions (Marengoni et al, 2014). Tools and strategies to reduce inappropriate drugs and polypharmacy should be used to decrease costs and medication side effects in frail populations (Morley et al., 2013). The most widely used tools include the Beers, STOPP-START and Laroche criteria (Kaufmann et al., 2014)

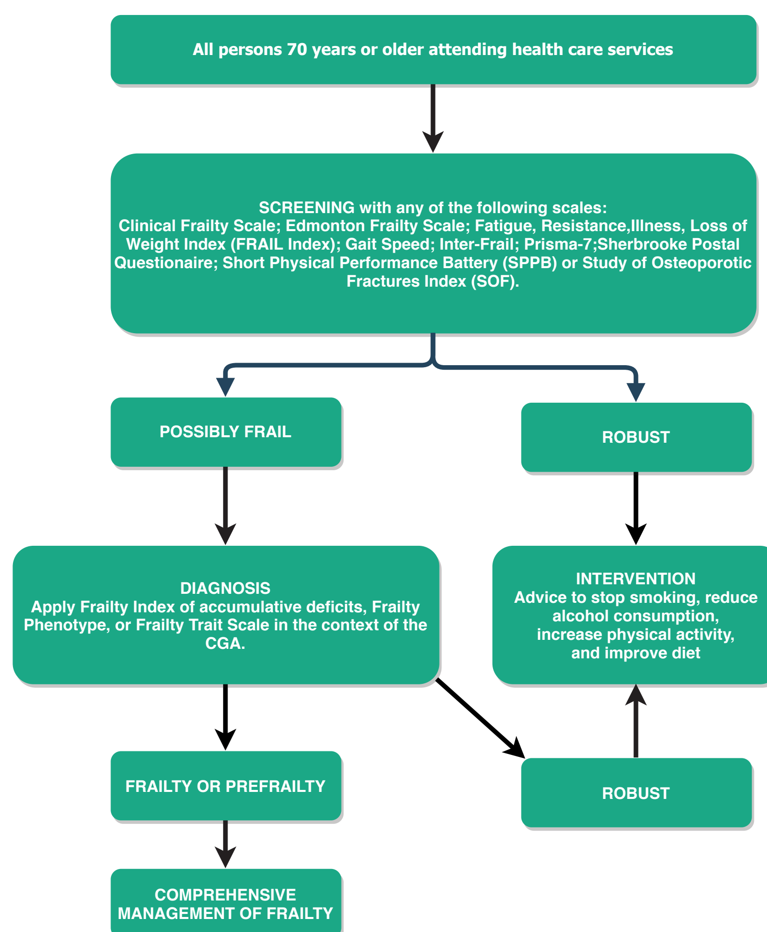
Immunization

Experts recommend vaccination for frail people. Vaccination recommendations differ across the EU, what is only partially explained by different epidemiological circumstances. Therefore, increased efforts to harmonize immunization uptake would be desirable (Weinberger, 2018). Frail patients should be referred regularly to their Primary Health Care Centre to update their vaccinations.

ICT

ICTs are of potential interest to support the challenges of frail older persons and can play an important role in enabling older people to remain independent at home, support caregivers, facilitate remote monitoring and self-management, provide decision support, and improve information sharing and coordination of services. In addition to the general benefits of ICTs, they may improve also quality of life, general wellbeing, promote social interaction and communication, physical activity and exercise, nutrition, and support other activities of daily life (Morley et al., 2013).

Figure 1: Algorithm for the management of frailty at individual level



Box 1: Comprehensive clinical management of frailty

Box 1: Comprehensive management of frailty

- Comprehensive Geriatric Assessment to develop a personalised care plan and carry out a personalized multi-dimensional intervention.
- Take into account the frailty stage to tailor the correct treatment of concomitant diseases.
- Provide structured multicomponent exercise programs (consisting of endurance, flexibility, balance, and resistance training) performed with low to moderate intensity, in 30 to 45-minute sessions, three times a week. Followed or substituted by exercise programs of strength training: minimum of 8 weeks and medium to high exercise load (from 8 to 12 repetitions, from 30% - 60-70% of maximum intensity).
- Assess malnutrition (Mini Nutritional Assessment) and optimize nutrition.
- Apply tools to minimise risk from inappropriate drugs and polypharmacy (Beers criteria, STOPP/START or Laroche criteria).
- When weight loss is of benefit, in BMI ≥30 kg/m2, and age 65 to 80 years, advise a moderate weight loss of 8-10% of body weight over 6 months always combined with exercise (resistive training to maintain muscle mass).
- Considerer Vitamin D supplementation for frail older patients who are at high risk of falls or fracture and with a 25-OH vitamin D level < 30 ng/ml with doses of 20 to 25 µg/day (800 a 1000 IU/day).
- ICT solutions should also be considered and advised to enable self-management and promote independence.

What components should health and care systems adopt to manage frailty?

Integrated care has emerged as an effective way to improve outcomes for people living with chronic and complex physical and mental health conditions. Although few integrated care programmes have been specifically designed to prevent and manage frailty, it is a complex, multidimensional syndrome that requires a well-coordinated response involving many providers from healthcare, social care, housing and community sectors.

A systematic review of 18 comprehensive integrated care programmes for people with multimorbidity or frailty reported improved health-related quality of life, function, and satisfaction with care but no reduction in health services utilisation or costs (Hopman et al.,2016). Seven of nine studies of integrated primary care for frail older people evidenced reduced hospital and/or long-term care utilisation (Béland et al.,2011). The key components of these care models are similar to the elements of the Multimorbidity Care Model developed by the JA on Chronic Diseases and Promoting Healthy Ageing across the Life Cycle (CHRODIS) (Navickas et al., 2016). They are also consistent with the Integrated Care for Older People (ICOPE) Guidelines on community-level interventions to manage declines in intrinsic capacity (WHO, 2017).

This evidence helps to frame frailty as a chronic condition/syndrome requiring education and self-management support for both older people and their caregivers (Harrison et al., 2015). However integrated care for frailty requires effective chronic care plus enablement and rehabilitation to optimise function, particularly at times of a deterioration in health, or when moving between home, hospital or care home.

The key components of an integrated model of care and support to prevent and manage frailty (Hendry et al.,2018) include:

- A single-entry point in the community, generally in Primary Care.
- Use of simple frailty specific screening tools.
- Comprehensive assessment and individualised care plans that address modifiable physical, psychological, cognitive and social factors.
- Tailored interventions by an interdisciplinary team, both in hospitals and community, appropriate to the goals and circumstances of the individual and their caregiver.
- Case management and coordination of support across the continuum of providers.
- Effective management of transitions between care teams and settings.
- Shared electronic information tools and technology enabled care solutions.
- Clear policies and procedures for service eligibility and care processes.

All care providers should be supported to make the required changes in the way care is delivered and to ensure there is a greater focus on outcomes such as care experience, quality of life and ability to participate in society.

Evidence for effectiveness of integrated care must consider the whole system impact, and not just the costs and benefits for health services. The inclusion of data from different care providers and different care settings is critical to understanding cost-effectiveness of integrated care interventions across the whole system (Everink et al.,2018).

Evaluation of such complex interventions is challenging and evaluation studies are rarely conducted over a long enough period to observe optimal impact. Compared to studies of integrated interventions at specific points in the care pathway, there is a relative lack of studies at organisational and system level (Briggs et al., 2018). There is a need for more research on the implementation of integrated care for frailty across the whole system.

What is the role of Intermediate care and transitional care within an integrated model of care?

Intermediate care and transitional care are a broad range of time limited services, from crisis response to support for several weeks or months, that aim to ensure continuity and quality of care and promote recovery at the interface between hospital and home, care home, primary care and community services. These services may particularly benefit persons who have complex support needs or circumstances, are vulnerable to a decline in health status or functional ability or are at increased risk of (re)admissions to hospital or long-term care.

Intermediate care, at home or in intermediate care beds, aims to enable recovery, restore independence and confidence, or prevent a decline in functional ability at times of change in health.

Transitional care services are a subset of intermediate care designed to enable safe, coordinated and timely transfers between care settings.

Intermediate care is best delivered by an interdisciplinary team within an integrated health and social care system that links different providers and levels of care in a collaborative network of care and support that includes partners from community and voluntary sectors. A single point of contact helps to optimise service access, communication and coordination of care.

Health and care workforce should adopt relational approaches, creative solutions and simple technologies that enable and support patients, their families and caregivers to be fully involved in care planning, goal setting and monitoring from early stages. The nature, duration and intensity of the multi-dimensional interventions should be tailored to the needs of the individual, in collaboration with their family and caregivers, and may involve a case management approach for the duration of the episode.

There is clear and growing evidence that many examples of transitional care and intermediate care are effective and can make an important contribution to many positive outcomes for older adults and for healthcare systems. To be effective, services should have sufficient capacity and responsiveness, appropriate expertise, clear governance arrangements, and opportunities for education and training to support team members to work collaboratively and to continually improve service quality and outcomes for people and care systems.

There is strong evidence that intermediate care services can improve functional outcomes and reduce adverse events, including preventable early readmissions (Mas et al., 2018) and premature admission to long term care (Goodwin et al., 2018). There is more evidence for intermediate care delivered at home (Mas et al., 2017) than for bed-based interventions et al., 2017) than for bed-based interventions (Herfjord et al., 2014). Intermediate care is a moderate cost, low volume intervention that has high impact in both short and medium term, particularly if delivered at home with an interdisciplinary team to enable independence and reduce harm.

Although transitional care is a relatively low cost and potentially high-volume intervention that can reduce preventable early readmissions for older adults, the impact of transitional care on outcomes such as functional ability, independence and health and social care costs is not clear (Courtney et al., 2009).

What are the minimum competencies of health and social care workforce to meet the challenges of frailty?

Scientific literature searches updated to 2019 showed that literature and documentation regarding health and social care professionals' education on the concepts of frailty and multimorbidity is still very poor.

This reflects the fact that prevention of frailty has not been considered a priority by academic programs. Delivery of integrated care, which is pivotal for frailty management, is also neglected in these programs. To address this gap, professionals need to be trained in three broad areas of competencies: geriatrics, interprofessional practice and inter-organizational collaboration (Sunfrail, 2018). This has also been highlighted by SAPEA (Science Advice for Policy by European Academies) in its report "Transforming the Future for Ageing" launched in May 2019.

To address the need for educational content in the areas outlined above, ADVANTAGE JA, has developed a common multi-professional capability framework (see Annex 2). This framework consists of knowledge, skills and attitudes for frailty prevention and management that should be addressed by all professionals involved in the care of older people across Europe. Besides the capabilities to correctly identify, screen, assess for and manage frailty, broadly based organizational and strategic approaches are required. They refer to the establishment of multidisciplinary teams, integrated and coordinated care, the use of ICT-tools and person-centred approaches. Education and training should ideally be organized within a continuous and integrated process, supported by national and regional strategies and accompanied by evaluation and quality control mechanisms. Training of community actors is fundamental to detect frailty in its early stages, and in people who do not access professionals or services.

What are the future areas of research on frailty?

Continuing research is needed not only to better understand the nature of frailty but also to improve screening and diagnostic tools and test the effectiveness of interventions. The main research gaps identified are:

- In basic research, the most relevant issues are the identification of subtle systemic dysfunctions prone to develop frailty and the definition of patterns of risk combining different –omics (Erusalimsky et al., 2016; Lin et al., 2017). A crucial issue is factors related with the progressive loss of muscle mass and strength (Calvani et al., 2018), including the heart muscle (Bellumkonda et al., 2017).

- In the field of epidemiology, European studies on frailty prevalence, incidence and trajectories (including their precipitating factors) should be developed with a sound common methodological approach.

- More research is needed on the impact on frailty of the quality of outdoor and indoor air (García-Esquinas et al., 2017), especially the effect of climate-control equipment for nursing homes (Bentayeb et al., 2015).

- Concerning assessment and treatment, knowing which screening and diagnostic scales best suit different settings is warranted. It is also important to explore the adaptation of CGA to different clinical settings.

- Some authors have defended the existence of pre-frailty, a multifactorial and multi dynamic state, potentially reversible before the onset of frailty. Pre-frail individuals are at high risk of progressing to frailty and developing adverse outcomes as disability, hospitalization, institutionalization and death. This topic remains controversial, because of its clinical implications, and more research is needed.

- More clinical trials should be conducted to determine if the Mediterranean diet, loss of weight, vitamin D and protein supplementation, withdrawal of psychoactive drugs, control of polypharmacy and use of tools such as MNA, STOPP-START, BEERS and Laroche, are effective for the prevention or treatment of frailty. Assessment of more specific outcomes should be explored in these trials.
- Usability by older people of ICTs to manage frailty and its effectiveness and cost-effectiveness in different setting should be further investigated.

- Further research is required to identify the most effective combinations of community health and social care interventions for frailty and to understand the stages in which people benefit most from these approaches.
- There is a requirement for well-designed trials of CGA for frail older people within intermediate care services that operate at the interface between hospital and community.
- There is a need for more research on the implementation of integrated care for frailty across the whole system.
- More local, national and European projects for education/training of the workforce need to be funded.

Key messages

The following key messages have emerged from the systematic reviews conducted by the Consortium.

1. Frailty is a geriatric syndrome characterized by a progressive age-related decline in physiological systems that results in decreased functional reserves and a low intrinsic capacity, which confers extreme vulnerability to stressors and increases the risk of a range of adverse health outcomes (WHO definition which ADVANTAGE JA supports).

2. Multi-morbidity, disability and frailty are distinct clinical entities that are causally related, often associated and may overlap. All three occur frequently and have important clinical consequences. What really affects quality of life is function and not disease, and the best predictor of function is frailty.

3. Frailty is very common, although the prevalence reported varies considerably contingent on factors such as the definition used, the age of the population studied, and the frailty assessment instrument/classification used. An overall frailty prevalence of about 18% in the total population over 65 years old (12% in community-dwellers and 45% in hospital/institution settings) seems a reasonable estimate of the current situation in the EU.

4. As frailty is highly prevalent in Europe and is very much associated with disability, monitoring its evolution seems a reasonable way to proceed.

5. Frailty is a potentially reversible condition and may also revert spontaneously to a robust (non-frail) state, especially in its early stages.

6. Frailty is not an inevitable consequence of ageing, it may be prevented and treated to foster a longer and healthier life. In addition, it has a clear negative impact on the costs of health services. Despite that, frailty is not yet at the top of the public health agenda.

7. To prevent disability in older age and support healthy ageing in the JA participating MSs, the first step is to identify the population group at the highest risk and that could benefit most from an intervention aimed at delaying or reversing disability and dependence. These are the individuals with frailty.

8. It is recommended to screen opportunistically for frailty in populations aged over 70 years, giving the possibility of designing and implementing preventive, population-based interventions targeting identified risk factors.

9. General practitioners have been identified as the preferred healthcare professional to identify physical health problems and risks and as such to potentially screen and monitor for frailty at population level.

10. Many instruments have been proposed and are used to identify (screen and diagnose) frail individuals in clinical practice and for public health level frailty detection programs. From all tools available, ADVANTAGE JA proposes those that

fulfill certain characteristics. For screening: Clinical Frailty Scale; Edmonton Frailty Scale; Fatigue, Resistance, Illness, Loss of Weight Index (FRAIL Index); Gait Speed; Inter-Frail; Prisma-7; Sherbrooke Postal Questionnaire; Short Physical Performance Battery (SPPB) and Study of Osteoporotic Fractures Index (SOF). For diagnosis: Frailty Index of accumulative deficits, Frailty Phenotype and Frailty Trait Scale.

11. Individual interventions, either in the community or in every setting of care, often share a three-step structure: 1) frailty screening to identify frail older people, 2) use of diagnostic tools to diagnose frailty, and 3) a CGA to assess individual needs and develop multidimensional interventions to match these needs in the frame of individual care plans.

12. Early stages of frailty are the most appropriate target for intervention because they are more likely to be reversible.

13. The specific components of frailty interventions (both for prevention and treatment) include adequate physical activity and exercise, adequate nutrition, healthy lifestyles and review and optimization of drugs.

14. Models of care should take into account the need to approach older people not just in terms of their diseases but also in terms of physical, cognitive and psychosocial care and support to prevent functional decline, frailty and disability. Key components to address frailty are those that define also integrated care. A coordinated system able to provide the most effective care in the different settings (community, primary care, hospitals and residential or nursing homes) needs to be provided.

15. Health and social care professionals across settings and countries need to be trained to address future needs related to ageing, frailty and disability.

16. Further research is needed not only to better understand the nature of frailty, but also to improve screening and diagnostic tools and test the effectiveness of interventions. In this regard, ADVANTAGE JA has identified a number of areas that will benefit from EU research funding.

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ANNEX 2. European multi-professional capability framework for prevention and management of frailty

The Multi-Professional Capability Framework for Frailty Management and Prevention was developed under the auspices of the ADVANTAGE JA in collaboration with the European Geriatric Medicine Society (EuGMS). It targets the improvement of the quality of care of older people by setting multi-professional principles in education and training of health and social care professionals across Europe.

The development of the framework is based on a consensus process by applying a modified Delphi technique. Altogether 25 experts in the field of frailty management and prevention participated in this process. The final framework is structured in four domains: 1) Understand Frailty; 2) Identification of Frailty; 3) Person-centred collaborative working; 4) Managing Frailty and its Prevention; and in 13 subdomains, each of them with its own capabilities.

All these capabilities are presented in the table below:

European Multiprofesional Capability Framework
1. Understand Frailty
1.1. *Definition & Prevalence*
1.1.1. Knowing that frailty is an age-associated condition of reduced resilience and increased vulnerability to adverse events. 1.1.2. Knowing that frailty can be defined through the "frailty phenotype" and the "cumulative deficit" models of frailty.
1.2. *Disability, Multimorbidity and Dependency*
1.2.1. Understand the concept of frailty as a multidimensional condition and recognize its individual nature and stages, including all determinants of health identified by the WHO (CSDH, 2008). 1.2.2. Understand that pre-frailty and frailty are potentially reversible with recognized transitional stages from robust through dependency/disability to the end of life. 1.2.3. Knowing that the trajectories of frailty are influenced by lifestyle and other factors, with geriatric syndromes such as confusion, falls, incontinence, impaired mobility and polypharmacy having a complex multi-directional relationship with frailty.
1.3. *Personal impact*
1.3.1. Understanding the multidimensional, heterogeneous nature of frailty and its complex multidirectional relationship with many different aspects of a person's life (including multimorbidity, functional ability, physical health, psychosocial health and cognitive function).
2. Identification of Frailty
2.1. *Screening, Diagnosing and Assessment*
2.1.1. Apply common instruments, including those suggested in the Frailty Prevention Approach (FPA) document, to support the identification and assessment (CGA) of frailty as part of an integrated care approach to managing frailty. 2.1.2. Knowing that the assessment of frailty should include the consideration of the potential use of assistive technology (AT). 2.1.3. Understand the importance of early recognition and timely management of frailty and its associated signs and symptoms.

