Symposium
Nursing Sciences and Nutrition
Together against malnutrition in older adults
*Gent University Centre for Nursing and Midwifery*
*November 26th, 2015*

**An integrated approach to nutritional frailty**
The 2 Pyramid Model in the common vision of the European Innovation Partnership on Active and Healthy Ageing

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DISMET/R&D
Federico II University & Hospital
A3 Promoter-PROEIPAHA
A Life Course Approach to Active Ageing

**Early Life**
- Growth and development

**Adult Life**
- Maintaining highest possible level of function

**Older Age**
- Maintaining independence and preventing disability

*Range of function in individuals*

*Disability threshold*

*Rehabilitation and ensuring the quality of life*

Source: Kalache and Kickbusch, 1997

**WHO Ageing and Life Course Programme**
ECOSYSTEM: a complex and changing network of interactions

FUTURE HEALTH ECOSYSTEM

KEY-WORD: SUSTAINABILITY
EU Health Programme 2014-2020

• **IMPLEMENTATION** and **ADOPTION** of **GOOD PRACTICES** on a large scale: from isolated to «MAINSTREAM»

• Reorganization of Health Care System to be more sustainable and maintain quality & services. Use of **ICT**.

• Health as a **DRIVER FOR DEVELOPMENT** not only as a burden

• Need to generate monitoring DATA of the **economic return** of innovation (avoided cost, impact on health outcome etc)

• «**Silver Economy**»: the demographic change as an opportunity for socio-economic development. Behind ageing there is a growth dynamic!

**France invests in the "silver economy"**
The national strategy includes regional deployments and applications: first initiative was launched at Ivry-sur-Seine (eastern Paris) last 1st July with the creation of the "Silver Valley". Promoted by the **cluster SOLIAGE**, the project aims at creating a specific silver sector in the eastern area of Paris.

**Fabien Verdier**
*Economy, Rights and Policy of the Age Advisor, France*
**Societal Challenges**

- Health and Wellbeing
- Food Security, Sustainable Agriculture, Forestry, Marine, Maritime, Inland Water and Bio-economy
- Secure, Clean & Efficient Energy
- Smart, Green and Integrated Transport
- Climate action, Environment, Resource efficiency and raw materials
- Inclusive, Innovative and Reflective Societies
- Secure Societies

**HORIZON 2020 BUDGET (in current prices)**

- **Industrial Leadership**
  - EUR 17.0 billion

- **Excellent Science**
  - EUR 24.4 billion

- **Societal Challenges**
  - EUR 29.7 billion

- **European Institute of Innovation and Technology**
  - EUR 2.7 billion

- **Euratom (2014-2018)**
  - EUR 1.6 billion

- **Other**
  - EUR 3.2 billion
Horizon 2020 and partnering

Public private partnerships:
- Through Joint Technology Initiatives or other formal structures (Art. 187)
- Through contractual agreements, which provide inputs for work programmes
- Only when criteria met, e.g. clear commitments from private partners

Public public partnerships:
- Through « ERA-Nets » for topping up individual calls/actions (replacing current ERA-Net, ERA-Net Plus, Inco-Net, Inno-net)
- Through participation in joint programmes between Member States (Art. 185)
- Supporting agendas of Joint Programming Initiatives when in line with Horizon 2020
- Only when criteria met, e.g. financial commitments of participating countries

European Innovation Partnerships:
- Not funding instruments, but for coordination with broader policies and programmes
European Innovation Partnerships (EIPs) are a new approach to EU research and innovation.

EIPs act across the whole research and innovation chain.

EIPs streamline, simplify and better coordinate existing instruments and initiatives and complement them with new actions where necessary, integrating them into a single coherent policy framework. Flexibility is important; there is not a 'one-size-fits-all' framework.

EIPs are launched only in areas, and consist only of activities, in which government intervention is clearly justified and where combining EU, national and regional efforts in R&D and demand-side measures will achieve the target quicker and more efficiently.
A Europe 2020 initiative: EIP-AHA
European Partnership on Active & Healthy Aging

The pilot Partnership on active and healthy ageing aims to add an average of two years of healthy life for everyone in Europe.

Maximising regional and social benefits
To avoid an "innovation divide" between the strongest innovating regions and the others.
How do things come together?

