

# EFFICHRONIC: framework, objectives and methodology

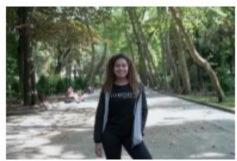














































We discovered a hidden potential which can be used in a very positive way.





### **EFFICHRONIC**

Health and Social Care systems reaching out to vulnerable populations with chronic conditions Enhancing health systems suitability by providing cost-efficiency data of evidenced based Interventions for chronic management in stratified population based on clinical socio-economic determinants of health

"This presentation is part of the project / joint action '738127 / EFFICHRONIC' which has received funding from the European Union's Health Programme (2014-2020)."











# EFFICHRONIC Overal Project Approach

- **Duration:** 3 years (2017 2020)
- 5 European regions: Asturias, Montpellier, Rotterdam, Genoa and UK
- Pillars: Social determinants of health
  - Chronic conditions
  - Salutogenesis
  - Community participation
  - Intersectoral collaboration







# Objectives:

Reduce the burden of chronic diseases and increase sustainability of the health system

## **Specific objectives**

- Identify and stratify vulnerable population groups
- Design specific **recruitment strategies**
- Implement the CDSMP programme in all involved regions
- Elaborate impact assessment framework and evaluate results
- Define policy recommendations and guidelines for scaling-up









### **EFFICHRONIC**

More information



EFFICHRONIC study protocol: a non-controlled, multicentre European prospective study to measure the efficiency of a chronic disease self-management programme in socioeconomically vulnerable populations 8

D An L D Boone<sup>1</sup>, Marta M Pisano-Gonzalez<sup>2</sup>, Verushka Valsecchi<sup>3</sup>, Siok Swan Tan<sup>4</sup>, Yves-Marie Pers<sup>3</sup>, Raquel Vazquez-Alvarez<sup>2</sup>, Delia Peñacoba-Maestre<sup>2</sup>, Graham Baker<sup>5</sup>, Alberto Pilotto<sup>6</sup>, Sabrina Zora<sup>6</sup>, Hein Raat<sup>4</sup>, Jose Ramón Hevia-Fernandez<sup>1</sup> on behalf of the EFFICHRONIC Consortium





# EFFICHRONIC Phases







## **EFFICHRONIC**

Implementation

# **EFFICHRONIC**

Chronic disease condition

PHASE 1

Recruitment

implementation phase:

multiplyiers

· associations

social workers

 other stakeholders relatives

#### Social Determinants

- · Low education level
- Low-income level
- Social exclusion risk

efore

· Low social support and limited social network coverage

160 leaders will be trained 32 per country

Spain, France, Italy, United Kingdom and Netherlands

#### PHASE 2

Training for leaders

during

- empowerment
- · self efficacy
- · positive health, etc

#### PHASE 3

**Implementation** 

- 2500 patients
- · 500-750 patients per country



#### Contents

- Adherence
- · Diet, exercise, stress management
- · Daily tasks and social life
- · Communication and use of Healthcare System



after 

PHASE 0 Evaluation

These groups will help EFFICHRONIC to recruit

patients, including leaders, for the

psysicians and practicioners

Co-funded by the Health Programme



# Methodology

Target population



2000 people from vulnerable population

groups (400/country)





# Methodology

# Target population

#### vulnerable definition:

"not fully socially integrated and risk of falling into social exclusion"

- Vulnerability: socio-economic, cultural or educational
  - 1. People with a chronic condition
  - Elderly people living alone or in a nursing home
  - Ethnic minorities
  - Immigrants
  - Low socio-economic status
  - Prisoners
  - 2. Socially isolated caregivers



