



Addressing public health and chronic diseases – the contribution of Research

Health Directorate
DG Research & Innovation
European Commission

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Overview

- The challenge posed by chronic diseases
- Research across the continuum
- Results ready for uptake
- The importance of partnerships
- Towards a health systems and services research agenda

The burden

Chronic non-communicable diseases (NCDs) cause **86%** of all deaths in Europe

20 – 40% of the EU population aged ≥ 15 years report a longstanding health problem

1/4 currently receives medical long-term treatment

2/3 of those at pensionable age have ≥ 2 chronic conditions

Chronic care accounts for **70-80%** of European health care costs (€700 billion)

Working on a continuum

- Better understanding of disease
- Health promotion and disease prevention
- Diagnostics & therapeutics
- Health policy research
- Implementation research

Health promotion and disease prevention

On-line profiler for dementia



Created an online profiler to be filled out by a patient in their 40's and 50's at a doctor's office.

<http://www.inmindd.eu/>

The patient receives a LIBRA (lifestyle for brain health) score and a personalised plan how to prevent dementia through a healthy lifestyle.

EuroFIT **health promotion programme** for football fans



<http://eurofitfp7.eu/>



- an innovative programme with 15 champion league football club to inspire low socio-economic middle-aged football fans to adopt healthy life-style (physical activity, nutrition)
- volunteers have to upload their personal data, then if they correctly follow the program after 12 months they will lose five percent of their weight
- 'EuroFIT approach' license
- Rolling out EuroFIT approach: partnership with Portugal (Health ministry and Portuguese Football Federation)

Results

Validated test Mamaprint : Likelihood of breast cancer recurrence

FP6, 2002-2006

€ 7 million

Validation of
the 70-gene signature

Horizon 2020, 2014-2020

€ 4 million

2015: MammaPrint
final clinical utility



HEALTHCARE PROFESSIONALS

PATIENTS



2002: 70-gene
signature published

2007: FDA
approves
MammaPrint

2007

2011

MINDACT trial : Microarray In Node
negative Disease may Avoid
ChemoTherapy

MINDACT

Leveraged funds:
€ 43 million

MammaPrint reduced
chemotherapy prescription post-
surgery by 46%

Phase III CT 6693
women enrolled

- MammaPrint test, is an early stage breast cancer genomic
- Supports physicians to decide which patient can avoid chemotherapy after breast cancer surgery
- test is now reimbursed in some countries
- ready to be taken up in Member States