Health

Economic Growth

Silver Economy actions

Investment Plan

Digital Single Market

Scaling-up Strategy in AHA

EIP on AHA

Regions, MS, Private sector

Loukianos Gatzoulis
Economic Analysis,
DG Health and Food Safety,
European Commission
AAL Forum 2015
A3 Action Group at a glance

N. of partners: 140
N. commitments: 199
Action Areas: 6

ACTION AREAS
- Frailty in general
- Functional decline
- Nutrition
- Cognitive decline
- Physical activity
- Caregivers
EIP-AHA NUTRITION GROUP COMMON WORK

An integrated approach to nutrition for an active and healthy aging: from assessment to personalized interventions

Task 1: Assessment of malnutrition as a risk factor for frailty
Task 2: Knowledge generation on food supplements, integrators and innovative biomarkers
Task 3: Culinary approach
Task 4: Food supply, agriculture and nutritional interventions
Task 5: Dissemination, Empowerment, Training, Regulatory Issues and Cost Evaluation
Task 6: ICT support tools
Effective INTERVENTIONS should take into account the entirety of needs that influence adequacy of nutrition

- Context
- Preferences
- Sustainability
- Co-existing health conditions
**A3 Nutrition AA Common track**

**Meetings 2015**

**WORKSHOP**
«Management and optimization of frailty by the EIP-AHA: screening, early diagnosis, and integrated care”
Rome, May 20th 2015
Ministry of Health, Rome

Workshop
An integrated approach to active and healthy living:
the possible synergies of the nutritional interventions
Padiglione Italia
Auditorium
October 20th, 2015
EXPO, Milan

**Papers 2015**

- “An integrated nutritional approach as a sustainable tool to prevent malnutrition in older people and promote active and healthy ageing”.
The EIP-AHA Nutrition Action Group.
Conference Papers in Science, 2015

- Special Issue: Active and Healthy Ageing and Independent Living
Editors: Maddalena Illario, Miriam Vollenbroek-Hutten, David William Molloy, Enrica Menditto, Guido Iaccarino, and Patrik Eklund
Journal of Aging Research, 2015
A3 Nutrition AA Common track
ICT tools

ICT PLATFORM
• The Modular Gastrological Platform
  offers a number of services in the cloud, that support integration with other
  software and hardware, and can be consumed by various roles like chefs,
  dieticians, caretakers, visitors, management, suppliers, nurses, moderators and
  others.
• Through the platform’s portal and client applications for screening and monitoring,
  all actors can interact with each other, resulting in an ECO-system that is supported
  by the actors through collaboration and sharing

TOOLS
• Pt-Global app: multilingual app (aiming at 20+ languages), based on Scored
  Patient-Generated Subjective Global Assessment (PG-SGA, © FD Ottery 2001,
  2006), a paper based validated instrument to screen, assess and monitor
  malnutrition and triage for interventions.
• I-ACE Interactive Lifestyle Assessment, Counseling and Education is an ICT tool for
  delivering nutritional interventions to prevent/manage chronic disease and frailty,
  which can be adapted for multiple population groups and used across the life span
  to increase the quality of life and healthy life years.
• ASL Napoli 1 Centro: in the process of integrating ICT services with malnutrition
  screening tools and with integrated care support tools (Perssilaa/Beyond Silos)
  with a focus on DEMENTIA
FUNCTIONAL FOODS AND SUPPLEMENTS

Innovative products

- Vit. D fortified extravirgin olive oil (Mataluni)
- Flavonoid fraction of Bergamot juice
- White, green, and black tea polyphenols.
- Polyphenolic compounds extracted from green lettuce (Lactuca sativa L.; var. Maravilla de Verano).
- Canned bluefin tuna
- Polyphenols from Annurca apple (M. pumila Miller cv Annurca)
- Lyophilised Aglianico wine (lioAW)
- Lyophilised red grape juices (lioRGJ)
- Monofloral honeys produced by the Sicilian black honeybees
Mediterranean Diet in Italy in the ‘50

“... a hearty dish of beans and short lengths of macaroni (pasta e fagioli); ... lots of bread (never served with any kind of spread); ... great quantities of fresh vegetables; ... a modest portion of meat or fish (perhaps twice a week); ... wine; ... always fresh fruits for dessert.

“.... for the possible prevention of CHD, it would be hard to do better than imitate the diet of the common folk of Naples in the early 1950s”

Ancel and Margaret Keys.