# Local matrix

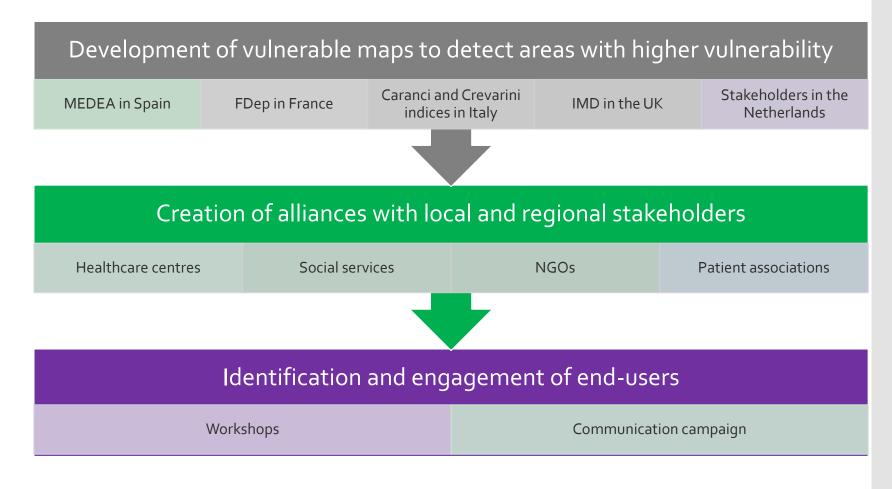
TAROFT OROUG	AODEED OTDATEOUES	OFFICANT ADODATIONS FROM					
TARGET GROUP	AGREED STRATEGIES	SEEK COLLABORATIONS FROM					
Individuals living	In the geographical areas identified in Phase I of	Local Retail Pharmacy Association (Colegio Oficial  Formula (Visua Astrono COE)					
alone	Effichronic, proceed to identify and get in touch with:	Farmacéuticos Asturias, COF)					
	Bakeries	Each Retail Pharmacy of the selected neighbourhood					
	Parishes (and parish Caritas)	"Párrocos" (parish priest) + Cáritas parroquial     Cáritas Asturias					
	Retail Pharmacy (local Chemist)						
	Health Centres: Primary Care Centres	<ul><li>Health Centre District Managers</li><li>Primary Care centre GPs and nurses</li></ul>					
	(General Practitioners and nurses),						
	Hospitals, nurseries and day care centres.						
		Day centres ("Centros de dia")					
Informal Caregivers	In the geographical areas identified in Phase I of	Local Retail Pharmacy Association (Colegio Oficial					
	Effichronic, proceed to identify and get in touch with:	tify and get in touch with: Farmacéuticos Asturias, COF)					
	Bakeries	<ul> <li>Each Retail Pharmacy of the selected neighbourhood</li> </ul>					
	Parishes (and parish Caritas)	"Párrocos" (parish priest) + Cáritas parroquial					
	Retail Pharmacy (local Chemist)	Cáritas Asturias					
	Health Centres: Primary Care Centres	Primary Care District Managers					
	(General Practitioners and nurses),	Health Centre District Managers					
	Hospitals, nurseries and day care centres.	Primary Care centre GPs and nurses					
Prisoners	Identification and selection at the Villabona Prison	Villabona Prison Director and management					
Legal migrants	Decide whether to access through any (or all) of the	Decide accordingly which organization to approach					
	three organizations suggested – Asturias Acoge,						
	ACCEMM or Cruz Roja Española Asturias						
Gypsy minority	Decide whether to access through the suggested	Decide accordingly which organization to approach					
	organizations and which one should this be -						
	UNGAS or Fundación Secretariado Gitano						
Old People living in	Approach through the Local Councils	Ayuntamientos					
rural areas	(ayuntamientos). The Rural Women Association	Rural Women Association					
	could be a key partner.						
	*To consider: broadcasting adverts on the local TV						
	and radios						
New vulnerable	Council (municipality) care services or Food Banks	• Cáritas					
families	*To a contident on the classification of the control of the contro	Banco de Alimentos Asturias					
	*To consider: schools of the pre-selected areas						







#### RECRUITMENT STRATEGIES



project



# Recruitment Strategies Communication & Dissemination Plan

INDIVIDUAL ENGAGEMENT POPULATON



Hard-to-reach and vulnerable populations are challenging to engage.