3. *Person-centred collaborative working*

3.1. *Person-centred approaches including communication*

3.1.1. Understand that person-centred care includes all elements of a person's life that are important to them and enables shared decisions in consideration of persons' priorities.

3.1.2. Demonstrate effective communication with older people, family and carers to achieve shared decision making and to support carers in their individual care-giving role.

3.2. *Collaborative and integrated working*

3.2.1. Be able to share information with other professionals, including an older person's wishes, in a timely and appropriate manner, considering issues of capacity, consent and confidentiality.

3.2.2. Be able to work in partnership with others towards a common goal, exploring and integrating the views across multidisciplinary teams and organizations to deliver care in a coordinated and integrated way, showing an understanding of the role of others.

4. *Managing frailty and its prevention*

4.1. *Preventing and reducing the risk of frailty progression*

4.1.1. Know evidence-based interventions to improve independence and quality of life for people at risk of or living with frailty.

4.1.2. Be able to measure, monitor and report important measures of frailty outcomes in different settings including all determinants of health.

4.2. *Living well*

4.2.1. Understand the concept and principles of a community development, asset-based approach to care and support for older people at risk of frailty or those already living with frailty.

4.3. *Promoting independence*

4.3.1. Be able to provide specific advice and guidance on changing or adapting the physical and social environment to promote independence and ensure physical safety, comfort and emotional security.

4.4. *Community skills*

4.4.1. Be able to promote the benefits of developing social skills and engaging with the local community, amongst colleagues and senior managers/board members in relation to improving outcomes for people living with frailty and those important to them.

4.5. *Care and support planning*

4.5.1. Understand the importance of care and support planning being a "holistic" and person-centred process at all levels of care that needs to be reviewed regularly.

4.6. *Research and evidence-based practice*

4.6.1. Understand the reasons for conducting service evaluation and research on frailty and frailty prevention and be able to participate in service evaluation and research in the workplace.

4.6.2. Understand how local and national policy and the outcomes of research in frailty care and support can inform and impact on workplace practices and care delivery.

4.7. *Leadership in transforming services*

4.7.1. Understand the importance of continuing professional development to ensure the methods used for preventing and managing frailty are robust, valid and reliable.

4.7.2. Understand that everyone has a part to play in supporting people living with frailty to have the best possible quality of life.

4.7.3. Be able to use people's feedback and person-centred outcomes to advocate and coproduce investment in services for older people at risk or living with frailty and those supporting them.

4.7.4. Recognize the importance of effective clinical governance which involves all stakeholders for overall management of frailty.

Reference:

CSDH (2008). Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. Geneva, World Health Organization. Available at: https://apps.who.int/iris/bitstream/handle/10665/43943/9789241563703_eng.pdf;jsessionid=3A37DBC5EE56DD9D1B7AAF33DF8AAAF0?sequence=1 [Last access: April 24th, 2019]

ANNEX 3. Member states road maps

AUSTRIA

Leader: Medical University of Graz (Prof. Regina Roller-Wirnsberger, Sonja Lindner, Lea Kolosovski)

Stakeholders involved in the development of this Road-map: Federal ministry of labour, social affairs, health and consumer protection

Is the roadmap approved by the Ministry of Health?: Yes

Key factors to ensure implementation success: Close feedback loops with persons responsible; close collaboration with the Federal ministry of labour, social affairs, health and consumer protection; Application of quality assurance cycle (Plan/Do/Check/Act).

This Roadmap illustrates a short and concise representation of national activities and measures. A detailed description is available upon request.

ACTIVITIES

1. Awareness and stakeholders engagement including older people empowerment

a) ***Networks (à strategic: long-term character):***

- **Pflegedrehscheibe Graz:** https://www.graz.at/cms/beitrag/10258766/7762004/Pflegedrehscheibe.html#
- **Case Management – Care and Nursing Service in Vorarlberg:** https://www.betreuungundpflege.at/case-management/
- **Nursing Counselling Salzburg:** https://www.salzburg.gv.at/soziales_/Documents/Publikationen/Pflegeberatung.pdf
- **Styriamed Net:** https://www.styriamed.net/
- **Kärngesund:** http://www.kaern-gesund.at/

b) ***Project "Primary Care for Future" (à operational: short-term character):***

- http://www.wissenschaft.steiermark.at/cms/beitrag/12666607/144543553/

2. Commitment to action on frailty (Policy alignment)

a) ***Dialogue Healthy and Active Ageing (à strategic: long-term character):***

Long-term dialogue across political areas to develop a joint strategy on "active ageing" in alignment with the Austrian health target "Healthy living and working environments". Currently the concept for the strategy is in development, in doing so a strong emphasis will be put on frailty prevention.

b) ***Health Targets of the Austrian Federal States (à strategic: long-term character):***

- **Vienna Health Targets 2025:** https://gesundheitsziele.wien.gv.at/site/ziele/
- **Styria Health Plan 2035:** http://www.gesundheitsplan-steiermark.at/Seiten/Service-Der-Gesundheitsplan-2035.aspx
- **Upper Austria Health Targets:** https://www.ooegkk.at/cdscontent/?contentid=10007.704946&viewmode=content
- **Tyrol Health Targets:** https://www.tgkk.at/cdscontent/?contentid=10007.789755&viewmode=content

3. Promotion of healthy ageing and frailty prevention

a) ***Evidence-based guidelines on health promotion for older people by health pro elderly (à strategic: long-term character):*** The document includes best practices of health promotion in old age.

https://www.sozialministerium.at/cms/site/attachments/4/1/2/CH3993/CMS1504094348199/hpe-guidelines_online.pdf

b) ***Activities to support frailty-management on large-scale:***

Health Dialogue Mürztal (à strategic: long-term character):

The aim is to develop new offers of health promotion and to facilitate knowledge about prevention and chronic diseases. https://www.vaeb.at/cdscontent/?contentid=10007.721381&portal=vaebportal&viewmode=content

4. Population surveillance, screening and early diagnosis

a) ***ATHIS Survey (à strategic: long-term character):***

Extensive survey dealing with the overall health of Austrian citizens from the age of 15 up

It is planned to integrate frailty-related parameters within the next survey period with the help of ECHI indicators (European Core Health Indicators). A list of the indicators can be found here: https://www.volksgezondheidenzorg.info/echi-indicators/all-indicators

b) ***Austrian Interdisciplinary Study on the oldest old Austrian Interdisciplinary Platform on Ageing (ÖPIA) (à strategic: long-term character):***

The Austrian Interdisciplinary Study on the Oldest Old (ÖIHS) is based on self-reported health parameters of persons older than 80 years. http://www.oepia.at/hochaltrigkeit/?page_id=17

5. Appropiate evaluation and interventions

a) ***Acute Geriatrics/Remobilisation/Aftercare Guidelines and Structure (à strategic: long-term character):***

- **Process Manual AG/R:**
  It contains basic recommendations with regards to significant processes in acute geriatrics and should support institutions in the development and organisation of the processes. It contributes to a nationwide qualitative comparable supply in geriatrics.
  https://jasmin.goeg.at/308/1/Prozesshandbuch_AGR_0-Fehler-PDF.PDF
- **AG/R Institutions:**
  Interdisciplinary primary health care of directly admitted patients and continuation of the treatment of acutely ill geriatric patients from different departments by a qualified interdisciplinary geriatrics team and by a multidimensional treatment and care provision (with consideration of medical, functional, psychological, cognitive and social aspects of the diseases). A catalogue of the institutions and service offers is available upon request.

b) ***Discharge Management (à strategic: long-term character):***

- **Legal Framework:**
  The Federal Ministry of Health drafted recommendations for efficient handling of the hospital admission and discharge management named AUFEM 2018. This detailed guideline should demonstrate the basic framework and lead to a standardized hospital discharge process. The implementation of the quality standards (AUFEM) takes place throughout Austria.
  https://www.sozialministerium.at/cms/site/attachments/1/3/0/CH3970/CMS1350910195632/qualitaetsstandard_aufem.pdf
- **Project PIK —Patient— oriented Integrated Care:**
  The structuring of discharge management is a subproject of the project PIK (patient-oriented integrated care). The final product of this subproject is the guidebook AUFEM, which contains the definition of the target group and defines the key tasks of the discharge management.
  http://othes.univie.ac.at/22146/1/2012-07-20_0501431.pdf

c) ***My AHA – My active and healthy ageing project (à operational: short-term character):***

My AHA is a 4-year Horizon2020 project which started on January 2016. The main aim of my-AHA is to reduce frailty risk by improving physical activity and cognitive function, psychological state, social resources, nutrition, sleep and overall well-being. http://www.activeageing.unito.it/en/node/18

6. Establish and continually improve an integrated model of care to completely address frailty

a) ***Integrated Care (à strategic: long-term character):***

- **Legal Framework:**
  Agreement pursuant to article 15a of the Federal Constitutional Law (B-VG) "Zielsteuerung – Gesundheit" (target control – health).
  The agreement was implemented in 2013 and reformed in 2017 for the purpose of adaption to changed circumstances and framework conditions, such as demographic developments.
  https://www.sozialministerium.at/site/Gesundheit/Gesundheitssystem/Gesundheitsreform/Rechtsgrundlagen_der_Zielsteuerung_Gesundheit_ab_2017; https://www.ris.bka.gv.at/Dokumente/BgblAuth/BGBLA_2017_I_97/BGBLA_2017_I_97.html

b) ***Project "Age-friendly region" (à operational: short-term character):***

Chance B (as part of the program Interreg) aims to provide better life quality by implementing measures to provide a longer independent life at home in old age by further developing case and care management. The project runs from 2017 until 2019. https://www.chanceb-gruppe.at/de/Chance-B-Gruppe/Innovation/Aktuelle-Projekte/Age-friendly-Region

7. Ensure a sustainable and approprieteley trained workforce (education & training)

a) ***Framework Conditions in Education - Health Education Curriculum (à strategic: long-term character):***

- **Laws and education in the field of medicine; doctors:** For the first time, the term "frailty" was mentioned in the curriculum of medical education (specialization "geriatrics"; postgraduate). Diagnosis, supervision, health promotion of older people, but also the knowledge of integrated care belong to the basic education of general practitioners (undergraduate). Discipline-specific geriatrics is also part in the education of medical specialists (undergraduate).
- **Laws and education in the field of other health professions:** The education programs of nurses, physiotherapists, dietologists, occupational- and speech therapists.
  http://www.gesundheitsausbildungen.steiermark.at/cms/dokumente/11138769_73431300/365c25a3/34029_LehrplanpsychGuk.pdf
  https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10011026
  https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20004516
  https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10011138
  https://www.aerztekammer.at/documents/20152/86090/KEF_RZ_VO+2015+2016_2016-12-16+konsolidiert_inkl+Anlagen.pdf/905f7c0c-cfb6-a5d4-19e0-0faa1a733c7e
  https://www.geriatrie-online.at/wp-content/uploads/2018/03/Spezialisierungsverordnung-2017.pdf

8. Strengthen research capacities on frailty

Currently not foreseen

9. Implementation support (finance, data sharing and ICTs)

a) ***Recommendation: Linking of ELGA and MEDOCS (à strategic: long-term character):***

E-health has become an integral part of the Austrian health system. With the introduction of ELGA, the electronic health file, an information system will facilitate access to health data for physicians, hospitals, care institutions and pharmacies. One major aim is the improved information flow, especially when several health institutions or professionals are involved in the therapeutic chain.
Links: https://www.elga.gv.at/en/about-elga/index.html
https://www.elga.gv.at/faq/gesetzliche-grundlagen-von-elga/index.html

b) ***Telerehabilitation/ICT (à strategic: long-term character):***

- **Legal Framework:**
  Telerehabilitation is the implementation of rehabilitation activities using ICTs. The patient continues his rehabilitation within the familiar environment.
  https://www.physioaustria.at/news/telerehabilitation
  https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10008147
  https://de.wikipedia.org/wiki/Telerehabilitation
  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3799503/
  https://www.aws.at/fileadmin/user_upload/Downloads/Booklets/LifeScienceReport_Austria.pdf
- **Project "TeleReha":**
  The health care institution Bad Schallerbach in Upper Austria, in cooperation with the mining & railways insurance company (VAEB), is providing tele rehabilitation measures in the framework of a study. https://www.vaeb.at/cdscontent/?contentid=10007.783655

c) ***Health telephone:***

The health-telephone is the first point of contact for patients in old age in Upper Austria and Styria.
https://www.stgkk.at/cdscontent/?contentid=10007.812969
https://www.1450.at/1450-die-gesundheitsnummer/

10. Monitoring quality and evaluating value/cost-effectiveness

Crrently not foreseen

BELGIUM

Leader: Sciensano (Belgian institute for health)

Stakeholders involved in the development of this Road-map: 1) Federal Public Service Health Food chain Safety and Environment, 2) Vlaams Agentschap Zorg en Gezondheid —VAZG (Flemish Agency for Care and Health), 3) Agence pour une Vie de Qualité— AVIQ (Walloon Agency for a Quality Life), 4) Ministerium der Deutschsprachigen Gemeinschaft (Ministry of the German-speaking Community), 5) Common Community Commission Brussels

Is the roadmap supported by the Ministry of Health?: It was established in collaboration with the health authorities at the different levels, but it cannot be considered as a formal commitment for the implementation of all activities that are proposed.

Key factors to ensure the success of its implementation: All different levels of the Belgian health authorities (Federal government, Regions, Communities) are aware of the importance to tackle frailty in the coming years and committed to take actions in the field. The successful implementation of activities will however also depend on the availability of required budgets.

ACTIVITIES
1. Awareness and stakeholders engagement including older people empowerment
Decide on a definition of frailty with a very clear concept Sensitize all stakeholders and formulate specific advices (especially for public administrations) Information campaign within the general population Information campaign on this topic for older persons and their kin: press, small film, leaflet with information and concrete advises, etc. Sensitization of the population that is directly concerned by the main actors Exchange of information on this topic during meetings of public health administrations Promote and organise local care to decrease dependency and keep older (frail) people in their own living environment In Wallonia, deployment of the European project "Aidant-proche/Réseau Service" aimed at developing the psychosocial skills of home care professionals and offering quality assistance to caregivers Implementation of "Age-Friendly Cities" in Wallonia; Partners: University of Louvain, provinces, centres of health promotion and prevention, social and local organisations
2. Commitment to action on frailty (Policy alignment)
In the framework of the transfer of competences as a result of the 6th state reform in Belgium, frailty will be increasingly addressed in the political decision making at the regional levels. More geriatric expertise in hospitals, nursing homes and at home, on request of the person or the medical practitioner The Ministry of the German community advises to asses frailty status among • all people entering a nursing home • people contacting the administration of the German speaking community that deals with people with a handicap and older people (DSL) • in a more general context all people > 70 years Put in place working groups at the level of the administrations that elaborate projects in relation to frailty Include the topic in national and regional health reports Use results on existing studies (e.g. a study concerning the introduction of an autonomy insurance) to guide political decisions

3. Promotion of healthy ageing and frailty prevention

Reinforcement of existing projects in the domain of sports, nutrition, substance use with a focus on older people

The Expertise Centre Fall and Fracture Prevention Flanders (EVV) is a partnership between several actors in Flanders working on this theme, both in the older people at home and who are in a residential setting. For both audiences, there are several assignments for which multiple workgroups are set up. https://www.valpreventie.be/procesbegeleiding-bij-implementatie-van-valpreventie

Deployment in Wallonia of the Wallonian Plan on Nutrition, Health and Well-being of seniors ("Plan Wallon Nutrition, Santé et Bien-être de Aînés") in nursing home and at home

Focus on the dental health of older people in nursing homes in Wallonia

4. Population surveillance, screening and early diagnosis

The BelRAI and BelRAI screener are instruments that support health care professionals and health care organisations in the assessment and monitoring of the health status of frail people, or people in complex care situations. This is done through questionnaires assessing the medical, physical on social functioning of the (frail) patient. During the next years the use of the BelRAI and the BelRAI screener will be gradually implemented in the care sector (on all levels: federal, communities, regions).

At the level of the German community it is planned to develop a standardized form/screening procedure for medical practitioners (or other professionals).

Analyse results on frailty from the national Belgian health interview survey 2018

Use of BelRAI data to analyse the frailty status at population level

5. Appropiate evaluation and interventions

Evaluation of pilot projects integrated care (see point 6)

Caring for quality of life and vitality are an integral part of qualitative care within the Flemish policies for older people.

This is the starting point for the Flemish Indicator Project Residential Care (VIP WZC). By standardizing measurement values, older people who are vulnerable can be better detected.

Measuring and registration is done by the Residential care facilities since 2013. Reporting to the Flemish Agency for Care and Health is done every six months. https://www.zorg-en-gezondheid.be/resultaten-van-kwaliteitsmetingen-in-woonzorgcentra.

Within this project, the quality of life was measured over three years (2014 – 2016). The results are available on: https://www.zorg-en-gezondheid.be/resultaten-van-de-bevraging-in-woonzorgcentra-over-de-kwaliteit-van-leven.

The next phase is now focusing on guaranteeing qualitative initiatives and exchange of good practices in order to further implement the quality indicators as part of the regular functioning of a residential care facility.

6. Establish and continually improve a integrated model of care to completely address frailty

Implementation of a common plan for chronic disease focusing on integrated care for a better health. It includes a long-term policy vision on integrated care (also for frail people) with concrete action lines. This vision is supported by all stakeholders.

Implementation of pilot projects integrated care. In several pilot projects the management of frail people is a key element of the action plan. The projects started on 01/01/2018 and run until 2022.

Implementation of protocol 3 projects. These are projects commissioned by the National Institute of Disability and Health Insurance on the financing of alternative care models for older people. Currently projects are planned until 31/12/2020.