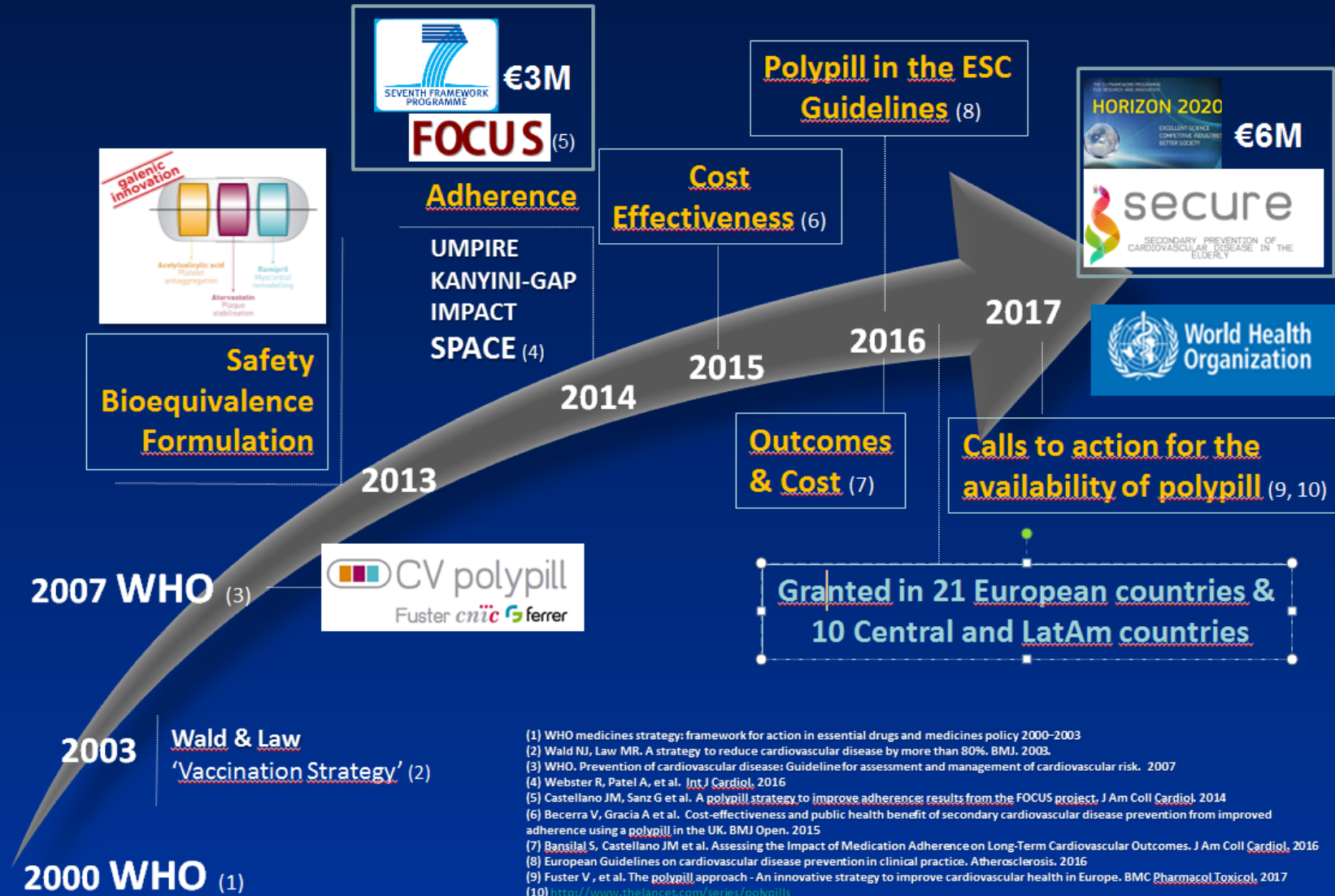
THE MINDACT TRIAL

Results

The polypill - simplifying adherence and improving CVD management



EVOLUTION OF CNIC-FERRER PROJECT & THE POLYPILL CONCEPT



- (1) WHO medicines strategy: framework for action in essential drugs and medicines policy 2000-2003
- (2) Wald NJ, Law MR. A strategy to reduce cardiovascular disease by more than 80%. *BMJ*. 2003.
- (3) WHO. Prevention of cardiovascular disease: Guideline for assessment and management of cardiovascular risk. 2007
- (4) Webster R, Patel A, et al. *Int J Cardiol*, 2016
- (5) Castellano JM, Sanz G et al. A polypill strategy to improve adherence: results from the FOCUS project. *J Am Coll Cardiol*. 2014
- (6) Becerra V, Gracia A et al. Cost-effectiveness and public health benefit of secondary cardiovascular disease prevention from improved adherence using a polypill in the UK. *BMJ Open*. 2015
- (7) Bansilal S, Castellano JM et al. Assessing the Impact of Medication Adherence on Long-Term Cardiovascular Outcomes. *J Am Coll Cardiol*, 2016
- (8) European Guidelines on cardiovascular disease prevention in clinical practice. *Atherosclerosis*, 2016
- (9) Fuster V, et al. The polypill approach - An innovative strategy to improve cardiovascular health in Europe. *BMC Pharmacol Toxicol*. 2017
- (10) <http://www.thelancet.com/series/polypills>

Results



Clinical guidelines for breast cancer screening

JRC/ Health, Consumers and Reference Materials

European Commission Initiative on Breast Cancer (ECIBC)

ECIBC is a person-centred initiative to improve breast cancer care. The JRC, with ECIBC, is developing the most up-to-date evidence-based recommendations on screening and diagnosis, with a platform of trustworthy guidelines for the whole care pathway.



DG RTD/Public Health Research



DECIDE
GRADE

GRADEpro GDT

A tool for guideline development



<https://gradepro.org>

<http://www.decide-collaboration.eu/>

<http://ecibc.jrc.ec.europa.eu/>



DG SANTE/Public health



Member States



European
Commission



1. integrated care programs for persons with multi morbidity
2. cost-effective intervention program for diabetes



<http://www.selfie2020.eu/>

SELFIE aims to improve patient-centred care for patients with multi morbidity through researching the implementation of the integrated chronic care model within the social and health care systems



<http://feel4diabetes-study.eu/>

Feel4Diabetes aims to develop, implement and evaluate a scalable intervention program for vulnerable families to prevent type 2 diabetes across Europe communities and invite the parents to attend 'out of school' counselling sessions, in order to further support them in adopting a healthier lifestyle for them and their children.





Grants will be signed this year:

- Scaling-up of evidence-based health interventions at population level for the prevention and management of hypertension and/or diabetes
- Novel patient centred approaches for survivorship, palliation and/or end of life care
- HTA research to support evidence based health care



The importance of partnerships

GLOBAL

ALLIANCE FOR

CHRONIC

DISEASES





- Focus on low and middle income countries or in vulnerable populations in high income countries
- Generate expertise in implementation research & scaling up interventions in NCDs



14 Members so far



Towards a Joint European Initiative: Health Systems and Services Research

- Umbrella initiative which will ensure funding and coordination of projects on health systems and services research in the future
- Implementation and transferability of innovative solutions & research new solutions able to respond to anticipated challenges.
- The program should be beneficial to at least three perspectives:
 - a **policy perspective**, by helping decision makers to take the right direction.
 - a **funding perspective**, to align limited resources and avoid duplication,
 - a **scientific perspective** as it can help the EC, the Member States and the researchers to best incorporate this “delivery ” element into translational research designs