# Target Audience

# Communication focused on the recruitment of individuals

Communication focused on dissemination of the results of the project





# Target Audience for the recruitment

#### Primary target groups:

Individuals suffering from chronic diseases Caregivers

#### Secondary target groups:

Relatives / informal caregivers

#### Tertiary target groups:

Health professionals at hospitals

Community workers

Social workers

Civil Society: NGOs and associations

Pharmacies

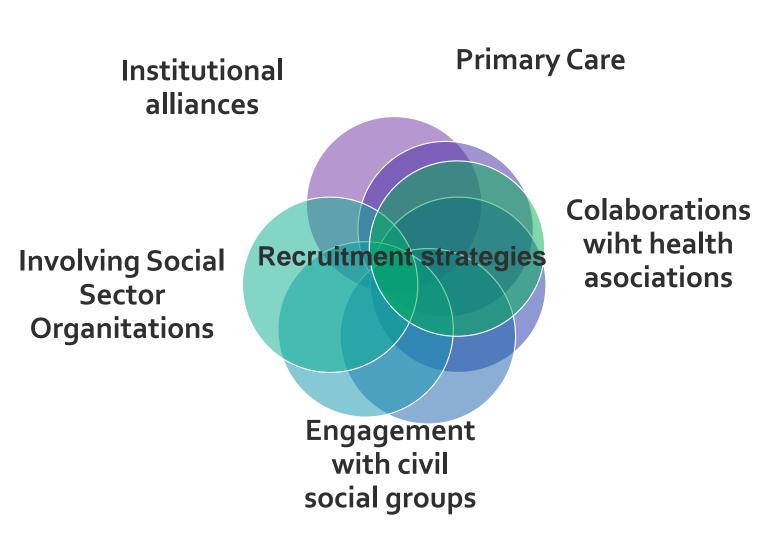
City councils

Prison

Volunteer organizations











Meetings with Stakeholders and intermediaries

Associations	117	
Social workers	152	
Health professionals	724	
Researchers	340	
Public Administrations	62	







**INDIVIDUAL STRATIFICATION: SELFY-MPI** 

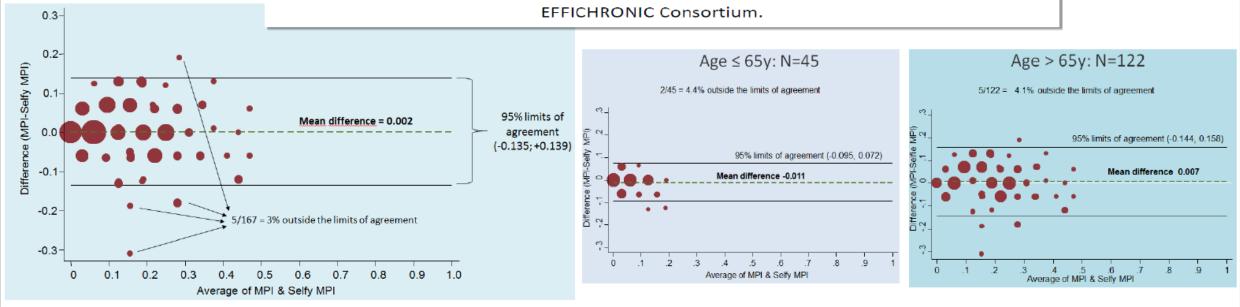






# Development and validation of a self-administered Multidimensional Prognostic Index (SELFY-MPI) to predict negative health outcomes in community-dwelling persons

Alberto Pilotto<sup>1</sup>, Nicola Veronese<sup>1</sup>, Katerin Leslie Quispe Guerrero<sup>1</sup>, Sabrina Zora<sup>1</sup>, An LD Boone<sup>2</sup>, Matteo Puntoni<sup>3</sup>, Angela Giorgeschi<sup>1</sup>, Alberto Cella<sup>1</sup>, Ines Rey Hidalgo<sup>2</sup>, Yves-Marie Pers<sup>4</sup>, Alberto Ferri<sup>1</sup>, J.R. Hevia Fernandez<sup>5</sup>, Marta Pisano Gonzalez<sup>6</sup> on behalf of the FEFICHRONIC Consortium.



**In conclusion**, the SELFY-MPI can be used as a predictive tool having a strong validity when compared with the MPI. These findings were not influenced by age suggesting that this tool can be used indifferently in younger and older people. Future studies are needed to confirm these findings and to verify if the SELFY-MPI has the same accuracy as the MPI in predicting death and other negative outcomes.