In Brussels a regional structure has been created to support primary health care. A project supported by this structure is "Boost" which aims to test integrated care between the hospital and primary care and promote the BelRAI instrument in home care setting by a multidisciplinary team (pilot project).

Better collaboration between hospital and primary care, especially when the patient is discharged from hospital, by making use of international guidelines of good practice

Flanders implements a reform of the primary care, integrating health and social care. A Decree of 2019 establishes the organisation of the primary care, the regional care platforms and the support to the primary care providers. It is the basis for further legislation of the reform programme and all large projects such as the installation of the Primary Care Boards, the regional care zones and the Flemish Institute of Primary Care (started 1/09/2019). The reform aims for a patient centred approach.

7. Ensure a sustainable and appropriately trained workforce (education & training)

Ensure an adequate basic training for health professionals but also for other professionals who are in contact with older people

Adapt the calendar of training sessions for health professionals to include different frailty related topics

The global plan for chronic diseases ensures that principles of integrated care are included in basic training of health care professionals, also in permanent training programmes. It includes a long term policy vision on integrated care (also for frail people) with concrete action lines which are supported by all stakeholders.

Flanders has a project on process coaching for care and wellbeing in residential care centres. In the first phase, the project is based on fall and fracture prevention, malnutrition, preventive oral care and psychotropic drugs. The process coach works on a tailor-made basis with the facility. The nursing home will implement gradually fall prevention in Flemish residential care centres on the basis of the implementation plan for fall and fracture prevention. The partner organisation 'Healthy Living' is coordinating the proces.

In Wallonia, review the missions, function and skills of the referent in dementia in nursing homes

8. Strengthen research capacities on frailty

Use of BelRAI data for analyses and statistics

Link existing data on frailty in Belgian with other databases (mortality, health insurance, …)

Include frailty on the research agenda of BELSPO (Belgian Science Policy), the Federal Public Planning Service Science Policy

Support of Belgian research groups with expertise in the domain of frailty: Frailty in Aging Research Departement (Free University Brussels – VUB), Institute of Health and Society (UCLouvain), Research Department ELIZA, University of Antwerp…

9. Implementation support (finance, data sharing and ICTs)

The Government of Flanders intends providing a digital platform to work on a shared digital care and support plan [DZOP] in order to support interdisciplinary collaboration and data sharing in the context of care and welfare. The goal is an integrated care provision that is based on the individual's care needs and objectives. Creating this collaboration platform fits on the one hand in the evolution of the primary care towards integrated care, including in parallel the existing or future reforms such as on the secondary care and on the specialized care. On the other hand, the platform will build on the existing data sharing amongst professionals such as Vitalink; on the Flanders assessment tool of a patient's self-sufficiency Belrai; and will be linked with the Flemish Social Protection which provides non-medical support; ….

10. Monitoring quality and evaluating value/cost-effectiveness

For monitoring and evaluating value/cost-effectiveness at the level of Flanders: see 5.

BULGARIA

Leader: Plamen Dimitrov, Mirela Strandzheva, Milena Vladimirova

Stakeholders involved in the development of this Road-map: Public health faculties around the country, several NGOs, different departments within the NCPHA

Is the roadmap supported by the Ministry of Health?: No

Key factors to ensure the success of its implementation: Although a new term, frailty is a rapidly evolving concept among the research field in the country. This is the first step towards increased knowledge and awareness of the government, and their imperative engagement in the process of integrating "frailty" into the newly National Strategy for Active Aging in Bulgaria 2019 – 2030.

ACTIVITIES

1. Awareness and stakeholders engagement including older people empowerment

Awareness campaign to increase knowledge about ageing, ageism and frailty

- Face up to Frailty campaign —dissemination activities within the National Programme for Prevention of NCDs 2014—2020 (conducted by NCPHA, funded by MH)
- Strengthen the capacity of stakeholders to address policies on the older people and improve attitudes towards them - annual conferences considering the challenge of aging population: trends, consequences, policies (National Sports Academy, Center for Demographic Research and Training, Bulgarian Sports Foundation, municipalities)

Involve key stakeholders from relevant sectors; intersectoral working group on ageing and frailty that includes older people and caregivers:

- National Strategy for Active Aging in Bulgaria 2019 – 2030 —Intersectoral working group— Social Assistance Agency; Employment Agency; Executive Labor Inspectorate; Ministry of Finance; Ministry of the Interior; Ministry of Health; RHI; Emergency Centers; NHIF and RHIF; National Insurance Institute; Ministry of Culture; Ministry of Education and Science and Center for Human Resources Development (HRDD); National Support Unit for the Electronic Platform for Adult Learning in Europe; Ministry of Regional Development and Public Works; Ministry of Youth and Sports; Regional and municipal government and administrations.
- National Strategy for Active Aging in Bulgaria 2019 – 2030 – Priority Areas 3 and 4
  - Strengthen the capacity of institutions implementing policies for the older people
  - Continuous updating of policies for older people at local, regional and national level
  - Improving the coordination system

2. Commitment to action on frailty (Policy alignment)

- Alignment of previous/other strategies or plans with frailty (using WHO concept, 2015):

National Strategy for Active Aging in Bulgaria 2019 – 2030:

- Continuous national initiatives for healthy aging on an annual basis
- Conducting a broad communication campaign for active aging
- Examining and discussing the problem of violence against older people;
- Non-discrimination on grounds of age.

3. Promotion of healthy ageing and frailty prevention

Guidelines to prevent frailty/promote healthy ageing within the National Strategy for Active Aging in Bulgaria 2019 – 2030

4. Population surveillance, screening and early diagnosis

Evaluation of frailty on a national/regional survey/study:

- A population-based picture —investigation within the National Programme for Prevention of NCDs— survey conduction within the National Program for Prevention of NCDs on behavioural risk factors among different age groups (conducted by NCPHA, RHI, funded by MH)

Frailty observatories/registries:

- National Strategy for Active Aging in Bulgaria 2019 – 2030: Priority Area 4, measure 5 – Developing a network for collecting data on older population with the aim of creating sustainable policies
- Health Strategy 2020 —Developing and conducting of periodical integrated screening of older people aiming to discovering some subjectively undetected disturbances in their health status— NHIF, medical facilities, science institutions, etc.; funding provided by NHIF and MH

5. Appropiate evaluation and interventions

Develop guidelines in specific management aspects (polypharmacy, physical activity, nutrition programs, etc.):

- Health Strategy 2020 —Promoting a healthy life— long lifecycle and healthy aging with a special focus on people over 50 —encourage a healthy life— style from midlife, which will include interventions such as stopping smoking and reducing alcohol consumption, increasing physical activity, and improving the diet to achieve and maintain a healthy weight, to improve health status in general and to reduce the risk of becoming frail in later life;
- Development of individual programs for physical activity for specific groups, including older people (at home and in the community) - NCPHA, funded by MH;
- Health Strategy 2020 —Developing and promoting science— based approaches to nutrition for older people – NCPHA, funded by MH;
- National Strategy for Active Aging in Bulgaria 2019 -2030; Priority area 3: Improving access of older people to quality and safe medicines at affordable prices, including improve medication appropriateness, prevent adverse drug events and reduce drug costs

6. Establish and continually improve an integrated model of care to completely address frailty

- (possibility) Promotion of interventions within the National Strategy for Active Aging in Bulgaria 2019 – 2030 - National Strategy for Active Aging in Bulgaria 2019 – 2030: Priority Area 3, Measure 1 – Continuous of existing e to promote healthy lifestyles and develop new programs with a special focus on older people.
- National Strategy for Active Aging in Bulgaria 2019 – 2030: Priority Area 3, Measure 5 - Maximizing autonomy in long-term care:
  - Take measures to improve long-term care for older people
  - Improvement of the legal framework in the direction of increasing the access and quality of the health services (clear-cut policies and procedures)

7. Ensure a sustainable and appropriately trained workforce (education & training)

Possibility of including *FPA recommendations about core capabilities* in:

- Professional training within Health Strategy 2020 —Provision of training for staff providing health services for older people, incl. in the field of psychological assistance and support for older people, long— term care, etc., funded by MH, Ministry of Labor and Social Policy and OPHRD 2014-2020 (monitoring and evaluation of the training in every second year of the programme);
- Increasing the professional qualification of the providers of health and integrated health and social services for older people - MLSP, RHI, medical facilities, GPs, medical specialists, psychologists, etc., funded by MH and OPDHR 2014-2020 - Increasing the professional qualification of the providers of health and integrated health and social services for older people - MLSP, RHI, medical facilities, GPs, medical specialists, psychologists, etc., funded by MH and OPDHR 2014-2020 (Health Strategy 2020);

- Improvement of specialization within Health Strategy 2020 - Improvement of specialization of staff in the field of psychological assistance and support for older people, as well as of doctors from the main specialties for profiling in the field of geriatrics and gerontology, MLSP, RHI, MHS, GPs, medical specialists, psychologists and others, funded by MH and OPRD 2014-2020;
- Guidelines and methodical materials within Health Strategy 2020 —Development of guidelines and methodical materials for good practice for specialists providing health services for older people— NCPHA, RHI, scientific societies, funded by MH;
- Professional seminars, conferences, roundtables within Health Strategy 2020 - Seminars, conferences, roundtables with healthcare professionals for older people to exchange experiences and learn about innovation in this direction, NCPHA, RHI, scientific societies, funded by MH;
- Dissemination of education materials within Health Strategy 2020 - Developing, printing and dissemination of manuals, creation of study videos and other materials for methodological support of medical specialists for work in the field of prevention and control of risk factors and promotion of healthy lifestyle, NCPHA, MH, RHI, funded by MH

8. Strengthen research capacities on frailty

Facilitate the creation of multidisciplinary research networks:

- Public health faculties around the country

Facilitate the cooperation of national research groups with foreign ones.

9. Implementation support (finance, data sharing and ICTs)

Strengthen coherence between different ministries.

10. Monitoring quality and evaluating value/cost-effectiveness

Include frailty on the Health targets:

National Strategy for Active Aging in Bulgaria 2019 – 2030

CROATIA

Leader: Croatian Institute of Public Health.

Stakeholders involved in the development of this Road-map: Ministry of Health, Ministry of demographic, family, youth and social welfare; Experts group.

Is the roadmap supported by the Ministry of Health?: Yes.

Key factors to ensure the success of its implementation: Extension cooperation with stakeholders.

ACTIVITIES
1. Awareness and stakeholders engagement including older people empowerment
Implementing activities to encourage physical activity and proper / adequate nutrition in the National Program Healthy Living.
2. Commitment to action on frailty (Policy alignment)
Implementing activities to encourage physical activity and proper / adequate nutrition in the National Program Healthy Living.
3. Promotion of healthy ageing and frailty prevention
4. Population surveillance, screening and early diagnosis
5. Appropiate evaluation and interventions
6. Establish and continually improve a integrated model of care to completely address frailty
7. Ensure a sustainable and approprieteley trained workforce (education & training)
Organization of education in accordance with the ADVANTAGE JA State of the Art Report
8. Strengthen research capacities on frailty
9. Implementation support (finance, data sharing and ICTs)
10. Monitoring quality and evaluating value/cost-effectiveness

CYPRUS

Leader: Dr Olga Kalakouta, Mrs Chryso Gregoriadou, Mrs Elena Makrigiorgi.

Stakeholders involved in the development of this Road-map: Ministry of Health, Mental Health Services, Nursing Services, Health Monitoring Unit.

Is the roadmap supported by the Ministry of Health?: YES

Key factors to ensure the success of its implementation: Commitment of the Ministry of Health to develop a Strategy on Ageing including frailty and to promote the implementation of the Roadmap as part of this Plan, with the active involvement, at all stages, of other stakeholders, health and other professionals, the academia and older people.

ACTIVITIES
1. Awareness and stakeholders engagement including older people empowerment
Organise awareness activities towards increasing knowledge about ageing, ageism and frailty among the general population and involved professionals. This will be initiated after drafting the national strategy on ageing including frailty. Coordination of actions through a multidisciplinary participation including representatives of older people.
2. Commitment to action on frailty (Policy alignment)
Preparation and Adoption of a Strategic Plan on Ageing including Frailty (2021) in collaboration with various stakeholders of the area of health (including the Health Insurance Organization), Health Professional Associations, Universities as well as the representatives of older people, etc. Approval of the Strategic Plan by the Ministry of Health (2021). Promotion of the implementation of Strategic Plan 2021 -2023. Adoption and dissemination of the WHO definition of frailty – add the logo of advantAge Project on the webpage of MoH, use of social media (e.g. Facebook of MoH and national health sites) and to the medical and mental health professionals (2021).
3. Promotion of healthy ageing and frailty prevention
Involvement and cooperation with civil society and various stakeholders (2021- 2023). Screening frailty over 70 years old in Primary Care using an electronic frailty index (already used by other partners) (2022- 2023). Screening of individuals aged over 70 years of age receiving primary health care (2022- 2023).
4. Population surveillance, screening and early diagnosis
Create useful national guidelines that include some of the more effective strategies recommended by Advantage (2022). Create and Develop programs for prevention and early intervention (2022) Implementation of Frailty diagnosis in older adults without disability using a tool – according to algorithm of the Project (2022 – 2023). Coordination of home health care and social care (2022 – 2023). Monitor of polypharmacy in elders at home – use of tool to manage inappropriate polypharmacy (suggested by AdvantAge) (2022 – 2023).

5. Appropiate evaluation and interventions
Promotion of the development of guidelines on specific aspects related to frailty such as vaccinations, polypharmacy, physical activity, nutrition, etc. Promotion of health through the lifecycle and healthy ageing.
6. Establish and continually improve a integrated model of care to completely address frailty
Empower and expand community services to provide continuity and co-ordination of care (2021 – 2022). Enhance the role of multidisciplinary team in hospitals and community services for effective management of frailty (2021 – 2022). Implement pilot programs of integrated care linking hospitals and community care (recommended by AdvantAge) (2021 – 2022).
7. Ensure a sustainable and appropriately trained workforce (education & training)
Training of health professionals for frailty, screening tools, etc (2021 - 2022). Recommendation to universities to include frailty in undergraduate and postgraduate curricula in medicine, occupational therapy, psychology and nursing (2022- 2023).
8. Strengthen research capacities on frailty
Encourage universities and health professionals for research proposals epidemiological studies on frailty prevalence, incidence and trajectories (2021). Increase utilisation of European funds for research (2022-23).
9. Implementation support (finance, data sharing and ICTs)
Promotion of actions of the Strategic Plan on ageing including frailty.
10. Monitoring quality and evaluating value/cost-effectiveness
Explore the inclusion of frailty among other health targets of the coming years.

FINLAND

Leader: Teija Hammar

Stakeholders involved in the development of this Road-map: Finnish stakeholder network.

Is the roadmap supported by the Ministry of Health?: YES

Key factors to ensure the success of its implementation:

- support by the Ministry of Social Affairs and Health;
- dissemination of information using different channels;
- cooperation across different ministries and bodies, and experts.

ACTIVITIES

1. Awareness and stakeholders engagement including older people empowerment

1. **The improvement of functional capacity and the prevention of frailty will have a part in national strategies, recommendations and programmes, e.g. the National Programme on Aging, quality recommendations, the programme of the new government and the national memory programme**
   - frailty will be visible in the National Programme on Aging, Socially Sustainable Strategy and other strategies.

TOOLS and ACTIVITIES for implementation

- The National Programme on Aging, the Elderly Care Act, Quality recommendations for older people services and the Prime Minister Rinne's Government Programme and national programmes shall feature sustaining functional capacity and health promotion and the prevention of frailty
- health and welfare promotion and prevention of decline of functional capacity are included in the Government Programme.
- the Elderly Care Act and the Quality Recommendations for older people services will be updated
  - there are representatives in different working committees who make sure that the themes of functional capacity and prevention of frailty are kept on the agenda.
- fruitful forms of cooperation will be formed across different ministries and areas of government administration in order to advance functional capacity and to prevent frailty.
- as a part of the official programme of Finland's Presidency of the Council of the European Union, a high-level Silver Economy Forum will be organized in July 2019 and another event (Demographic Change, Equality and Wellbeing – Good examples of policy integration JPI MYBL) in October, in which it is possible to address the frailty phenomenon.
- Implementation of strategies, recommendations and programmes: frailty is one priority in municipalities'/regions' own strategies.

1. **Increasing general knowledge and understanding of frailty and the prevention of frailty**
   - decision makers, service organizers and providers, professionals and citizens understand the scope of frailty as a phenomenon, and its effects to society, including special groups like people suffering from memory disorders

TOOLS and ACTIVITIES for implementation

- National Institute of Health and Welfare, the Ministry of Social Affairs and Health, the national stakeholders network and other key stakeholders from relevant sectors will be utilized in disseminating knowledge in their own networks
- examples of communication channels include web pages, social media platforms, seminars, campaigns, working groups, blogs, research publications and different projects.

2. Commitment to action on frailty (Policy alignment)

Finnish Programme on Aging follows the WHO Healthy Ageing concepts.

TOOLS and ACTIVITIES for implementation and follow-up: see above 1.

3. Promotion of healthy ageing and frailty prevention

The aim of the Finnish aging policy is to promote older people's functional capacity, independent living and active participation in the society.