*HOW TO EAT WELL AND STAY WELL: THE MEDITERRANEAN WAY*

New York: Doubleday; 1975
Lyon Diet Heart Study

**Methods (schematic)**

- **Randomization**
  - Experimental diet
    - Mediterranean diet including free canola oil based margarine
  - y. 1988
    - 27 months randomized period
  - 19 months open follow up (delay in stopping)
- **Control diet**
  - normal French Diet
- Premature discontinuation (!)

*Note: de Lorgeril et al., Lancet 1994; 343(8911):1454-9*
Lyon Diet Heart Study

605 patients following a MI randomized to a Mediterranean* or Western** diet for 4 years

A Mediterranean diet reduces cardiovascular events

*High in polyunsaturated fat and fiber,
**High in saturated fat and low in fiber
PREDIMED Results

- 30% risk of CV disease
- 52% risk of diabetes
through reduced high blood pressure, dislipidemia, diabetes, obesity

(statins reduce CVD by 27% and Metformin reduces diabetes by 30%)

(Taylor et al, 2013; Knowler et al, 2002)
Decline of the Mediterranean diet at a time of economic crisis. Results from the Moli-sani study

M. Bonaccio a,*,1, A. Di Castelnuovo a,1, A. Bonanni b,1, S. Costanzo a,1, F. De Lucia c,1, M. Persichillo a,1, F. Zito d,1, M.B. Donati a,1, G. de Gaetano a,1, L. Iacoviello a,1

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Effective INTERVENTIONS should take into account the entirety of needs that influence adequacy of nutrition

- Context
- Preferences
- Sustainability
- Co-existing health conditions
17 U.S.acli gyms offer activities dedicated to over sixties all over the country

**Healthy life style promotion**

- 2 days cooking lab
- 15 Mediterranean diet orginal recepies developed

Translation in french and english available starting october 31st on:
Marconi comprehensive Institute , Hotel School Ferrari and ASL Salerno web-site

**Nutritional assesment of:**
- 70 subjects >60
- 30 Alzeimer patients through MNA questionnaire

**3 Healthy eating training sessions during school year 2013-2014:**
- 350 students, 120 family members and 20 Alzheimer patients

**Engagement into physical activity**
- Yes 18%
- No 57%
- Seldom 10%

**Frecuence of diabetes**
- YES 8,6%
- NO 82,6%

**Sport and Health**

In 2015 USacli has organized 47 «walk for health» of all over Italy.

**Results:**
A-All subjects display a WB score boarder line between moderate distress and well-being state.
B-Females display a WB score lower than males.
C-Participants display a WB score significantly higher than non participants.

It works!
XI World Day against High blood pressure:
May 16th 2015

Mutiple sites involved:
Salerno and Castelnuovo Cilento

- Screening of blood pressure
- Lifestyle questionnaires
- Nutritional questionnaires
- 200 screenings for metabolic parameters
- Traditional lunch on Mediterranean Diet
- Cooked by the students of the 'Istituto Alberghiero “Ancel Keys” of Castelnuovo Cilento
PERSSILAA in the EIP-AHA context
Community-based nutritional approach: Health and Nutrition Focus Groups

- Health/ICT literacy FOCUS GROUP
- 170 OLDER ADULTS ENROLLED SO FAR

To fill in health and ICT literacy gaps, and facilitate adoption of ICT tools for healthy nutrition

- Health/ICT literacy FOCUS GROUP
- 170 OLDER ADULTS ENROLLED SO FAR
Future Opportunities of Nutritional Approaches for Active and Healthy Ageing

- Implementing collaborative approaches to primary nutritional interventions targeting different populations in different settings
- Taking advantage of ICT support and tools
- Exploiting EXISTING EXPERIENCES and GOOD PRACTICES
- Taking into account locoregional contextual factors and the richness of cultural backgrounds and traditions: food is a very strong driver for health and ICT literacy
- International training opportunities to implement novel, integrated, multidisciplinary approaches
The EIP-AHA experience for the Nutrition A3 group

- Is providing opportunities for low maturity models to join, improve and connect
- Is providing opportunities for high maturity models to build synergies, scaling up and push innovation forward
- Is breaking down barriers across sylos on the locoregional, national and international levels

Thank You!