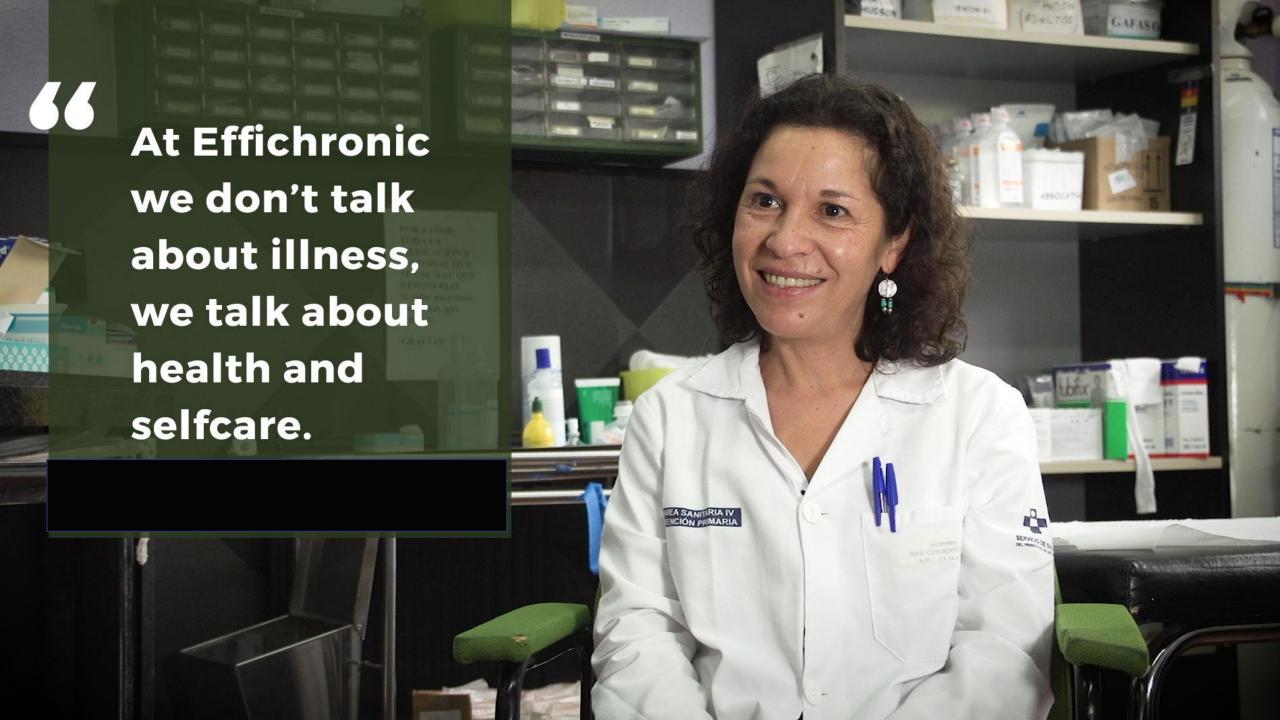




**EFFICHRONIC** 160 leaders will be trained Social Determinants Chronic disease 32 per country · Low education level Low-income level condition Social exclusion Spain, France, Italy, United Kingdom and Low social support and limited Netherlands social network coverage Phases PHASE 3 PHASE 2 Training for leaders **Implementation**  2500 patients PHASE 1 empowerment · 500-750 patients per · self efficacy Implementation country Recruitment · positive health, etc These groups will help EFFICHRONIC to recruit Content patients, including leaders, for the implementation phase: , exercise, stress management multiplyiers Ev psysicians and practicioners aily tasks and social life social workers Communication and use of associations before during Healthcare System after · other stakeholders · relatives PHASE 0 Evaluation









# Methodology

## CDSMP (1)

# Chronic Disease Self-Management Program CDSMP

- Stanford University / SMRC
- Implemented all over the world
- Evidence-based
  - increase in self-management
  - better health outcomes
  - improved access to services



- Practical workshops: 2,5 h once a week, during 6 weeks
- Community-centered, intersectoral





# CDSMP is based on a psychology theory

CDSMP developed by Prof. Bandura of Stanford University

Originator of social learning and vicarious learning theories

Confidence in ability
Outcome expectancy

+

Behavioural changes







# Methodology

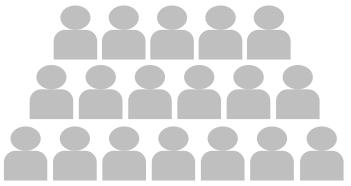
peer to peer education

CDSMP (3)









Patiens and caregivers

- T-trainers: Spain resources
- Master trainers: UK, Italy, NL and Spain
- Leaders: Leading a workshops EFFICHRONIC=36 per country

Patiens and cargivers:
end-users

EFFICHRONIC=400 per country





# Methodology

CDSMP (4)



#### Level 1

#### Disengaged and overwhelmed

Individuals are passive and lack confidence. Knowledge is low, goal-orientation is weak, and adherence is poor. Their perspective: "My doctor is in charge of my health."



#### Level 2

#### Becoming aware, but still struggling

Individuals have some knowledge, but large gaps remain. They believe health is largely out of their control, but can set simple goals. Their perspective: "I could be doing more."



#### Level 3

#### Taking action

Individuals have the key facts and are building self-management skills. They strive for best practice behaviors, and are goal-oriented. Their perspective: "I'm part of my health care team."



#### Level 4

#### Maintaining behaviors and pushing further

Individuals have adopted new behaviors, but may struggle in times of stress or change. Maintaining a healthy lifestyle is a key focus. Their perspective: "I'm my own advocate."

#### **Increasing Level of Activation**

©2016 Insignia Health. Patient Activation Measure® (PAM®) Survey Levels. All rights reserved.