TOOLS and ACTIVITIES for implementation

- more Finnish cities to join Age Friendly Cities program by raising awareness using different channels (web pages, social media etc.)
- it is the responsibility of municipalities (i.e. local authorities) to promote healthy ageing and wellbeing by law
- social and health care services personnel and the general public will be able to obtain information about national recommendations (nutrition, exercise etc.) with which it is possible to promote functional capacity and prevent frailty using different channels
- pre-existing recommendations (nutrition, exercise, medication etc.) and Advantage's results will be disseminated
  - using several different channels of communication. Examples of communication channels include web pages, social media platforms, blogs, research publications and different projects. A national seminar is a possibility.
- Finland is committed to promote the Decade of Healthy Ageing from 2020 to 2030 especially during the Presidency of the Council of the European Union.
- Implementation of
  - Finger model: the Finnish Geriatric intervention study to prevent cognitive impairment and disability, (healthy diet, physical activity, cognitive training) https://thl.fi/en/web/thlfi-en/research-and-expertwork/projects-and-programmes/finger-research-project
  - the activities of the Strength in Old Age program by The Age Institute (good practices for older people´s health exercise). https://www.voimaavanhuuteen.fi/en/abstracts-and-posters/the-strength-in-old-age-programme-promotes-active-ageing/
- Strengthening the use of third sector activities developed for promotion of health and wellbeing

4. Population surveillance, screening and early diagnosis

1. **The aim is to evaluate if it is possible to create Current Care Guidelines for frailty**. The 2020-24 plan:
   - to find studies that show evidence-based effectiveness of frailty prevention and/or management interventions
   - to search and promote funding for frailty research and intervention studies
   - to create consensus at national level how to define frailty
   - to evaluate possibility and need for creating the Current Care Guidelines
2. **Personnel of the social and health services are able to recognize risk groups and will be able to prevent and treat frailty. The incidence and prevalence of frailty will be monitored**

TOOLS and ACTIVITIES

- to maintain national Advantage stakeholder group as a supporting expert group that could e.g. attend seminars, working groups
- evaluation of the use of interRAI assessment system for recognition and follow-up of frailty
- promoting screening and early diagnosis of frailty by spreading knowledge of the results and recommendations of Advantage
- promoting implementation of Frailty Index (in Finnish) as soon as it has been evaluated and accepted by the national TOIMIA (Functioning Measures Database) network https://thl.fi/en/web/functioning/toimia-functioning-measures-database
- promoting gathering of information of frailty (e.g. prevalence, incidence) in existing information systems and registers as well as in population studies

5. Appropriate evaluation and interventions

1. **Based on Elderly Care Act, the person's needs for assistance and services have to be evaluated using validated and tested instrument(s), taking into account all the aspects of functional capacity (physical, psychological, social and cognitive)**

TOOLS and ACTIVITIES

- use of CGA as the main tool to assess frail people in all settings to develop individual care plans.

2. **The aim of the Finnish aging policy is to promote older people's functional capacity**

TOOLS and ACTIVITIES

- strengthening the use of guidelines (polypharmacy, physical activity, nutrition, immunization, falls prevention, etc.)

6. Establish and continually improve an integrated model of care to completely address frailty

In Finland an integrated model of care has been developed (see case study 6):

TOOLS and ACTIVITIES for enhance its implementation

- the national stakeholder group, other health and social care experts and bodies will be used to disseminate and implement good practices
  - examples of communication channels include web pages, social media platforms, blogs, research publications, seminars
- planning of new solutions and operational models
- national programmes, pilots
- developing and improving shared database
- cooperation with Universities, research organisations, health and social care providers, directors and staff

7. Ensure a sustainable and appropriately trained workforce (education & training)

1. **The recognition, diagnosis, prevention and treatment of frailty is a part of the basic and postgraduate training of social and health services personnel**

TOOLS and ACTIVITIES

- evaluate possibility to create a web course/in-service training package to strengthen knowledge of advancement of functional capacity and prevention of frailty
- promote cooperation with The Ministry of Education and Culture, universities, universities of applied science and other educational organisations and Finnish Medical Association

8. Strengthen research capacities on frailty

1. **Improvement of functional capacity and prevention of frailty will be made an important thematic area in national research programmes (including funding)**

TOOLS and ACTIVITIES

- deepening of cooperation with research facilities and funding organisations (Universities, the Academy of Finland etc.)
  - actively disseminating Advantage's results and recommendations to high-level decision makers, healthcare providers, professionals and scientific bodies and funding organisations
- using several different channels of communication. Examples of communication channels include web pages, social media platforms, blogs, research publications and different projects. A national seminar is a possibility.
- designing a joint research project and coordinating the application of funds, international research cooperation

9. Implementation support (finance, data sharing and ICTs)

TOOLS and ACTIVITIES

- the development of national shared electronic information systems continued (Kanta, Apotti).
  - Kanta produces digital services for the social welfare and healthcare sector. https://www.kanta.fi/en/about-kanta-services
  - Apotti is a project that is the first in the world to create an information system that combines social and health care services. https://www.apotti.fi/en/
- supporting and encouraging use of ICT solutions to address frailty.

10. Monitoring quality and evaluating value/cost-effectiveness

TOOLS and ACTIVITIES

- Based on legislation, the older people have to receive care and treatment according to their individual needs and on an equal basis nationwide through high-quality social welfare and health care services; the decision-making body responsible for social welfare and health care in the municipality/region must annually evaluate the adequacy and quality of social and health care services; care unit must engage in self-monitoring (draw up a plan) in order to maintain and further develop the quality of their services; feedback on quality of services must be collected regularly from service users and their family members and staff.
- The Ministry of Social Affairs and Health monitors service standards with the National Supervisory Authority for Welfare and Health and the Regional State Administrative Agencies
- The Ministry of Social Affairs and Health and the Association of Finnish Local and Regional Authorities have published quality recommendations for services for older people. Recommendations will be updated in 2019.

FRANCE

Leader: The French MoH (Directorate for Health).

Stakeholders involved in the development of this Road-map: Other directorates of the MoH and the National Public Agency (Santé publique France).

Is the roadmap supported by the Ministry of Health?: YES.

ACTIVITIES
1. Awareness and stakeholders engagement including older people empowerment
Continuation and further development of the set of public information accessible from the national web portal for older people (https://www.pour-les-personnes-agees.gouv.fr/) and referring to the website on healthy ageing (http://www.pourbienvieillir.fr/). Continuation of the activities of the National council for older people. New strategy in development by the French public health agency (Santé Publique France) to promote healthy ageing as early as from mid life, including from a dedicated web portal.
2. Commitment to action on frailty (Policy alignment)
Work to a strategy for frailty prevention and promotion of healthy ageing related to a law "Great age and autonomy".
3. Promotion of healthy ageing and frailty prevention
Health visits focused on a multidimensional preventive approach and an educational intervention at the age of retirement (new measure of the National prevention plan) (2019); Launch and promotion of the new service offer (2020); First evaluation (2022). Prevention of disability linked to hospitalization: Proposals of the national concertation for the seniors' autonomy to be discussed (new mobile geriatric teams, geriatric hotline and telemedecine, direct admissions, professional practices on prevention…). Continuation and improvement of the local prevention offer by the pension funds and the regional programs ("funds conferences"). Development of prevention in nursing homes (financing schemes that include activities on prevention). Age-friendly communities deployment support to be explored. Promoting the offer of adapted physical activity for the older people through the National Strategy for Sport and Health and the 2024 Olympic Games. Housing adaptation plan for low-income pensioners.
4. Population surveillance, screening and early diagnosis
Consolidation of prevalence assessment based on the administrative data and database comparison: design of a frailty/dependence index in administrative data using survey data as a gold standard (2020); production of frailty prevalence using administrative data by gender and age-groups and by territories (2021). Study of frail subjects' prognosis: study of the hospitalisation risk (number and duration of stay), re-hospitalisation, dependence and mortality according to frailty status and study of the impact of frailty on sequel at one year following a fall in senior population (2022); Study of specific causes for hospitalisation (falls, repeated falls, dementia…) and of the link between frailty and chronic diseases (2023). Improvement of individual screening with the support of the observatories on frailty: experiment of queries by the Languedoc-Roussillon pension fund (2020).

5. Appropiate evaluation and interventions
Dissemination of tools for prescribing adapted physical activity for older people: publication of specific guidelines for the older people.
Dissemination of new recommendations on nutritional needs of the older people.
Identification and management of undernutrition in community-living older people (implementation to be detailed).
Supporting health professionals for reducing prescriptions of drugs.
Revision of the program for falls prevention (2019).
Continuation and improvement of the local prevention service offer by the pension funds and the departmental programs ("funds conferences"): optimization of the resources of the "funds conferences" using steering tools and by ensuring effective preventive actions.
Project to spread the comprehensive geriatric assessment practice in nursing homes.
6. Establish and continually improve a integrated model of care to completely address frailty
Final evaluation of the PAERPA experiment (pathway for people at risk of losing their autonomy) (2019-2020).
Implementation of the advanced practice for nurses: new system implementation (2020); first trained nurses (2021).
Progress towards harmonized care coordination systems on the whole territory: proposition of the draft bill for care organization.
Project of mutual recognition of older people's needs assessment conducted by pensions funds and by county councils teams.
7. Ensure a sustainable and appropriately trained workforce (education & training)
Primary care professionals training on autonomy loss prevention in older people: integration of the topic in the new National Training Program for health professionals.
Hospital staff training: Pluri annual action of the National Program for adapted care of older people
Project of a certifying training curriculum for health and social staff working with older people.
Education of social workers and home carers: to be included in a new plan for careers with older people.
8. Strengthen research capacities on frailty
Upcoming situational analysis and prospects in the context of drafting a new law for older people
Use of the CONSTANCES cohort.
9. Implementation support (finance, data sharing and ICTs)
Telemedecine deployment fostered by the bill for care organizations.
Dissemination of electronic tools provided by the PAERPA experiment.
10. Monitoring quality and evaluating value/cost-effectiveness
Final evaluation of the PAERPA experiment (2020).
Dissemination of validated or more conclusive intervention models on prevention: Creation of a 'What Work' Centre for prevention actions (subject to a more defined project at this time).

GERMANY

Leader: Prof. Dr. med. Ulrike Junius-Walker

Stakeholders involved in the development of this Road-map: Dipl math. Birgitt Wiese, Dr. med Rolf Stegemann, for comments: Dr. med. Ute Schwartz

Is the roadmap supported by the Ministry of Health?: NO. The Ministry of Health has discussed the German Roadmap. It requires a broad consensus from different stakeholders beforehand in order to actively support it.

Key factors to ensure the success of its implementation:

- Support the Health Ministry
- Support of representatives of different health professional organisations
- Development of the conceptual recommendations into feasible implementation activities

ACTIVITIES
1. Awareness and stakeholders engagement including older people empowerment
Start and expand a public awareness campaign to increase knowledge of frailty
Involve key stakeholders from relevant sectors to collectively discuss frailty and its relevance in the different sectors of life (health, living environment, social participation and engagement)
Collate local/regional best practice examples on how to support people with frailty
2. Commitment to action on frailty (Policy alignment)
Promote a debate in professional health societies on what their role in relation to frailty is
Set up an interdisciplinary working group on organising prevention and care strategies for frailty
Make frailty a health target in health politics
3. Promotion of healthy ageing and frailty prevention
Collate information on the current state of preventive activities and practical environmental support for older people in Germany including examples of best practice (e.g. survey).
Create awareness of the necessity to define a set of criteria with minimum standards of age friendly environments and the availability of preventive services for communities
Disseminate available information to the public (communities and direct users) about the benefit and possibilities to engage in preventive activities in older age
Continue to promote and expand the provision of local health promotion and prevention services in different settings and for individuals
Target medical professionals, nursing, pharmacy, physiotherapy and medical organisations: Collate/develop multiprofessional guidelines on the promotion of health and prevention of frailty
4. Population surveillance, screening and early diagnosis
Generate information on the epidemiology of frailty (predictors, prevalence, incidence, status changes, trajectories)
Create evidence concerning the heterogeneity of frailty according to regions and other determinants in order to develop risk stratification strategies
Every older patient should receive the offer of being assessed for (the risk of) frailty

5. Appropiate evaluation and interventions

Consider a frailty guideline on the detection and management of frailty including polypharmacy, physical activities, nutrition, falls, immunisations and supportive and coordinative care

Consider short screening tools for GPs to facilitate detection of frailty

Give more detail to the geriatric assessment in general practice (EBM 03360) and include tools targeted to the group of vulnerable older people in primary care

Incentivise GPs and helpers: a more detailed EBM "management of the geriatric patient" (EBM 03362) may enhance the quality of care

Establish a pathway of accessible primary rehabilitative services for frail people (rehabilitation before nursing care) and evaluate

Local communities could provide information on how and where to access services for people with (the risk of) frailty

6. Establish and continually improve a integrated model of care to completely address frailty

Identify and evaluate specific integrated care approaches/ measures for (frail) older patients

Create a list of relevant stakeholders who are able to promote integration across Germany building on their experience, scientific, legal and practical competences as well as their political weight

Expand the work of integrated care acticities in bringing in the special problems of frail people

Initiatives need a local community base with start up finances

Establish incentives and remove barriers to better co-operate between medical professions and sectors using regulations and payments (GBA)

7. Ensure a sustainable and appropriately trained workforce (education & training)

Frailty should be a part of under- and postgraduate training for health professionals dealing with older people

Each profession could work out core capabilities necessary to fulfil the specific health and social care roles for frail older people

Offer interdisciplinary education and training

8. Strengthen research capacities on frailty

Bring researchers on frailty together across sectors to facilitate the development of multidisciplinary research networks

Make frailty a special research agenda in Germany

Research is needed on the health care needs and care experiences of frail older people and their health care providers

More health care research (detection, prevention, rehabilitation and care strategies, integration of services, cost-effectiveness) for people (at risk of) frailty in the German setting

Develop evidence based guidelines for health care professionals on how to prevent, treat and care for people (at risk of) frailty

9. Implementation support (finance, data sharing and ICTs)

Consider frailty as a relevant diagnosis in the electronic patient files

Consider frailty as a payment parameter adjusting for extra personal resources necessary to set treatment priorities and to align different health care provisions according to the individual needs of the patients

10. Monitoring quality and evaluating value/cost-effectiveness

Identify targets that should become part of a frailty health care concept

Identify quality and cost indicators that would be useful to evaluate specific care provided for frail people

GREECE

Leader: Joint task between the partners of the JA and the Hellenic Ministry of Health.

Stakeholders involved in the development of this Road-map: Accademia, Medical community, Social Workers advocacy groups, psychologists associations, Physical therapists teams and scientific communities, public administration employees.

Is the roadmap supported by the Ministry of Health?: YES

Key factors to ensure the success of its implementation.

- Involvement of the public administration from the very begging
- Support from the Ministry of Health
- Realization of an Action Plan to ensure it's implementation

ACTIVITIES	
1. Awareness and stakeholders engagement including older people empowerment	
1.1.	In order to engage more stakeholders a key axis for disseminating the content of frailty at various levels of public policies and interventions is "maintaining function" and "preserving autonomy.
1.2.	Raise awareness of key actors and services that play a key role in shaping policies and making decisions to disseminate information to Administrations and society.
1.3.	Proposal for the establishment of a Working Group with the collaboration of the Alumni Association of the National School of Public Administration and Government, for the elaboration of a comprehensive Action Plan on "Frailty and Public Policies (based on the principles and proposals of the Joint Action") (public administration officials).
1.4.	Organization of seminars and workshops to raise awareness with the collaboration of various scientific bodies on issues related to frailty, aiming at mobilizing public opinion, services and organizations.
1.5.	Organization of actions and interventions to inform older people, families and local authorities about frailty through traditional ways (such as radio and television).
2. Commitment to action on frailty (Policy alignment)	
2.1.	Proposal for the creation of a General Secretariat or a General Directory for Older People, that will involve more than one ministry and will create a National Observatory for older people policies.
2.2.	WHO concept of Frailty with inclusion of social and psychological components of frailty.
2.3.	Developing a Guide with basic principles and guidelines addressed to journalists and cultural development executives setting the framework for an adequate and ethically correct management of frailty.
2.4.	Collaboration with Scientific Societies to submit a request to the Health Ministry in the framework of the Committee on the Monitoring of Pharmaceutical Expenses, the Completion of Diagnostic / Therapeutic Protocols and the Establishment of Patient Registers. To set up a working group for the development of diagnostic and therapeutic protocols of frailty to be used within the EOPYY (national health insurance) (prescription - diagnosis).
2.5.	Submission of a proposal to the Ministry of Health to form Diagnosis Related Group (DRG) (for frailty and its Management in Hospitality Care).
3. Promotion of healthy ageing and frailty prevention	
3.1.	Collaboration to harness the approved by the Ministry of Health Nutrition Guide for frail elder people, with the Ministry of Labor, Social Security and Social Solidarity, for its dissemination to older people in the community.

3.2. Collaborate with EOF (National drug Organization) and EOPYY (national Insurance Body) administrations to develop a list of drugs and preparations with a negative sign that will be the basis for informing doctors in prescribing.

3.3. Development and implementation of prevention programs in the framework of Primary Care (PC) with the cooperation of public and private structures of health services and care in the local community.

3.4. Detection and exploitation of good practices related to frailty developed by various actors, aiming at their dissemination to the local community.

4. Population surveillance, screening and early diagnosis

4.1. Detection and validation of screening and early diagnosis tools that can be used in the day-to-day action based on the documented proposals of the Joint Action. Adaptation of tools for the needs of the PC.

4.2. Utilization of the National Questionnaire for the Health Survey of the Hellenic Republic conducted by Hellenic Statistical Authority (ELSTAT) (and at European level by Eurostat) in order to study the prevalence of frailty in Greece.

In order to implement this proposal, it is proposed to cooperate with ELSTAT in order to use similar questions that in the future can provide the elements that are necessary for the formation of a documented image of frailty in Greece.

5. Appropiate evaluation and interventions

6. Establish and continually improve a integrated model of care to completely address frailty

6.1. Use the Pilot Integrated Care program in Ioannina to introduce frailty. (RESHAPING THE BALANCE OF CARE IN GREECE, Follow-up Report, Action Plan for the Integration of Primary Health Care and Community Care Services in Ioannina)

6.2. Enhance human resources to support out-of-hospital care and community care services in the Community for managing frailty in older persons

6.3. Collaboration and utilization of interventions with the Intercultural Network of Healthy Cities.

7. Ensure a sustainable and appropriately trained workforce (education & training)

7.1. Submission of proposals to Public Health Schools to undertake undergraduate and postgraduate studies in order to map the curriculum in health, social care and other scientific fields for frailty.

7.2. Organization of postgraduate programs in geriatrics and gerontology.

7.3. Organization of seminars and training programs aimed at medical doctors and health professionals with the endorsement of the Ministry of Health in order to provide certified knowledge and training on relevant issues.

7.4. Making Massive Open Online Courses (MOOCs) with a small financial burden on participants, to be created by a team of specialists.

7.5. Promotion to KESY (Central Health Council) of a request for the recognition and establishment of specialization or sub-specialization in Geriatrics as well as promotion in social sciences and humanities sciences specializing in gerontology.

7.6. Proposal for specialization in Exercise for Older People in the Physical Education and Sports Academy.

7.7. Utilization of the role of social counselor (in the context of public health and social care services) to educate and supervise locally issues related to the provision of frailty services.

8. Strengthen research capacities on frailty	
8.1.	Establish of an Interdisciplinary Working Group to Promote Research on Frailty, consisting of representatives of the research community as well as representatives of Joint Action to submit research proposals on 6 axes (early diagnosis, prevention, management at the individual level, screening at the population level, integrated health and social care systems, education) to ensure adequate resources.
9. Implementation support (finance, data sharing and ICTs)	
9.1.	Utilization of private sector resources to develop programs and interventions - sponsorships from charities.
9.2.	Utilization of Public Health Regional Operational Programs and provision of resources for interventions that promote the management of frailty.
10. Monitoring quality and evaluating value/cost-effectiveness	

HUNGARY

Leader: Péter Csizmadia

Stakeholders involved in the development of this Road-map: National Public Health Center, Ministry of Human Capacity, Hungarian Association of Gerontology and Geriatrics (HAGG)

Is the roadmap supported by the Ministry of Health (Ministry of Human Capacity)?: Yes

Key factors to ensure the success of its implementation: Governmental support (not only financial).

ACTIVITIES
1. Awareness and stakeholders engagement including older people empowerment
2. Commitment to action on frailty (Policy alignment)
Supporting the Healthy Ageing, Hungarian Operational Programme, funded by European Social Funds, planning phase.
3. Promotion of healthy ageing and frailty prevention
Network of Walking Clubs of the Older People. continuous promotion to raise the number of clubs nation-wide and the number of regular participants. Network of Alzheimer Cafés (AC): continuous promotion to raise the number of locations where ACs are held. Digital Program of Well-Being (DPW), Model Program for Older People: continuous promotion to raise the number of DPW centres and the number of DPW mentors. Older People consultant-training. Training of 1000 older people consultants by 2021. Senior-Friendly Municipality Award: continuous calls for proposal.
4. Population surveillance, screening and early diagnosis
5. Appropiate evaluation and interventions
6. Establish and continually improve a integrated model of care to completely address frailty
7. Ensure a sustainable and appropriately trained workforce (education & training)
8. Strengthen research capacities on frailty
9. Implementation support (finance, data sharing and ICTs)
10. Monitoring quality and evaluating value/cost-effectiveness

IRELAND

Leader: Dr Siobhán Kennelly, National Clinical Advisory Group Lead Older Persons, HSE, Ireland.

Stakeholders involved in the development of this Road-map: Dept. of Health, HSE, National Clinical Programme Older Persons, National Integrated Care Programme Older Persons & affiliates.

Is the roadmap supported by the Ministry of Health?: Yes

Key factors to ensure the success of its implementation: Programme for work on frailty included in HSE, National Service Plan 2020, scaling up of national integrated care programme for older persons through SlainteCare, development of appropriate monitoring and data tools to support implementation

ACTIVITIES
1.- Awareness and stakeholders engagement including older persons empowerment
Awareness campaign to increase knowledge about ageing, ageism and frailty /Involve key stakeholders from relevant sectors; intersectorial working group on ageing and frailty that includes older people and caregivers.
2.- Commitment to action on frailty (Policy alignment)
Develop a Strategy on Ageing that includes frailty using the WHO concept (2015)/ Alignment of previous or other strategies or plans with frailty (using WHO concept, 2015)/ Create a department of Healthy Ageing or Health program for Older People (OP).
3.- Promotion of healthy ageing and frailty prevention
Implementation of population based approaches to promote healthy ageing and prevent or mitigate frailty- Age friendly Cities (AFC)/ Guidelines to prevent frailty/promote healthy ageing.
4.- Population surveillance, screening and early diagnosis
Evaluation of frailty on a national/regional survey/study/ Adoption of risk stratification strategies based on a sound epidemiological picture of frailty/ Frailty observatories/registries/ Systematic and periodical early detection (case finding/screening).
5.- Apropiarte evaluation and interventions
Use of Comprehensive Geriatric Assessment in all settings to develop a multi-disciplinary co-ordinated plan of care for the individual living with frailty/Develop guidelines in specific aspects of frailty: polypharmacy, physical activity, nutrition programs, falls and immunization. Guidelines to manage frailty (early detection and management).
6.- Establish and continually improve an integrated model of care to completely address frailty
National/Regional recommendations aligned with the SoAR, to improve the model of care for older people/. Evaluate and improve ongoing programs for older people, scale-up the ones with positive results & pilot new programs of integrated care for frail patients based on the ADVANTAGE SoAR recommendations.
7.- Ensure a sustainable and appropriately trained workforce (education & training)
Include FPA recommendations about core capabilities in undergraduate, postgraduate and continuum curricula in all health and social disciplines.

8.-Strenghten research capacities on frailty
Facilitate the creation of multidisciplinary research networks/ Facilitate the cooperation of national research groups with foreign ones/ Ensure research calls on frailty covering national cohorts follow-up, efficiency testing of interventions to avoid and managing frailty and creation of biobanks to study biomarkers of frailty.
9.- Implementation support (finance, data sharing and ICTs)
Develop shared electronic information to enhance integrated care. / ICT solutions to address frailty/ Continuous education using ICT/ Finance support to research: Strengthen coherence between different Ministries with MoH investments. Other partners: Industry/ Specific finance support to go ahead with the frailty approach implementation.
10.- Monitoring quality and evaluating value/cost-effectiveness
Include frailty on the Health targets/ use indicators to support those responsible for delivering strategies to improve Health and wellbeing of Older People.

ITALY

Leader: Marche Region.

Stakeholders involved in the development of this Road-map: All Italian JA partners and affiliated entities.

Is the roadmap supported by the Ministry of Health?: YES.

Key factors to ensure the success of its implementation: Establish a Department/Task Force in charge of supporting and aligning all central actors involved in the promotion of Healthy Ageing at national level in order to develop an integrated and comprehensive program to improve and align health, social, research and innovation policies, and allowing joint and coherent planning of public health measures and allocation of resources from an "health in all policies" point of view

ACTIVITIES
1. Awareness and stakeholders engagement including older people empowerment
Engage relevant key stakeholders and actors (including older persons, their Associations and the caregivers), in designing, planning, developing, implementing and assessing care and cure on ageing and frailty. Involve key policy/decision makers, citizens, professionals and scientific societies in awareness campaigns (including dissemination of the JA ADVANTAGE results, eg: Face up to Frailty Campaign), to increase responsiveness and to promote policy dialogues at all levels (also through the ProMIS network), taking into account ageing, ageism and frailty concepts.
2. Commitment to action on frailty (Policy alignment)
Set up a Department/Task Force in charge of supporting and aligning all central actors involved in the promotion of Active and Healthy Ageing at national level with a multi-stakeholder approach (Ministry of Health, Ministry of Labour and Social Policies, Ministry of Education-MI, Ministry of University and Research-MIUR) in order to develop an integrated and comprehensive program, including health, social, research and innovation policies, allowing joint and coherent planning and allocation of resources. Develop and align policies and strategies on frailty and integrated care reflecting the most recent WHO concepts and guidelines and scaling up results of relevant EU initiatives and national programmes (such as National Chronicity, Prevention and Dementia Plans) to prevent and manage frailty and chronic diseases. Support a large scale pilot of integrated health and social care addressed to frailty assessment, prevention and management in various settings, including community, primary and hospital care.
3. Promotion of healthy ageing and frailty prevention
Develop promotional and self-support activities, to increase older persons' awareness on the need to adopt healthy lifestyles and risk reduction strategies, in a life course perspective, which help them to maintain their independence. Implement preventive activities for pre-frail and frail older persons on lifestyles and risk factors (physical activity, correct nutrition, reduction in tobacco and alcohol use, cognitive stimulation, co-housing and social support).
4. Epidemiologic monitoring, Population surveillance, screening and early diagnosis
Promote the periodic epidemiologic follow-up of the major Italian cohorts of older people (e.g. ILSA, InChianti, etc.), in order to sustainably provide accurate and comparable estimates of the frequency and progression of frailty over time, essential to inform resource planning and evaluate the effectiveness of prevention and management programmes.

Promote the longitudinal investigation of the relationships between frailty and the major health and socioeconomic factors potentially involved in the development of new cases and in the progression of existing ones, in order to identify priority areas for preventive and management actions. This could be obtained through population surveys, also taking advantage of ICT tools for self-monitoring that are supported by empowerment of older adults, and the analysis of biobanks to find biomarkers of frailty.

Strengthen the design and extend the implementation of the available population based approaches of surveillance, screening and early diagnosis of frailty (e.g. Health Examination Survey (HES), Passi Argento (PDA), with new validated tools, such as SUNFRAIL, etc.), aligning them to the most recent WHO concepts and guidelines, in order to pilot, scale up and evaluate the effectiveness and feasibility of a national public health programme on ageing, frailty and complex conditions.

Further adoption of Risk Stratification strategies by Regions based on a sound comparable epidemiological picture of frailty.

Perform opportunistic or systematic screening of frailty and its risk factors (eg: Bio-Psychosocial Model), with the use of validated tools (e.g. Sunfrail tools, others indicated by the FPA), in primary care, community and hospital settings with the involvement of Physicians and other professionals (eg: nurses, social workers, pharmacists, geriatricians, others).

5. Appropriate evaluation and interventions

Confirm frailty diagnosis and evaluate related determinants (risk and protective factors) and subjective needs through Comprehensive geriatric assessment (CGA) in order to orient care and provide a personalized plan.

Implement the management of frail people in hospital settings by promoting the scale-up of the Silver Code.

Develop guidelines for early detection, prevention and management of frailty in older persons (incl. polypharmacy, multimorbidity, nutrition, falls and balance, physical activity, immunization) in all care settings, applying an integrated health and social care approach.

6. Establish and continually improve an integrated model of care to completely address frailty

Develop national and regional recommendations to adopt an integrated model of care targeting frailty and complex conditions in older persons based on existent ongoing programmes and plans. Scale up the initiatives with positive results, such as Sunfrail.

Enhance integration through intersectoral collaboration (incl. Health and social sectors), and joint planning of activities and resources at all levels.

7. Ensure a sustainable and appropriately trained workforce (education & training)

Build on the educational model and tools on human resources developed with the Sunfrail project or other relevant initiatives in all care settings.

Further define training needs of healthcare professionals in all settings to recognise frailty in older adult, to prevent and manage frailty and complex conditions by adopting innovative approaches based on multidisciplinary and multi-sectoral interventions.

8. Strengthen research capacities on frailty

Liaise with the EU and National Managing Authorities (Ministry of Health-MoH, Ministry of Education-MI, Ministry of University and Research-MIUR, Structural Funds Managing Authorities) to ensure that frailty, multimorbidity and integrated care for older persons are addressed by investments on research, innovation, and capacity building.

Facilitate the creation of multidisciplinary and extended research networks, taking advantage of well-established consortia, partnerships and other valuable experiences.

Ensure research funding opportunities aimed at:

1. innovative approaches to frailty prevention and management;

2. follow-up of population-based cohorts of subjects to study the longitudinal pathways leading to frailty and to its progression over time;
3. creation of biobanks (and management of existing ones) to find potential biomarkers of frailty and frailty risk factors;
4. piloting and assessing the societal, health and economic impact of public health interventions.

9. Implementation support (finance, data sharing and ICTs)

Develop programmes and plans on frailty and complex conditions foreseeing intersectoral collaboration and shared allocation of resources (financial, human), in synergy with the existent National Chronicity and Prevention Plans.

Develop shared electronic information tools and technologies to enable care solutions for frailty identification, management, self-support and continuous education.

10. Monitoring quality and evaluating value/cost-effectiveness

Evaluate outcomes of interventions and public health measures in all settings (impact evaluation), in terms of older people and caregivers quality of life and risk reduction through predefined indicators such as hospitalization, institutionalization, utilization of preventive and curative pathways (PAI), health-care costs, service self-satisfaction, etc.

LITHUANIA

Leader: JŪRATĖ MACIJAUSKIENĖ

Stakeholders involved in the development of this Road-map:

- Ministry of Health of The Republic of Lithuania
- Republic of Lithuania Ministry of Social Security and Labour
- National Public Health Center under the Ministry of Health
- Lithuanian Public Health Bureaus
- Lithuanian Association of Gerontology and Geriatrics
- Lithuanian Heart Association
- The Society of Physicians of the Physical Medicine and Rehabilitologists
- Media (SJC Lietuvos rytas, www.lrytas.lt; SJC Diena Media News, www.kaunodiena.lt; SJC Delfi, www.delfi.lt; SJC Portus medicus, www.vlmedicina.lt).

Is the roadmap supported by the Ministry of Health?: YES (the first draft was discussed in the meeting with other stakeholders; the second, final, version now is in the process – the document was sent to the Ministry. We plan one more meeting when the FPA document will be translated into Lithuanian language)

Key factors to ensure the success of its implementation:

1. Active dissemination of information about older adults, healthy ageing, syndrom of frailty, and promoting physical activity and healthy nutrition in all age groups in collaboration with the stakeholders.
2. Use of frailty screening tools timely to detect frailty.
3. Promote research on frailty.

ACTIVITIES
1. Awareness and stakeholders engagement including older people empowerment
Rising awareness of older adults, frailty and healthy ageing: • In co-operation with the government and politicians organizing a "Healthy Day" conference • Writing articles, preparation of booklets, participation in TV shows, organization of conferences • Celebrating Frailty-free Day Engagement with professional associations: • Partnership with professional organizations via conferences and meetings • Partnership with professional organizations with the possibilities for the joint projects
2. Commitment to action on frailty (Policy alignment)
Communication with policymakers and government officials: • Discussions on implementation of community-based health promotion and frailty prevention programmes • Support of frailty policies in governmental discussions Defining frailty as a national priority in the health plan Develop a Strategy on Ageing that includes frailty using the WHO concept (2015)
3. Promotion of healthy ageing and frailty prevention
Promoting physical activity and healthy nutrition in all age groups • Preparation and delivery of the lectures on physical activity and healthy nutrition Frailty Prevention Approach • Translation of the Frailty Prevention Approach (FPA) into Lithuanian and dissemination of it

4. Population surveillance, screening and early diagnosis

Frailty screening tool:

- Selection and validation of frailty screening tool
- Preparation of questionnaire methodology, training of healthcare specialists
- Using questionnaire in primary health care and public health services

Systematic and periodical early frailty detection: development of systems in primary care:

- Approval of the Ministry of Health of the frailty methodology and management
- Creation of frailty screening algorithm
- Performance of comprehensive geriatric assessment

5. Appropriate evaluation and interventions

Systematic and periodical frailty detection: development of systems in primary care and in hospital settings:

- Guidelines to manage frailty (early detection and management) at the individual level
- Use CGA as the main tool to assess frail people in all settings in order to develop an individual care plan
- Use guidelines in specific management aspects: polypharmacy, physical activity, nutrition programmes, falls, immunization
- Provide special care for older people in hospitals

6. -Guidelines to manage frailty (early detection and management): Primary care and general hospital care as well as specialised hospital care (surgery, cardiac intervention, oncology).

Creating a health program for older adults:

- Creating a health program involving physical activity and nutrition in collaboration with the MoH, Health education and disease prevention center
- Ensuring that health program is accessible to persons
- Inclusion and training of healthcare and public health specialists.
- Implementation of the program across the country

Close cooperation with primary care:

- Discussions with primary care providers about frailty
- Including frailty concept into primary care

Reduce the risk of falls:

- Monitoring and education of patients at risk
- Advices for environment adaptation

Development of geriatric care services:

- Implementation of Comprehensive Geriatric Assessment (CGA)
- Guiding the patients with multimorbidity

Integrated care model – ensuring coordination of health and social care

Set up a robust monitoring system for frailty:

- Developing the monitoring principles
- Implementing the monitoring

Coordinate healthcare, social services and community in order to guarantee appropriate management of frailty.

7. Ensure a sustainable and appropriately trained workforce (education & training)

Under & postgraduate level education:

- To encourage the inclusion of the frailty in medical, nursing, physiotherapy, occupational therapy, social work studies
- Inclusion of frailty topic into family medicine curriculum residency program
- Inclusion of frailty topic into other residency programs

Continuous education

- Planning conferences and presenting up-to-date information about frailty
- Training healthcare specialists how to identify and manage frailty
- Organizing of qualification courses about frailty for healthcare and social care specialist

Interprofessional training to improve health professionals' awareness

- Publications about frailty
- Preparing the interprofessional course on frailty in continuous medical education

Include FPA in training courses of healthcare specialists

8. Strengthen research capacities on frailty

Research in academic institutions:

- To promote research on frailty in older adults
- Involve doctoral and postgraduate students in research and projects on frailty

Participation in research conferences internationally

- Submitting the abstracts for the conferences

Co-operation with the Research Council of Lithuania

- Projects preparation

Develop group of frailty experts for research

9. Implementation support (finance, data sharing and ICTs)

Increasing funding for programs for older adults:

- In partnership with policymakers and government officials search for better financing of the programmes for older adults

Create online platform to share resources, guidelines, recommendations, best practices, etc.:

- Establishing the work group for feasibility study

10. Monitoring quality and evaluating value/cost-effectiveness

Monitor the implementation of this Road Map:

- Develop indicators in order to monitor the implementation of this Road Map
- Use indicators to improve health

Use indicators to support those responsible for delivering strategies to improve health and wellbeing of old people

MALTA

Leader: Members of the Frailty Working Group, chaired by Dr Josianne Cutajar, CEO SVPR

Stakeholders: Department of Active Ageing, MFSC, Clinicians and the Department of Gerontology, University of Malta.

Is the roadmap supported by the Ministry of Health?: Ministry for Family, Childrens' rights and Social Solidarity- the Department for the Care of the Older People is part of this Ministry.

Key factors to ensure the success of implementation: the Department of Active Ageing showed its commitment to adopt the frailty awareness and management process as part of its policies after being updated with the Frailty Prevention Approach. The department will ensure the realization of the planned work accordingly.

ACTIVITIES
1. Awareness and stakeholders engagement including older people empowerment
Awareness campaign to increase knowledge about ageing, ageism and frailty. This will be done after the initial phase of studying the size of the condition and drafting a national policy. A dialogue will be established to create a network of stakeholders through the frailty working group members. These stakeholders will be from different sectors. The creation of intersectoral working groups will be done as needed. The Media with all its forms will constitute a major workforce in the process. The department of active ageing is a main stakeholder in this process.
2. Commitment to action on frailty (Policy alignment)
Develop a Strategy on Ageing that includes frailty using the WHO concept (2015). Alignment of previous/other strategies or plans with frailty (using WHO concept, 2015). Supporting and developing the services through the department of active ageing including services that are addressed specifically to frailty management.
3. Promotion of healthy ageing and frailty prevention
The creation of central frailty management unit at St. Vincent de Paule Facility. The Creation of proper referral system. The dissemination of healthy ageing materials/ talks through different stakeholders' facilities including the department of active ageing. The inclusion of Frailty in the department of active ageing policy. Implementation of population-based approaches. Guidelines to prevent frailty/promote healthy ageing. Working with local organisations supporting the older people e.g. the national council for the older people.