Greene and Hibbard (2011) "Why Does Patient Activation Matter? An Examination of the Relationships Between Patient Activation and Health-Related Outcomes,"



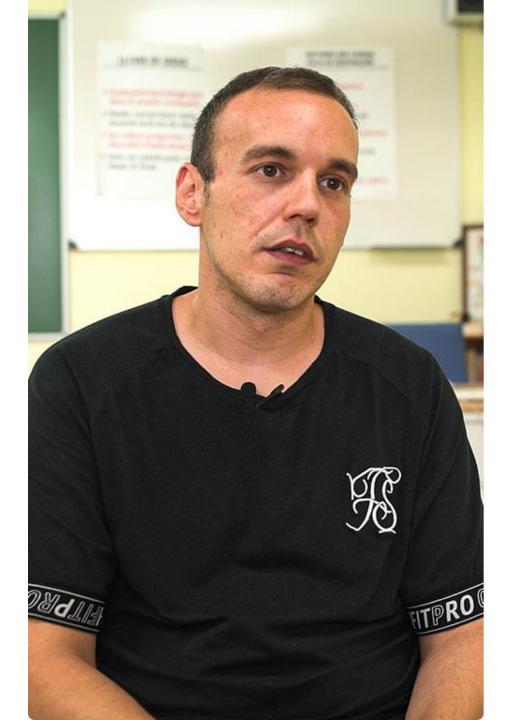


Phases

Implementation







I have learned to improve communication, this can be applied when you go to the doctor, to look for a job or to have a conversation with your family or friends.





#### 236 workshops

# Implementation CDSMP







#### 24months



### **RESULTS**

	Spain	France	UK	Netherlands	Italy	TOTAL
Nº workshops	85	29	40	51	31	236
Engaged participants	1,131	231	577	612	400	2,951
Participants finished the CDSMP	932	174	502	425	284	2,317
Drop-out rate	18%	13%	13%	31%	29%	21%



- Ethnic minorities
- Migrants and refugees
- Inmates
- Older people living alone

- Older people living in institutions
- People with few economic resources



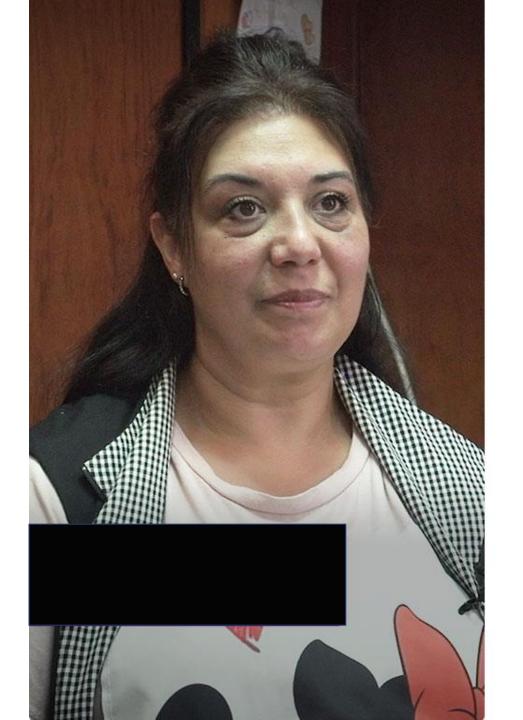


Phases

Implementation







The program motivated us to take care of ourselves and make the necessary changes to improve our health.

This has given us confidence to improve ourselves. What we cannot accomplish yet because we are in here, we keep it for the day we go out.





## Objectives of the evaluation

• Effects on the **health** of the participants

• Effects of **health literacy** and communication with health workers

 Social and health costs and the costeffectiveness

 qualitative evaluation of the satisfaction of the participants and the acquisition of specific tools of the program







#### **EFFICHRONIC**

More information



#### International Journal of Environmental Research and Public Health

Evaluation Design of EFFICHRONIC: The Chronic Disease Self-Management Programme (CDSMP) Intervention for Citizens with a Low Socioeconomic Position

```
by Osiok Swan Tan 1,* 0, Marta M Pisano 2, An LD Boone 3, Q Graham Baker 4, Q Yves-Marie Pers 5, Alberto Pilotto 6, Verushka Valsecchi 5, Q Sabrina Zora 6, Q Xuxi Zhang 1, Q Irene Fierloos 1 and Q Hein Raat 1
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Int. J. Environ. Res. Public Health 2019, 16(11), 1883; https://doi.org/10.3390/ijerph16111883

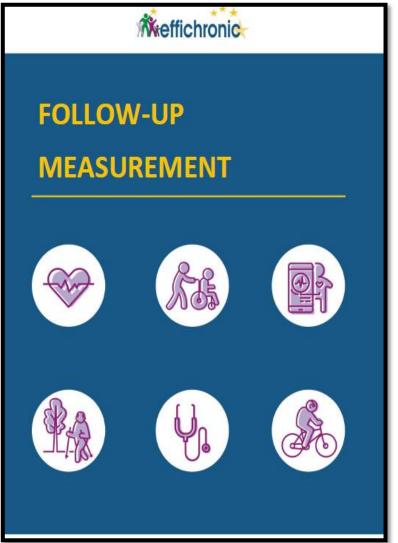


#### Overall Project Approach



QUESTIONNAIRES EVALUATION









## Data collection overview







2759

Engaged participants (engaged = attended at least 1 session) 2277

Completed participants (=attended at least 4 of the 6 sessions)

**1825** valid baseline questionnaires

1189 valid follow-up questionnaires (up to Aug 1st)



#### Participants characteristics



67.5% female 32.5% male



Mean: 60.9 y

SD: 14.9

#### Examples of differences between the 5 pilot sites:



Younger participants in **NL** and **Fr** 



Female participants:

50% in **UK** to 80% in **It** 



Participants living alone:

around 25% in **UK + Sp** to 46% in **Fr** 



Education and income:

lowest level in **Sp** 



Not working participants:

around 55% in **NL + It** to 21% in **Fr** 









Reduction of Sedentary lifestyle



Decreased

**Alcohol consumption** 



Fewer

**Depressive symptoms** 

	n (paired)	Baseline	Follow-up	P-value
Self-management				
CDSE-6 (score range 1-10)	1073	6.70±2.15	6.99±2.06	( <.001
Lifestyle factors				
Physical exercise				
Stretching/strengthening (min/wk)	1091	35.58±61.14	36.58±56.61	0.571
Aerobic exercise (min/wk)	1173	150.82±123.14	153.57±126.44	0.427*
Walk for exercise (min/wk)	1143	95.25±66.78	92.82±66.87	0.229*
Swimming or aquatic exercise (min/wk)	1048	8.40±30.47	11.16±34.96	0.008
Bicycling (min/wk)	1061	22.78±48.62	25.22±51.98	0.052
Other aerobic exercise (min/wk)	1068	30.24±61.89	29.27±61.69	0.633
Sedentary behaviour (week day) (min/wk)	1069	5.99±3.31	5.65±3.07	<.001
Sedentary behaviour (weekend day) (min/wk)	1075	5.78±3.23	5.44±2.86	<.001
Fruit, >1 portion/d	1171	609(52.01)	582(49.70)	0.109
Vegetables, >1 portion/d	1162	438(37.69)	447(38.47)	0.633
Having breakfast, >5 d/wk	1141	918(80.46)	920(80.63)	0.940
Alcohol, 2 times/wk or more	1168	282(24.14)	246(21.06)	0.002
Smoking, yes	1147	157(13.69)	156(13.60)	1.000
Depressive symptoms (PHQ-8 ≥10)	1028	248(24.12)	210(20.43)	0.007
Sleep problems (score range 0-10)	1161	4.41±3.02	4.44±3.06	0.760
Fatigue (score range 0-10)	1150	4.77±3.04	4.67±2.98	0.160
Medication adherence (SMAQ), no adherence	877	501(57.13)	479(54.62)	0.189
Health-related Quality of Life (HR-QoL)				
PCS Score (SF-12; score range 0-100)	1006	43.7±11.3	44.7±10.9	<.001
MCS Score (SF-12; score range 0-100)	1006	43.6±10.1	45.0±9.4	×.001
EQ-5D-5L utility values	1147	0.69±0.26	0.71±0.26	0.002
EQ-5D-5L Overall health (score range 0-100)	1136	67.81±21.47	70.55±20.25	<.001



#### Health literacy



Communication with healthcare providers



Personally experienced

	n (paired)	Baseline	Follow-up	P-value
Health literacy (HLQ)				