4. Population surveillance, screening and early diagnosis

Prevalence study: Piloting at Karen Grech Hospital using two level screening tools, then a general study will be planned after agreement with various stakeholders e.g. Primary care.

Adoption of risk stratification strategies based on a sound epidemiological picture of frailty.

Frailty observatories/registries can be created.

Systematic and periodical early detection (case finding/screening): different health professional will be offered regular updates and educational materials.

The central frailty management unit at SVP is a main stakeholder in this process.

5. Appropriate evaluation and interventions

Use of CGA as main tool to assess frail People in all setting on order to develop an individual care plan.

Develop guidelines in specific management aspects:

- Polypharmacy
- Physical activity
- Nutrition programs
- Falls
- Immunization

Guidelines to manage frailty (early detection and management).

The development of multidisciplinary frailty management model which can be extended beyond the geriatric facilities to include the acute hospital.

The central frailty management unit at SVP is a main stakeholder in this process.

6. Establish and continually improve an integrated model of care to completely address frailty

National/Regional recommendations aligned with the SoAR, to improve the model of care for older people.

Evaluate and improve ongoing programs for older people, scale-up that ones with positive results & pilot new programs of integrated care for frail patients based on the ADVANTAGE SoAr recommendations.

Involving the primary care sector in both Frailty prevention initiatives and Frailty management programmes.

7. Ensure a sustainable and appropriately trained workforce (education & training)

Aiming at undergraduate training on frailty in medicine, nursing, social work and allied health faculties. It should be based on evidence on efficacy, effectiveness and sustainability of training programs and its contents made available transparently to the public.

Postgraduate training curricula of all professionals involved into the prevention and management of frailty be re-evaluated. A clear postgraduate level career ladder for all professionals involved in the care of older people could be designed.

The above plan will Include the FPA *recommendations of core capabilities* in undergraduate, postgraduate and continuum curricula in all Health and social disciplines.

8. Strengthen research capacities on frailty

The Frailty working group with its research management sector will sustain continuous frailty research projects.

Facilitate the cooperation of with foreign working groups / institutes.

The studies will include follow-up, efficiency of testing and techniques.

9. Implementation support (finance, data sharing and ICTs)
Develop shared electronic information to enhance integrated care.
ICT solutions to address frailty.
Continuous education using ICT.
Finance support to research:
Exploring local and regional funding sources to Support research process.
Collaboration between different ministries
Specific financial support to go ahead with the frailty approach implementation
10. Monitoring quality and evaluating value/cost-effectiveness
Include frailty on the Health targets.

THE NETHERLANDS

Leader: Liset Rietman under the supervision of Monique Verschuren and Annemieke Spijkerman.

Stakeholders involved in the development of this Road-map: researchers, policy makers, clinicians and older people representatives (RIVM, VWS, UMC Amsterdam, Beter Oud, NUSZO, older people representatives, Genero).

Is the roadmap supported by the Ministry of Health?: Yes.

Key factors to ensure the success of its implementation: Continuous agenda setting from different stakeholders, widespread support among the various organisations involved in support and care for (frail) older people, the involvement of (frail) older people people in the current developments.

A more detailed version of this Roadmap is available at: https://www.rivm.nl/ouderen-van-nu-en-straks/kwetsbare-ouderen

ACTIVITIES
1. Awareness and stakeholders engagement including older people empowerment
Continuation of the 'Council of Elderly persons' (founded in 2018), that advices the Ministry of Health, Welfare and Sport and other parties active in care on themes relevant to older people. Work with various organizations for empowerment and advocacy for older people such as NUZO, ANBO, UnieKBO, NOOM
2. Commitment to action on frailty (Policy alignment)
In the Netherlands, four important laws regarding care for older people, including frail older people, are The Healthcare Insurance Act, The Long-Term Care Act, the Social Support Act 2015 (Info long term care) and the Public Health Act Public Health Act. Continuation of Pact for the elderly care with its three focus areas: preventing and coping with loneliness, ensuring that people can live longer at home and improving nursing home care. Promotion and continuation of the Taskforce 'Frail Elderly'. Promotion and continuation of the monitoring committee 'Future of the care for elderly living at home'. Continuation of several national programmes covering various aspects of (frail) older care and support: Programme 'At home in the nursing home: dignity and pride in every location', Programme 'Longer at Home', Programme 'Long-term care and support', Programme 'Proper care in the right place'. Work with 'Beter Oud' (Ageing Better) an umbrella stakeholders' organization, which represents several regional and national organizations in the Netherlands working on key issues that are important for older people, such as primary care, long-term care, local care services and social services, housing for older people, health inequalities and wellbeing. The predecessor of 'Beter Oud' was the National Programme for Elderly Care (2008-2016), which had the aim to improve care and support for frail older people. Start and continue the WHO Collaborating Centre on Healthy Aging (including frailty) at RIVM (Dutch National Institute for Public Health and the Environment).
3. Promotion of healthy ageing and frailty prevention
Continue to disclose information for municipalities and citizens about preventive interventions aimed at promotion of healthy ageing and prevention of frailty such as prevention of falls, of alcohol use, malnutrition and loneliness, and promotion of empowerment and physical activity.

Intervention Database Elderly and Healthy Communities-Healthy Ageing.

Implementation of population based approaches such as Age friendly Cities (AFC) which promote healthy living environment for older people, such as wider pavements and sufficient benches on the walking route. Examples of these approaches: Gezonde omgeving Utrecht, Even Buurten summary, Amsterdam Age Friendly city, The Hague Age Friendly city.

4. Population surveillance, screening and early diagnosis

Consolidation of several national surveys and monitors (repeated every 2-4 years) directed at the health, well-being and lifestyle of (frail) older people: National health monitor-elderly 2016;

Trends in elderly care; Lifestyle monitor; Food consumption survey 2012-70+; Elderly monitor 2018.

A summary of interventions to proactively identify health and social problems in older people in The Netherlands is given in this paper: Lette et al, bmcgeriatr 2015

5. Appropiate evaluation and interventions

Various screening tools for early detection of frailty are developed/used within The National Care for the Elderly Programme (NPO) in the Netherlands, are listed below and on this website: Beter Oud: Early detection of frailty-why?). Integrated Systematic Care for Older People (ISCOPE); U-Prim; Identification of Seniors at Risk Primary Care (ISAR-PC); Gezond oud in Limburg ([G]OUD); Groningen Frailty Indicator (GFI); Easycare Tweetraps Ouderen Screening (Easycare-TOS); Prisma-7; Tilburg Frailty Indicator (TFI); Resident Assessment Instrument (RAIview); Modified Medical Research Council Dyspnoea (MRC schaal).

In addition, also data from the GP Information System is used for screening.

Improvement of tailoring of early detection strategies and preventive interventions to the specific needs of subgroups of frail older people: Tailored early detection of frailty; Elderly people of tomorrow; Prevention of frailty for disadvantaged elderly people; Preventive interventions for elderly immigrants.

Continue influenza prevention. Via the Dutch National Programme Influenza Prevention, people from 60 years and older are invited to get a vaccination against influenza Influenza Prevention 60 plus.

Management of frailty in general practice as part of integrated care with other health and social care professionals as described on several websites from primary health care professionals: Management of frailty: integrated primary care; National primary care agreement integrated care for frail elderly.

6. Establish and continually improve an integrated model of care to completely address frailty

In the Netherlands, several integrated care initiatives have been established over the last years. Gradually, there has been a shift to programs with a broader approach leading to integrated care initiatives for people with multimorbidity and frail older people. For more information see SUSTAIN Country report NL; SUSTAIN-Roadmap.pdf. This was concluded in the European "Sustainable tailored integrated care for older people in Europe" (SUSTAIN) project. SUSTAIN aimed to concretely improve the way care services for older adults are organized and delivered across Europe, and especially for those who have multiple health and social care needs.

Continue to promote good/ best practices and good examples of integrated (frail) health care:

Genero-overview good practices; Geriatric care Walcheren; Regional integrated care for frail elderly;

Bertholet E: Handreiking multidisciplinaire ouderenzorg met een specialist ouderengeneeskunde in de eerste lijn. Velp: Praktijk ouderengeneeskunde Bertholet en Stichting 1+ geïntegreerde gezondheidszorg Velp, 2013.

Provide care in geriatrics departments with a nursing ward for diagnosis and treatment of frail older people and with geriatrics consultative team. These are special teams from geriatricians to support frail older patients who receive treatment in a department other than the geriatrics department. Geriatrics department; https://www.verenso.nl/de-specialist-ouderengeneeskunde.

Screening for frail older people in emergency rooms, in both university and peripheral hospitals, for example in Leiden and in Groningen.

Promote transmural care initiatives (cooperation between geriatric specialist, internal medicine, general practitioners, home care, etc), such as the University Network Elderly Care and the Transitional Care Bridge in Amsterdam.

Long term care for elderly people, including prevention of infectious disease in nursing homes.

Promote focus on several topics in care for frail older people: polypharmacy; oral care; loneliness.

7. Ensure a sustainable and appropriately trained workforce (education & training)

For general practitioners it is possible to obtain an additional degree in older people care: https://www.nhg.org/scholing/kaderopleiding-ouderengeneeskunde; https://www.laego.nl/

Nurse practitioners in general practice can be trained for older people care: training elderly care nurse practitioners primary care.

Promotion of patient safety in hospitals by the Dutch Association of Hospitals (NVZ) and the Dutch Federation of University Medical Centres (NFU) through education of professionals. 'Frail elderly' is one of the focus points.

In The Netherlands there are different bachelor and master programs that focus on healthy ageing: for example at Hanze University op Applied Sciences; at Fontys University of Applied Sciences; at The Hague University of Applied Sciences (Healthy Ageing bachelor program). And at Leiden University (Vitality and Ageing master program).

8. Strengthen research capacities on frailty

The Netherlands Organisation for Health Research and Development (ZonMW), stimulates the knowledge infrastructure by supporting the academic living labs (collaborations between academia and universities of applied sciences) for older people care. ZonMw has also a research programme focused on older people.

Continuation of the Memorabel research and innovation programme as part of the Deltaplan Dementia. The programme focuses on people with dementia today and patients of tomorrow.

Continued promotion of studies based on the Older Persons and Informal Caregivers Survey – Minimum DataSet (Topics-mds), which is a public data repository which contains information on the physical and mental health and wellbeing of older (frail) persons and informal caregivers across the Netherlands.

In The Netherlands, multiple ongoing cohort studies exist which also include frailty, for example: The doetinchem-cohort studie; the LASA study; Lifelines; the Rotterdam study.

The RIVM studies aging and frailty in various research projects.

Start of the DuSRA-VOILA consortium (2019-2024), partly financed by ZonMw, which aims to recognise, inhibit and repair the functional decline of older people at an earlier stage so that they can spend more years in health. The consortium contains nine research institutes and eight private parties.

Continuation of the FAITH consortium (2017-2015), in which a large number of parties from the Northern Netherlands combine their expertise and experiences in the field of frailty and healthy aging to achieve more insight, practice-oriented knowledge and its application in a personalized approach.

9. Implementation support (finance, data sharing and ICTs)

Develop shared electronic information to enhance integrated care, for example Proper care in the right place; grant development integrated care elderly; grant implementation integrated care elderly.

10. Monitoring quality and evaluating value/cost-effectiveness

The Older Persons and Informal Caregivers Survey – Minimum DataSet (Topics-mds) could potentially be used for monitoring quality and evaluating value/cost-effectiveness.

NORWAY

Leader: Anette Hylen Ranhoff

Stakeholders involved in the development of this Road-map: Norwegian Institute of Public Health and the Norwegian Directorate of Health.

Is the roadmap supported by the Ministry of Health?: Yes

Key factors to ensure the success of its implementation: A full life all your life, a Quality Reform for Older Persons and Dementia Careplan 2020.

ACTIVITIES

1. Awareness and stakeholders engagement including older people empowerment

Awareness campaign to increase knowledge about ageing, ageism and frailty.

Stakeholders: The Norwegian Health Directorate and Ministry of Health and Care (MoH), Ministry of Public Health and Old Age Care. Norwegian Institute of Public Health (NIPH), Norwegian Society of Geriatric Medicine (NSGM), Norwegian Society of Gerontology (NSG).

Activities: Ongoing campaign: "Leve hele livet" (To live the whole life), is promoting active and healthy ageing (Ministry of health and Care). Open public meetings (NIPH, NSGM, NSG).

2. Commitment to action on frailty (Policy alignment)

Develop a Strategy on Ageing that includes frailty using the WHO concept (2015)

Alignment of previous/other strategies or plans with frailty (using WHO concept, 2015)

Create a department of Healthy Ageing or Health program for Older People (OP): Is already established

3. Promotion of healthy ageing and frailty prevention

Implementation of population based approaches

- Age friendly Cities (AFC). Also to include age friendly hospitals (implementation of dementia-friendly hospitals is ongoing).

Guidelines to prevent frailty/promote healthy ageing: The "Leve hele livet" campaign (MoH).

Guidelines for physical activity and nutrition already exists (Health Directorate).

Development of guidelines to detect frailty (NSGM).

4. Population surveillance, screening and early diagnosis

Evaluation of frailty on a national/regional survey/study: Two ongoing studies on regional level (Tromsø study, HUNT study).

Adoption of risk stratification strategies based on a sound epidemiological picture of frailty:

Frailty observatories/registres

Systematic and periodical early detection (case finding/screening): Development of systems in primary care and hospital care.

5. Appropiate evaluation and interventions

Use of CGA as main tool to assess frail people in all setting on order to develop an individual care plan: Simplified CGA without geriatrician participation should be developed for primary care, and some hospital settings, due to lack of geriatricians.

Develop guidelines in specific management aspects:

- polypharmacy, physical activity, nutrition programs, falls, immunization

Guidelines to manage frailty (early detection and management): Primary care and general hospital care as well as specialised hospital care (surgery, cardiac intervention, oncology).

6. Establish and continually improve an integrated model of care to completely address frailty

National/Regional recommendations aligned with the SoAR, to improve the model of care for older people.

Evaluate and improve ongoing programs for older people, scale-up that ones with positive results & pilot new programs of integrated care for frail patients based on the ADVANTAGE State of the Art Report recommendations.

7. Ensure a sustainable and appropriately trained workforce (education & training)

Include frailty training in the undergraduate curricula of all health and social disciplines: This is already implemented in medical schools in all four universities, and in all nursing schools. Physiotherapists, occupational therapists, pharmacists and nutritionists, as well as social workers are important professions where frailty training should be included in the curricula.

Include frailty training in the postgraduate curricula for all health and social disciplines: This is included in post graduate (specialist) training for internal medicine and geriatrics, geriatric nursing and master studies in gerontology for PTs, OTs, pharmacists. Should be included more broadly. A master program in advanced primary care nursing is under development.

Continuous education for all health and social care disciplines: This should be included and systematised in all services for older people, responsibility by the organisation.

Indicators should be aligned by these three activities: Is well established for the medical schools and post graduate physicians (internal medicine and geriatrics).

Include frailty training in the undergraduate curricula of all health and social disciplines: This is already implemented in medical schools in all four universities, and in all nursing schools. Physiotherapists, occupational therapists, pharmacists and nutritionists, as well as social workers are important professions where frailty training should be included in the curricula.

8. Strengthen research capacities on frailty

1. Strengthen coherence between different ministeries with MoH investments: The Norwegian Directorate on Health, The Norwegian Research Council (NRC) and Health Regions (as funding of research)
2. Support research on frailty: ensure calls with specific funds at regional, country and EU level
3. Facilitate the creation of multidisclipinary research networks: Examples to follow; Aging and Health network (aldringoghelse.no), Very old in Intensive Care -VIP2 study group (https://www.vip2study.com/), Kavli Research Centre network (kavlisenter.no), SESAM – Regionalt senter for eldremedisin og samhandling (https://helse-stavanger.no/avdelinger/klinikk-psykisk-helsevern-voksne/avdeling-alderspsykiatri/sesam)
4. Facilitate the cooperation of national research groups with foreign ones: This is done via the groups mentioned on 3. When applying for research grants, collaboration with research groups from other countries should be honoured (as is the policy of the NRC and the Health Regions).
5. Promote follow up on national cohorts: Norway has regional cohorts; The Tromsø study has follow up on frailty indicators, the HUNT study has also included frailty indicators. The NORSE study and other smaller studies have bassline data, but no follow-up so far.
6. Establish a national program on frailty research – published and defined funding by the government (NCR?)

9. Implementation support (finance, data sharing and ICTs)
Norway has a public health system – financed by the government.
Develop shared electronic information to enhance integrated care: Improve communication between primary care and hospital care.
ICT solutions to address frailty: To be developed.
Continuous education using ICT: Both nationally, regionally and locally.
Finance support to research:
Strengthen coherence between different ministeries with MoH investments and Other partners: Industry
10. Monitoring quality and evaluating value/cost-effectiveness
Include frailty on the health targets (MoH)
Use indicators to support those responsible for delivering strategies to improve health and wellbeing of older people.

POLAND

Leader: National Institute of Geriatrics, Rheumatology and Rehabilitation

Stakeholders involved in the development of this Road-map:

- National Institute of Geriatrics, Rheumatology and Rehabilitation
- National Institute of Public Health
- Country Council of Physioterapists
- Third Age University

Is the roadmap supported by the Ministry of Health?: *No*

Key factors to ensure the success of its implementation:

- interest in aging of Polish population by central and local authorities;
- statutory tasks of National Institute of Geriatrics, Rheumatology and Rehabilitation and National Institute of Public Health designated by the Polish government and Ministry of Health.

ACTIVITIES

1. Building awareness and involvement of stakeholders to enhance the position of older people

1.1. Awareness campaign shaping the positive perception of older people in society. Activities aimed at broadening the knowledge of Polish society on ageing in terms of demographic, medical and psycho-social aspects, including information on the situation of pre-frail and frail people.