Ability to find good health information (score range 1-5)	721	1.93±0.81	1.87±0.74	0.060
Understand health information well enough to know what to do (score range 1-5) $^{\ddagger}$	737	1.94±0.77	1.84±0.73	0.001
Communication with healthcare providers (score range 0-5)	962	2.05±1.24	2.22±1.31	<.001
Prevalence of experienced medical errors				
Your healthcare provider did not explain this in a way you understood, % yes	973	324(33.30)	283(29.09)	0.017
Personally experienced a medical error in your own care, % yes	908	245(26.98)	170(18.72)	<.001
The medical error is a minor/major problem for you, % yes	143#	122(85.31)	115(80.42)	0.248

The research shows a saving of 780 euros per person in social and health costs.



## Healthcare perspective

This perspective takes <u>healthcare costs</u> into consideration

Table on the resource use of participants of the CDSMP intervention at To and T1

	n (paired)	То	T1	P-value*
Doctor appointments	1120	4.35±5.98	3.17±4.52	<0.001
Hospital emergency room visits	1139	0.42±2.07	0.24±0.77	0.002
Hospitalised nights	1111	0.83±4.12	0.48±2.77	0.005

Calculations using unit prices of the three resources →
Estimated saving of healthcare costs →
Average saving for the 5 pilot sites was 307 euro per participant



## Societal perspective

- This perspective takes <u>productivity losses</u> into account
  - Lost productivity at paid work due to absenteeism
  - Lost productivity at unpaid work

#### Paid work:

Calculations using number of hours absent from work due to illness & hourly cost prices →
Estimated saving of productivity costs →

Average saving for the 5 pilot sites was 206 euro per participant

#### Unpaid work:

Calculations using number of hours required to take over the unpaid work unable to do & hourly cost prices →
Estimated saving of productivity costs →

Average saving for the 5 pilot sites was 267 euro per participant



#### **Combined:**

Average saving for the 5 pilot sites was 473 euro per participant



#### both perspectives + net costs

#### Healthcare perspective:

• The weighted average shows a decrease in healthcare costs (=saving) of 307 euro per participant

#### Societal perspective:

• The weighted average shows a saving in productivity costs (=saving) of 473 euro per participant

#### Combined:

• The weighted average shows a saving in productivity costs (=saving) of 780 euro per participant

#### Costs of implementation of the CDSMP intervention:

• estimated to be 60 euro per participant

#### Net savings of the CDSMP intervention:

780 - 60 = **720 euro** per participant



Qualitative evaluation

Satisfaction of the participants

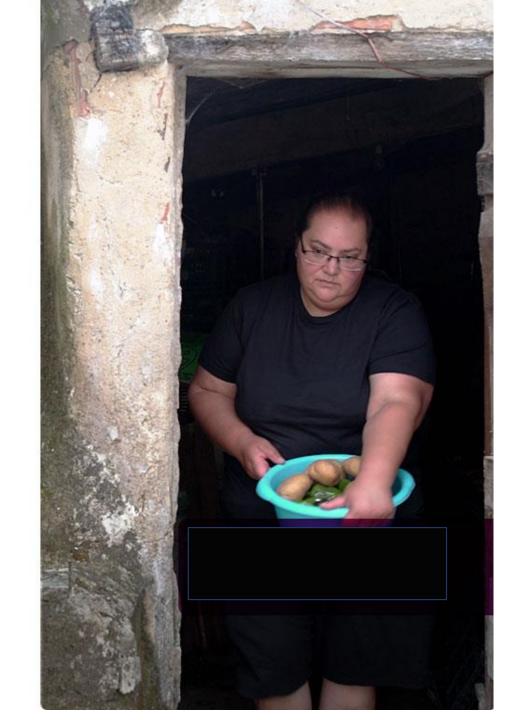
Acquisition of specific tools of the program

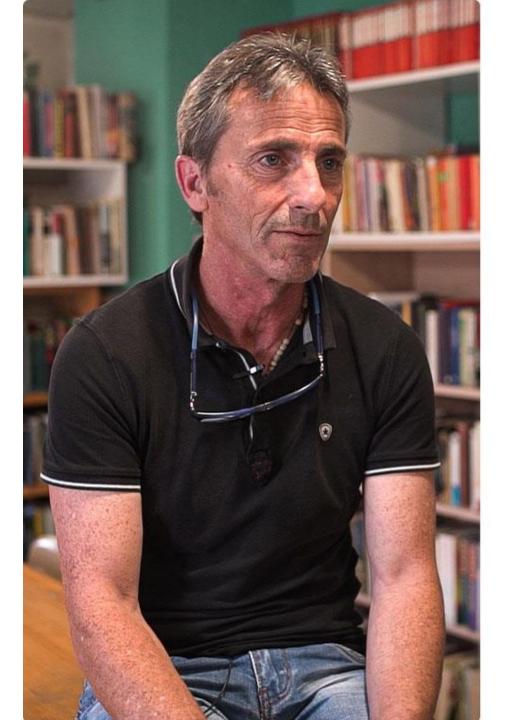


80% perceive that health problems no longer control their life.

More than **70%** take one or more daily actions to improve their health.

There were women from 25 to 70 years old and it has been very good for all of us, the management of emotions and healthy habits have been very useful.





If you want to achieve something, you have to make a serious commitment.
Colleagues support motivated me a lot.





## Main achievements



- Great and wide network of stakeholders reached: Public Administrations, health professionals, social workers, researchers, etc.