1.2. Cooperation between institutions responsible for creating a public senior-friendly environment and activities strengthening their social position (including acting to eliminate information restriction as well as technical, urban, architectural and communication barriers and improving road safety). Participating in activities promoting the improvement of public space and infrastructure taking into account the needs of older people with disabilities. Providing information on frailty syndrome to local authorities and patient organizations participating in decision-making processes aimed at performing analyses regarding the accessibility of public space for seniors, diagnosing existing limitations and solving related problems, e.g. by removing obstacles in public institutions.

1.3. Cooperation between entities/ institutions in encouraging older people to learn throughout life. Supporting solutions connected with improvement of access to education by older people (e-learning, use of the multimedia, Internet, communication technologies, educational centers i.e. Universities of the Third Age, Open Universities).

1.4. Including stakeholders from various important sectors in the activities regarding creating a positive image of old age in society, participation in the work of the inter-ministerial working group on ageing and frailty (composed of representatives of various involved institutions, patients: seniors and their caregivers).

1.5. Creating the informative-educational platform*: the frailty syndrome*, aimed at posting up-to-date information on the frailty syndrome prepared, among others, by a team of experts in the field of geriatrics and frailty.

2. Commitment to action (adjusting the policy)

2.1. Developing a strategy and action plan on ageing and health according to WHO conceptions from 2015 including frailty prevention and treatment strategies. Documents: Global Strategy and action plan on ageing and health. Geneva. World Health Organization, 2017., World Report on Ageing and Health. Geneva. World Health Organization, 2015, Frailty Prevention Approach 2019 and the Poland ROADMAP).

2.2. Evaluation of actions resulting from the project: "Social policy for the elderly 2030. Safety. Participation. Solidarity", passed on October 26, 2018 – Resolution No. 161 of the Council of Ministers and the National Action Plan for Equal Treatment of December 10, 2013 for people suffering from frailty (additional actions regarding preventing frail people discrimination and inequalities connected with their age, biological changes taking place in the older person's body, resulting in disabilities and adaptive difficulties, including cognitive, sensory and motion disorders and overall physical weakness that may lead to the perception of the older people as being weaker and dependent).

2.3. Adjusting existing activities in terms of National Healthcare Plan for years 2016-2020 and the new plan for 2021-2025 in the part regarding Promotion of healthy and active ageing to the confirmed strategy of WHO by taking frailty into consideration as well as the revised approach in the previously realized actions and goals of healthcare policy and missions of the Public Health Institute.

2.4. Health education regarding healthy ageing (according to WHO documentation Documents: Global Strategy and action plan on ageing and health. Geneva. World Health Organization, 2017., World Report on Ageing and Health. Geneva. World Health Organization, 2015) and prevention of the frailty syndrome.

2.5. Interest in frailty problem on a parliament level (health committee, social policy committee, all members of the Parliament)

3. Promotion of healthy ageing and prevention of the frailty syndrome

3.1. Educating in terms of promotion of healthy ageing and prevention of the frailty syndrome on many levels: health and social policy decision-makers at the national and local level, leaders/ managers of organizations and institutions providing and supervising health and social care, healthcare professionals, caregivers' communities, members of non-governmental organizations.

3.2. Actions aiming at safe home environment for the older people - ensuring physical security, education of the older people and informational support with regard to the:

3.3. Developing guidelines (hand-books for seniors) comprising the issues of how to find your way among various establishments, authorities, service-providers, take advantage of the offer for health services, social care, establishments to prevent the situations that could pose a threat to your health and safety, especially among the frail people.

4. Population research, population screening and early prognosis

4.1. Nationwide Polsenior-2 project. In this project, assessment of prevalence of the frailty syndrome according to the Fried criteria of 2001, examination of financial situation and living conditions of those people and the whole examined group, assessment of the quality of life, professional activity, family situation, need for care, health care availability is performed (years 2018-2019).

4.2. Analysis of project Polsenior-2 results, final evaluation.

4.3. After collected data assessment and methodology effectiveness evaluation, a decision on similar research continuation will be made, as a part of National Health Program 2021-2025, with participation and coordination of the National Geriatrics, Rheumatology and Rehabilitation Council.

4.4. Continuation of activities under the HARC initiative - Healthy Ageing Research Centre at the Medical University of Lodz, designed to support research on the environmental and social factors associated with healthy ageing and to understand the immunological and molecular mechanisms of this process in order to develop potential new strategies in support of it.

4.5. Conducting a nationwide quantitative study in the field of knowledge about the frailty syndrome among primary healthcare staff and people aged over 40 - as part of the National Health Programme initiative in the next edition (2021-2025).

4.6. Encouragement of scientific and academic circles to take up the frailty syndrome subject in research, other projects and publications.

4.7. Planning and implementation of multi-centre studies (the National Institute of Geriatrics, Rheumatology and Rehabilitation has currently established co-operation with several universities and institutes in the planning and implementation of the nationwide research)

4.8. Population screening aimed at prevalence of frailty syndrome, including the examination of individual areas of the health status of older people, needs in daily living and depending on other people, conditioning the quality of life related to health

4.9. Conducting research and analysis of the adequacy and effectiveness of healthcare services provided in relation to the determined health needs of older people (and frail people)

4.10. Continuation of the Joint Action Health Equity Europe JAHEE project in the years of 2017-2021 (in terms of older people frail).

5. Proper evaluation and interventions

5.1. Making the Comprehensive Geriatric Assessment (COG) popular as the main diagnostic method in order to assess the functional capability of the older people whose aim is to detect those with frailty, recognise deficits of individual functions and develop, on that basis, the care schedule aiming at restoration and improvement of fitness and prevention against negative consequences of frailty.

5.2. Launching the informational and educational platform: "zespolkruchosci" containing the information about ageing and frailty addressed to various groups of recipients.

5.3. Liaison with the Poland-wide and regional media in order to disseminate information about frailty syndrome, ADVANTAGE as well as up-to-date events addressed to patients and their families.

6. Implementation and continuation of the implementation of an integrated healthcare model addressed to frail people

6.1. Development of the recommendations and the Poland-wide and regional level with regard to the implementation of the integrated geriatric care model, description and pilot-programme implementation of the model in selected places where medical services are rendered in Poland.

7. Ensuring proper staff training

7.1. Systematic educational activities among doctors of specialities other than geriatrics and among geriatric doctors, nurses, physiotherapists, dieticians, psychologists, carers. Incorporation of the frailty syndrome content in undergraduate educational programmes, specializations and courses. Incorporation of the frailty syndrome content in undergraduate educational programmes, specializations and courses.

8. Resinforcement of the research in frailty

8.1. Taking up scientific research related to the frailty syndrome issues as part of promotional works in research and university centres (bachelor degrees, MSc degrees, PhD dissertations, scientific grants, engagement of student scientific circles).

9. Implementation and support

9.1. Ensuring interoperability of the systems used for sending and rendering electronic medical documentation available.

9.2. Organisation of conferences, workshops, meetings, trainings addressed to the local government units (communes, poviats) in the field of dissemination of health prophylaxis and promotion with the use of modern tools, publishing activity and informational campaigns.

10. Monitoring quality and evaluating value / cost effectiveness

10.1. Analyses of the level and method of financing or terms and conditions of medical services implementation with regard to the older people.

10.2. Striving to achieve standardisation and optimisation of rendering medical services.

10.3. Analysis of data pertaining to the structure of the medical care services that have been rendered to the older people.

PORTUGAL

Leader: Nicole Chaves da Silva & Miguel Telo de Arriaga

Stakeholders involved in the development of this Road-map: Ministry of Health

Is the roadmap supported by the Ministry of Health?: Yes

Key factors to ensure the success of its implementation: In order to ensure the success of the implementation, the Portuguese roadmap is integrated in the already develop policies in the field of ageing, chronic diseases, health literacy and integrated care.

ACTIVITIES
1. Awareness and stakeholders engagement including older people empowerment
Adopt and disseminate the WHO definition of frailty. Disseminate the Face up to frailty campaign. Produce infographic and others dissemination materials based on the documents produced within the JA.
2. Commitment to action on frailty (Policy alignment)
Include the various aspect of frailty in the National Action Plan for Health Literacy. Articulation with the other priority Health Programmes (healthy eating, physical activity).
3. Promotion of healthy ageing and frailty prevention
Definition of guidelines to tackle frailty. Include frailty in the National Strategy for Active and Healthy Ageing.
4. Population surveillance, screening and early diagnosis
Evaluate the frailty measure scales and implement the one that proves to be more appropriate for the health assessment performed at the various levels of care. Pilot-project about the frailty though Ageing Projects.
5. Appropriate evaluation and interventions
Create an evaluation framework to monitor the interventions that will be undertaken.
6. Establish and continually improve a integrated model of care to completely address frailty
Articulate with the National Network for Continued Integrated Care frailty assessment. Pilot programmes of integrated care based on the ADVANTAGE SoAr.
7. Ensure a sustainable and appropriately trained workforce (education & training)
Include training in a Web-based platform. Promote training courses on frailty for health professionals.

8. Strengthen research capacities on frailty
Research partnerships with universities and research centres.
9. Implementation support (finance, data sharing and ICTs)
Articulation with the National Strategy for Active and Healthy Ageing, priority health programmes and projects in the field of ageing.
10. Monitoring quality and evaluating value/cost-effectiveness
Create an evaluation framework to monitor the interventions that will be undertaken.

ROMANIA

Leader: National School of Public Health Management and Professional Development Bucharest, Babes-Bolyai University and National Centre for Mental Health and Antidrug Fight

Stakeholders involved in the development of this Road-map: health professionals, health authorities, professional associations, associations of older people, universities, ICT institutions, NGOs

Is the roadmap supported by the Ministry of Health?: YES

Key factors to ensure the success of its implementation:

- A very good collaboration and coordination between the three Romanian partners coming from different but effectively complemented fields (medical, social, education);
- Early and high involvement of the stakeholders who have participated to open discussions regarding all aspects of the roadmap;
- Public institutions were closely kept informed during the process and feedback was asked and implemented in the draft versions

ACTIVITIES
1. Awareness and stakeholders engagement including older people empowerment
Develop and implement awareness campaign to increase knowledge about ageing, ageism and frailty.
Develop and implement population awareness campaigns regarding frailty concept, among citizens at risk of frailty.
Promote integration of strategic measures in health with other sectoral policies having impact on health associated with population ageing.
Develop an intersectoral working group on ageing and frailty that includes older people and caregivers and involves key stakeholders from relevant sectors.
Involve local authorities to address frailty through measures in medical and social areas.
2. Commitment to action on frailty (policy alignment)
Develop a Strategy on Ageing that includes frailty using the WHO concept (2015)
Align previous/other strategies or plans with frailty (using WHO concept, 2015)
Promote the European approach in the field of prevention and management of frailty
Create a department of Healthy Ageing or Health program for Older People (OP)
Develop legislation and enforcement strategies against age-based discrimination
3. Promotion of healthy ageing and frailty prevention
Promote active and healthy ageing approach through national/local programmes organized by collaboration between various organizations: Ministry of Labor, Ministry of Health, local authorities, Universities, other institutions, NGOs
Implement a population based approach to active ageing and frailty prevention, based on- WHO Age friendly Cities approach (AFC)
Develop guidelines to prevent frailty
4. Population surveillance, screening and early diagnosis
Evaluate frailty on a national/regional survey/study. Adopt risk stratification strategies based on a sound epidemiological picture of frailty.

Early detecting frailty in a systematic and periodical approach (case finding/screening) (eg. develop and implement a two-steps screening programme for frailty at community level).

Develop a Frailty observatory/registry.

5. Appropiate evaluation and interventions

Develop guidelines to manage frailty (early detection and management) at the individual level.

Develop guidelines in specific management aspects: polypharmacy, physical activity, nutrition programmes, falls, immunization.

Use CGA as the main tool to assess frail people in all settings in order to develop an individual care plan.

Design specific interventions (based on comprehensive geriatric assessment) to optimize functional ability in older people with frailty.

Implement multidisciplinary interventions for frailty management in various settings.

6. Establish and continually improve a integrated model of care to completely address frailty

Develop an ambulatory care geriatric network at national level.

Design a model for integrated care medical-social at individual level, e.g. case-management.

Develop a methodologic framework to involve social workers in medical teams managing older people with frailty diagnosis (secondary and primary sector structures);

Elaborate National/Regional recommendations aligned with the SoAR, to improve the model of care for older people with frailty in different settings:

- Increase community involvement in managing frailty at older people
- Develop and adapt outpatient care (ambulatory care) to manage frailty in older patients
- Develop and adapt the primary care system to manage older patients with frailty
- Develop and adapt the hospital system to manage older patients with frailty

Develop and implement a pilot program on integrated care for frail patients based on the ADVANTAGE SoAr recommendations.

Evaluate and improve ongoing programs for older people, scale-up the ones with positive results.

Adapt existing national guidelines for specific CDs (dementia, palliative care and falls and bone health etc) in relation with this integralist approach for frailty.

Develop pilot programmes of integrated care for frail patients with comorbidities (based on Advantage SoAR recommendations).

Include frailty management in accreditation criteria for units treating a high percentage of older patients (eg in geriatric departments, long-term care).

Support the informal caregivers of the older people through financial measures and specific legislation within the social-medical services.

7. Ensure a sustainable and appropriately trained workforce (EDUCATION & TRAINING)

Develop training curricula in areas that are currently not part of the university or postgraduate training curricula of health professionals and/or related domains (social / psychology / architecture etc.).

Include FPA recommendatios about core capabilities in undergraduate, postgraduate and continuum curricula in all Health and social disciplines.

Develop and implement a national e-learning programme for professionals on frailty prevention and management.

Develop national/regional learning programmes in the field of management of frailty/ageing services for policy makers and managers.

8. Strengthen research capacities on frailty
Facilitate the creation of multidisciplinary research networks.
Facilitate the cooperation of national research groups with foreign ones.
Ensure research calls on frailty covering national cohorts follow-up, efficiency testing of interventions to avoid and manage frailty and creation of biobanks to study biomarkers of frailty.
Promote inclusion of frailty on the national research investements agenda.
9. Implementation support (finance, data sharing and icts)
Develop and implement shared electronic information systems to enhance integrated care.
Develop and implement ICT solutions to address frailty.
Develop telemedicine sector for older people with frailty in remote and rural areas.0
Develop and implement continuous education using ICT.
Assure finance support for research: strengthen coherence between different ministries with MoH investments and other partners.
Assure specific finance support to go ahead with the frailty approach implementation.
Support representative public health institutions in developing and implementing tools used to assess the effectiveness of intervention programmes for frailty.
10. Monitoring quality and evaluating value/cost-effectiveness
Include frailty on the Health targets.
Use indicators to support those responsible for delivering strategies to improve health and wellbeing of old people.

SLOVENIA

Leader: Branko Gabrovec

Stakeholders involved in the development of this Road-map: NIPH, MoH, NGO's

Is the roadmap supported by the Ministry of Health?: YES

Key factors to ensure the success of its implementation:

- Support of the MoH and professional bodies;
- Continuation of project in the direction of implementation

ACTIVITIES

1. Awareness and stakeholders engagement including older people empowerment

Involve key stakeholders from relevant sectors; intersectorial working group on ageing and frailty that includes older people and caregivers.

Defining frailty as a national priority in the health plan.

2. Commitment to action on frailty (Policy alignment)

Develop a Strategy on Ageing that includes frailty using the WHO concept (2015).

3. Promotion of healthy ageing and frailty prevention

Guidelines to prevent frailty/promote healthy ageing.

4. Population surveillance, screening and early diagnosis

Adoption of risk stratification strategies based on a sound epidemiological picture of frailty.

Systematic and periodical early detection (case finding/screening).

5. Appropiate evaluation and interventions

Use of CGA as main tool to assess frail People in all setting on order to develop an individual care plan.

Develop guidelines in specific management aspects:

- polypharmacy
- physical activity
- nutrition programs
- falls
- imunization

Guidelines to manage frailty (early detection and management).

6. Establish and continually improve a integrated model of care to completely address frailty

National/Regional recommendations aligned with the SoAR, to improve the model of care for older people.

Evaluate and improve ongoing programs for older people, scale-up that ones with positive results & pilot new programs of integrated care for frail patients based on the ADVANTAGE SoAr recommendations.

Evaluation of existing programs.

Improve pathways.

Development of geriatric facilities (units, departments, services).

7. Ensure a sustainable and appropriately trained workforce (education & training)

Include *FPA recommendations about core capabilities* in undergraduate, postgraduate and continuum curricula in all Health and social disciplines.

All health sciences recommendations.

8. Strengthen research capacities on frailty

Identification of research capacities on the field of frailty in Slovenia.

Promotion of frailty studies in research institutions.

Facilitate the creation of multidisciplinar research networks.

Facilitate the cooperation of national research groups with foreign ones.

Ensure research calls on frailty covering national cohorts follow-up, efficiency testing of interventions to avoid and managing frailty and creation of biobanks to study biomarkers of frailty.

9. Implementation support (finance, data sharing and ICTs)

Develop shared electronic information to enhance integrated care.

ICT solutions to address frailty.

Continuous education using ICT.

Finance support to research:

- Strenghthen coherence between different ministeries with MoH investments;
- And Other partners: Industry

Specific finance support to go ahead with the frailty approach implementation.

10. Monitoring quality and evaluating value/cost-effectiveness

Include frailty on the Health targets.

Use indicators to support those responsibles for delivering strategies to improve Health and wellbeing of OP.

SPAIN

Leader: Spanish Ministry of Health, Consumer Affairs and Social Welfare.

Stakeholders involved in the development of this Road-map: Public health departments of Spanish regions; professional associations of geriatricians, primary care physicians, nurses and researchers.

Is the roadmap supported by the Ministry of Health? YES

Key factors to ensure the success of its implementation:

- Continued commitment of the three administration levels (Central, Regional and Local) with the frailty prevention and management;
- Involvement of Ministries not directly related with health and social care (Education and research);
- Higher social knowledge and engagement with frailty and its consequences.

ACTIVITIES

1. Awareness and stakeholders engagement including older people empowerment

Develop a national awareness campaign on ageing, fighting ageism and frailty, based on the awareness campaign developed within ADVANTAGE "Face-up to Frailty" (and/or follow its own principles), addressed to:

- General population
- Healthcare professionals and other professionals working with the older people
- Politicians (ministries and councils).

Support actions related to the prevention of frailty, through periodic meetings of the Working Group on the Prevention of Frailty and Falls (GTF, in its Spanish acronym) of the Prevention and Health Promotion Strategy of the Spanish National Health Service (NHS)". This group is made up of representatives from the Autonomous Regions and cities, and other professionals from the health sector, and is coordinated by the Sub-directorate for Health Promotion and Public Health Surveillance (SGPSYVSP, in its Spanish acronym) (General Directorate of Public Health, Quality and Innovation of the Ministry of Health, Consumer Affairs and Social Welfare). The following will be the functions of this Working Group:

- Assess the revision and updating, if necessary, of the documents produced by the GTF, including the "Consensus Document on the prevention of frailty and falls in the older people".
- Assess the necessity of the concretion of the approach to frailty in the National Health System.
- Promote and support Autonomous Regions to develop care plans for the older people which focus on the dependency prevention and frailty approach (understanding frailty as defined by the WHO, 2015), and lined up with the Consensus Document on frailty and falls in the older people.
- Advance towards intersectional work on ageing and frailty to facilitate a coordinated and transversal approach. This could be done by creating an intersectional group or by participating in one already created by other administrations or institutions.

2. Commitment to action on frailty (Policy alignment)

Advocate so that frailty can be represented in age-related health strategies which are lined up with the WHO vision.

3. Promotion of healthy ageing and frailty prevention

Encourage the implementation of coordinated and intersectional community initiatives with an equity perspective, that promote healthy ageing and prevent the appearance of frailty, such as: physical activity programs adapted to functional capacity; fall prevention programs; healthy eating programs; promotion of rational use of drugs; vaccination campaigns and promoting the development of healthy environments/cities (in line with the WHO's initiative Age-friendly Cities and Communities), etc.

Encourage and support the Autonomous Regions to align their programs of preventive activities for the older people with the Comprehensive counselling about life styles in Primary Healthcare, linked to community resources in the adult population.

4. Population surveillance, screening and early diagnosis

Evaluate the implementation of the "Consensus document on the prevention of frailty and falls in the older people"4 in accordance with the "Program for evaluation and continuous improvement".

Facilitate and encourage Primary Care health professionals to record and monitor the presence of frailty homogeneously through electronic records. To this end, professionals will be encouraged to receive the appropriate training to record, as well as to include, information on frailty in the electronic records, with the support of the document "Record in the Electronic Clinical History of Primary Care"6, developed by the GTF and agreed upon by the Autonomous Regions.

Promote and encourage the implementation of the "Consensus document on the prevention of frailty and falls in the older people "4 in all of the Autonomous Regions.

5. Appropiate evaluation and interventions

Advocate for the development of multidisciplinary action protocols or national guidelines, agreed upon by the Autonomous Regions, to address frailty in healthcare processes, stressing the need for including:

- The use of the Comprehensive Geriatric Assessment adapted to the different levels of care as an assessment tool for all frail older people.
- The promotion of care focused on the older needs in all hospitals.
- Actions to promote the improvement of healthcare routes, so that they integrate and coordinate the assessment, detection, prevention, diagnosis, recording and management of frailty in all areas of care for the older people (primary care as enter point but in coordination with the other settings of care: hospital, social health services, community services).

6. Establish and continually improve a integrated model of care to completely address frailty

Recommend the development of a national consensus document, in line with the Frailty Prevention Approach1 (FPA) and the Strategy to address Chronicity within the National Health Service, on the model of integrated care for the.

Promote the evaluation and improvement of integrated care strategies or models which are currently being introduced in the different settings, in terms of functional capacity and other health outcomes which are relevant for the older people.

Identify good practices in regard to integrated care models with positive results and encourage their transfer.

Encourage pilot new integrated care strategies or models, based on the FPA1.

Promote coordinated measures between different areas (healthcare, social services, community) in order to guarantee and strengthen continuity in the management of frailty, and in transitions between levels of care.

7. Ensure a sustainable and appropriately trained workforce (education & training)

Establish collaboration agreements with those in charge of education and training to promote the inclusion of minimum content on ageing and frailty, in line with the FPA, in vocational training, health sciences undergraduate and graduate studies, as well as other related studies.

Advocate for the inclusion of minimum content on ageing and frailty, in line with the FPA, in the specialized health training of all healthcare professionals.

Promote continuous training activities in ageing and frailty for all healthcare professionals with the support of new communication technologies. For example, promoting and updating the course "Detection and management of frailty and falls in the older people"7.

Support and facilitate the creation of forums and meeting points between healthcare and non-healthcare professionals, in order to encourage the exchange of good practices and the dissemination of knowledge that contribute to healthy ageing.

8. Strengthen research capacities on frailty

Establish contact with research decision-makers in order to encourage financial support for research groups on ageing, dependency and frailty prevention. These can be, for example, the Biomedical Research Networking Centre on Frailty and Healthy Ageing (CIBERFES, in its Spanish acronym), with the ultimate aim of ensuring the monitoring of national cohorts, the efficient evaluation of frailty interventions, and the creation and maintenance of biobanks to study frailty biomarkers.

Encourage state decision-makers with research competencies to incorporate ageing and frailty experts in research evaluation committees and facilitate the creation of a specific committee for the Area of Ageing and Frailty.

Encourage state decision-makers with research competencies, other organizations, and private companies to create multidisciplinary research groups, with strategic national and international alliances, that favor research and innovation, including the use of new communication technologies in tackling frailty.

Encourage that the latest research results are transmitted to public policy and among the population.

9. Implementation support (finance, data sharing and ICTs)

Assess the use of information on frailty or proxies in national information systems, health surveys and other sources. Suggest the inclusion of frailty indicators in information systems.

10. Monitoring quality and evaluating value/cost-effectiveness

Develop indicators in order to monitor the implementation of this Road Map.

UNITED KINGDOM

Leader: NHS Lanarkshire engaging engage and connecting policy and professional leads of all four UK countries around the work of Advantage JA.

Stakeholders involved in the development of this Road-map:

- Scotland – national older people development group, Scottish Older People Assembly and Cross Party Group
- Northern Ireland - Frailty Network and Integrated Care Partnerships
- England – NHS England and national policy forum for older people
- Wales - Bevan Commission.

Is the roadmap supported by the Ministry of Health?: Yes. Each country network includes representatives from Ministry, policy, delivery, healthcare, social care, public health, older people, carers, Third sector providers, and independent social care partners.

Key factors to ensure the success of its implementation:

- support for local health and care systems to adopt new models of integrated care;
- ability to monitor and benchmark data on community and intermediate care models and to link this with resource utilisation and shifts in the balance of care;
- education and training on core capabilities to prevent and manage frailty;
- continuing to meet and exchange knowledge as a UK forum, extending our links with professional bodies, education providers and regulatory bodies.

ACTIVITIES
1. Awareness raising, stakeholder engagement and empowerment of older persons
Work with **Age UK** on empowerment and advocacy for older people; Share the **National Voices** - 'I am still me' narrative
Promote the Campaign to end loneliness and **campaign to end immobilisation in hospital** (PJ paralysis_
Expand the memberships of **British Geriatrics Society and NHS Networks online Special Interest groups on Frailty**
Engage with the **Scottish Older People's Assembly** and **Cross Party Group** on older people, age and ageing
Engage with the Older People's Commissioners- independent champions for older people in N Ireland and Wales
Disseminate **Age NI and NI Public Health Agency survey** of older people's views about frailty 2018
Support the **Face up to Frailty Campaign**
2. Commitment to action on frailty (Policy alignment)
Take action on **UK Government report** Future of an Ageing Population.
Implement the **NHS Long Term Plan 2019-2029** has specific commitments and aims to reduce frailty progression and promote reduction in frailty status 20172018/https://www.england.nhs.uk/long-term-plan
Support the **National Frailty Network in N Ireland** - launched April 2019
Establish a **Ministerial portfolio for Older People and Equalities** in Scotland - **Fairer Scotland for Older People framework for action** published April 2019
Update the cross sector **National Falls Strategy** in Scotland
Undertake a Scottish Government Health and Sport Committee **inquiry into social care capacity** - scheduled for 2019/2020

Implement the **Housing strategy for older people** in Scotland 2018 https://www.gov.scot/publications/age-home-community-next-phase/

3. Promotion of healthy ageing and prevention of frailty

Public Health England Active and Healthy Ageing: Implement the national plan to promote physical activity to prevent onset of frailty and limit its progression

https://www.gov.uk/government/publications/productive-healthy-ageing-and-musculoskeletal-health/productive-healthy-ageing-and-musculoskeletal-msk-health

Implement the **Care About Physical Activity Programme Phase 2** (Scotland): promoting physical activity for older people receiving care and support at home

Promote the Ageing Well in Wales and Public Health Wales national **Falls Prevention Programme for Older People**

Promote the **NHS Inform on line advice** for citizens on healthy living, mental wellbeing, nutrition, exercise and falls

Implement and evaluate Eat Well Age Well - a national project tackling malnutrition in older people living at home in Scotland.

Spread the Take the Balance Challenge public campaign to reduce falls

4. Population surveillance, screening and early diagnosis

NHS Long Term Plan 2019-2029: Routine identification of moderate frailty to support population segment assessment via comprehensive geriatric assessment and management with the intent of reducing frailty progression for up to 10% of this population and promoting reduction in frailty status for up to a further 10%. 20172018/https://www.england.nhs.uk/long-term-plan

Promote use of **electronic Frailty Index** by inclusión within GP information tool SPIRE (Scotland)

5. Appropriate assessment and interventions

NHS GMS Frailty contractual requirements 2017/18: Routine identification of severe and where possible moderate frailty in all registered GP populations nationally using the electronic frailty index to identify potential frailty, followed by clinical verification to confirm diagnosis and intervention through medication review and falls risk identification for people aged 65 and over. https://www.england.nhs.uk/publication/supporting-routine-frailty-identification-and-frailty-through-the-gp-contract

Adop**t NICE Guidelines and Quality Standards** on **multimorbidity and frailty identification, care planning, care coordination, and medicines review**

Implement the National Consensus Statement **and NICE quality standard for prevention of falls, assessment and care and the promotion of healthy ageing.**

Implement guidance on key Considerations for Prescribing in Frail Adults in Wales

Apply N Ireland **Medicines Optimisation Quality Framework** - pharmacy roles, services and technologies to support appropriate polypharmacy and adherence.

Implement **Polypharmacy guidance and extended pharmacotherapy service in Primary Care** as part of the new GP contract (Scotland)

6. Establish and continually improve an integrated model of care to completely address frailty

Implement the **Primary Care Network Contract 2019**: System integration focused on ageing well for moderate frailty and care homes support for people with moderate and severe frailty delivered via 44 integrated care systems and primary care networks focused on populations of between 30,000 and 50,000 resident population. https://www.england.nhs.uk/2019/01/five-year-deal-to-expand-gp-services-and-kick-start-nhs-long-term-plan-implementation/ ; https://www.england.nhs.uk/expo/wp-content/uploads/sites/18/2018/09/11.00-What-does-an-optimal-frailty-system-look-like.pdf

Implement the **NHS Long Term Plan recommendations for Ageing well -** community Multidisciplinary teams for people with moderate frailty; extend access to enhanced health in care homes; and deliver an urgent community intermediate care response (Crisis response in 2 hours ; Reablement delivered within 2 days)

Support the **Acute Frailty Network (AFN):** Supporting people with frailty and urgent care needs to get home sooner and healthier https://www.acutefrailtynetwork.org.uk/

Implement the **National Quality Improvement Programme linked to Acute Frailty**: Meeting the urgent care needs of people living with frailty https://gettingitrightfirsttime.co.uk/

Adopt the **NHS Improvement Good Practice Guide on Improving Patient Flow** (including frailty)

https://improvement.nhs.uk/documents/1426/Patient_Flow_Guidance_2017 13_July_2017.pdf

Adopt the NHS Improvement Rapid Improvement Guide - Identifying and managing 'frailty at the front door' https://improvement.nhs.uk/documents/579/identifying-and-managing-frailty-RIG.pdf

Introduce and support adoption of 'Rightcare Frailty Pathway/Toolkit' https://www.england.nhs.uk/rightcare/products/pathways/frailty/ and Falls and Fragility fractures pathway https://www.england.nhs.uk/rightcare/products/pathways/falls-and-fragility-fractures-pathway/

Introduce two new national collaborative improvement programmes for frailty in (Scotland) – one in the community and one with care home residents

7. Ensure a sustainable and appropriately trained workforce (education & training)

Health Education England: Frailty Core Capabilities Framework: Support use of the core framework for skills and capabilities training across health and social care

http://www.skillsforhealth.org.uk/services/item/607-frailty-core-capabilities-framework

Delivery of education and training on frailty for workforce in England aligned with core capabilities

Introduce a **Project ECHO online educational programme** on frailty in N Ireland

Promote use of the Fit for Frailty **campaign and suite of online resources** developed jointly by the British Geriatrics Society, Age UK and the Royal College of General Practitioners.

Promote use of the **Royal Pharmaceutical Society online tools** https://www.rpharms.com/recognition/setting-professional-standards/polypharmacy-getting-our-medicines-right

8. Strengthen research capacities on frailty

Funding for the **NIHR Themed call for frailty research**, supported and led by a **National Frailty Policy Research Unit.** https://www.nihr.ac.uk/funding-and-support/themed-calls/frailty.htm

https://www.nihr.ac.uk/about-us/how-we-are-managed/our-structure/research/policy-research-units.htm

Funding for research from **UK industrial strategy Grand challenge on Ageing Society**: to promote improved physical and mental health in older people.

9. Implementation support (finance, data sharing and ICTs)

Develop capability for **Strategic planning and commissioning for population health and use of integrated health and social care budgets**

NHS Rightcare Commissioning Support to local populations using existing and new data sets to focus on ageing well with mild frailty, supporting and preventing progression of moderate frailty and supporting severe frailty through to end of life https://www.england.nhs.uk/rightcare/products/pathways/

https://www.england.nhs.uk/expo/wp-content/uploads/sites/18/2018/09/11.00-What-does-an-optimal-frailty-system-look-like.pdf

Implement the next stage of the **Technology Enabled Care and Digital Transformation Programme (Scotland) –** including pathfinder projects on frailty

10. Monitoring quality and evaluating value/cost-effectiveness

Use the **Older People's Health and Wellbeing Profile**: a tool that enables identification, comparison and monitoring of trends through 41 indicators designed to support those responsible for delivering strategies for prevention and early intervention to improve health and wellbeing of older adults, including those with frailty. https://fingertips.phe.org.uk/profile/older-people-health

Monitor quality of hospital care using the Care of older people in hospital standards in Scotland that focus on initial assessment and on more complex care (rehabilitation, care transitions and discharge planning) in hospital. Older people with frailty and complex needs are the focus but function and frailty may render them applicable at a younger age.

National audits of quality of care for: Falls and Fragility Fracture ; Audit acute care of older people ; Scottish Hip Fracture Audit ; Intermediate care.

ANNEX 4. Glossary

Assessment: the action of making judgement about something. It refers in this context to screening and diagnosis of frailty.

Comprehensive geriatric assessment: a multidimensional assessment of an older person that includes medical, physical, cognitive, social and spiritual components; may also include the use of standardized assessment instruments and an interdisciplinary team to support the process.

Chronic condition: a disease, disorder, injury or trauma that is persistent or has long-lasting effects.

Disability: the umbrella term for impairments, activity limitations and participation restrictions, referring to the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors).

Drug: a chemical substance used as a medicine. It is considered that drug is a US term and that in the EU we use "medicine" or "pharmaceutical product".

Functional ability: the ability to perform activities of daily living, including bathing, dressing, and other independent living skills, such as shopping and housework. Many functional assessment tools are available to quantify functional ability.

Frailty: is a progressive age-related decline in physiological systems that results in decreased reserves of intrinsic capacity, which confers extreme vulnerability to stressors and increases the risk of a range of adverse health outcomes.

Geriatric syndrome: the multifaceted dynamics between underlying physiological change, chronic disease, and multi morbidity can also result in health states in older age that are not captured at all by traditional disease classifications and that are therefore often missing in disease-based assessments of health. These are commonly known as geriatric syndromes, although there is still some debate as to what disorders these include.

Good practice: is a practice that has been proven to work well and produce good results and is therefore recommended as a model. It is a successful experience, which has been tested and validated, in the broad sense, which has been repeated and deserves to be shared so that a greater number of people can adopt it.

Healthy ageing: process of developing and maintaining the functional ability that enables well-being in older age.

Intrinsic capacity: the composite of all the physical and mental (including psychosocial) capacities that an individual can draw on at any point in time.

Long term care: the activities undertaken by others to ensure that people with a significant ongoing loss of intrinsic capacity can maintain a level of functional ability consistent with their basic rights, fundamental freedoms and human dignity.

Management: to bring about or succeed in accomplishing, sometimes despite difficulty or hardship. In this context it refers to treatment and prevention of frailty.

Multi-morbidity: the co-occurrence of two or more chronic medical disorders in one person at the same time. It can lead to interactions between disorders; between one disorder and treatment recommendations for another; and between drugs prescribed for different disorders. As a result, the effect of multi-morbidity on functioning, quality of life, and mortality risk might be much greater than the individual effects that might be expected from these disorders.

Older person: a person whose age has passed the median life expectancy at birth. The UN agreed cut-off is 60+ years to refer to the older or elderly persons. Within the elderly population, further classification like oldest old (normally those 80+) and centenarian (100+) and even super-centenarian (110+) are also made.

Prevalence: an epidemiological measure of the proportion of cases of a disease that are present in a population at a given time, whereas incidence refers to the number of new cases that develop in a given period of time in a defined population. Incidence can also be expressed as the proportion of a population that develops the disease in a given period.

Polypharmacy: the simultaneous administration of multiple drugs (medication) to the same patient.

Reablement: is a short and intensive service, usually delivered in the home, which is offered to people with disabilities and those who have frailty or are recovering from an illness or injury. The purpose of reablement is to support people who have experienced deterioration in their health and/or have increased needs by enabling them to relearn the skills required to keep them safe and independent at home. Individuals who benefit from reablement programs often experience greater improvements in physical functioning and improved quality of life compared with using standard home care

Road Map: A roadmap is a strategic plan that defines a goal or desired outcome, and includes the major steps or milestones needed to reach it.

Road-mapping: the strategic process of determining the actions, steps and resources needed to take an initiative from vision to reality.

ANNEX 5. Advantage ja Consortium Partners

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