- Achievement of the expected sample (with surplus!)
  to be involved at the CSMP.
- Scientific outputs: 3MsD thesis, 5 scientific papers and synergies with other 7 EU funded projects.
- EFFICHRONIC network as an opportunity to raise awareness about COVID-19.

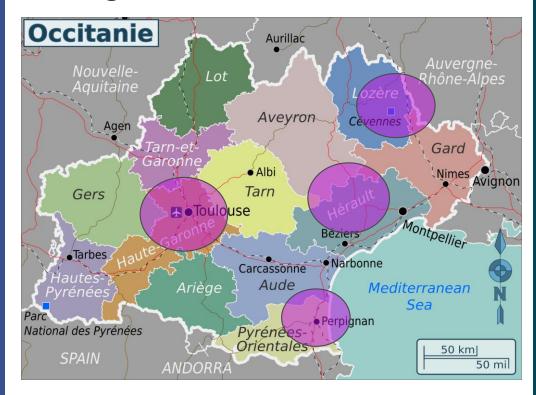




## Main achievements



• Expression of **interest** on EFFICHRONIC work by 15 regions.

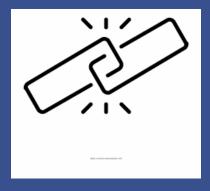








#### Weaknesses



- Lack of resources: time, staff, resources (for contracting, sub-contracting, offering travel vouchers...)
- Too many questionnaires and evaluation instruments; evaluation "burden" (for participants)
- Lack of qualitative instruments measures
- Hospitalocentric\* Model; paternalistic or authoritarian care models



# Our fascinating journey: lessons learnt

#### A policy-oriented challenge

How can we actually reach out to vulnerable people with chronic conditions who do not come to see us? How Primary Care can contribute to?





## EFFICHRONIC's 5 policy innovations



- 1: Our focus on vulnerable hard-to-reach people with chronic conditions.
- 2: The combination of population and individual recruitment strategies.
- 3: Key intersectoral alliances with many stakeholders.
- **4:** Creativity in building recruitment strategies & the dynamics of the workshops.
- 5: EFFICHRONIC is a cost-effective intervention.





# PRIMARY CARE contribution to EFFICHRONIC model

#### Management boards

PC is ideal for the coordination role to foster stakeholders alliance and implement recruitment strategies

Aligment & contribution to regional/national Health policies.

Support to and leverage of the patient-centred vision of care

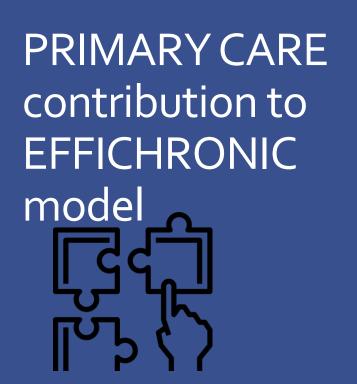
Commitment to provide the required resources

Engagement in the evaluation of the process and results of the programme in the specific context.

Clear pay back: reduction of health inequalities, increased health and wellbeing of citizens, clear cost-effectiveness (reduce health resources consumption)







#### Frontline professionals:

Referent actors, whose messages can engage and empower vulnerable patients in the programme.

Prescription of social activity, including CDSMP workshops

Knowledge and skills to recruit key players such as potential leaders and trainers from different social groups (social workers in primary care could be essential).

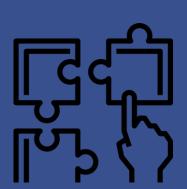
Sustainability and continuity to the programme by accessibility and support to the CDSMP network

Professionals adequately trained could be part of the workshops themselves, fostering an integrated care approach

Relevant role coordinating the stakeholders for recruitment processes.



#### Recommendations for scaling up EFFICHRONIC model



- 1. Be clear on the **specific vulnerable target groups** that constitute the focus of the intervention.
- 2. Prioritizing areas with higher vulnerability and then displaying individual recruitment strategies requires careful planning beforehand.
- 3. Territories with **higher vulnerability** are inherently complex to work in, but can offer great **opportunities**.
- 4. Persuasive narrative or vision to share & imagination and thinking-outside the box.





#### Recommendations for scaling up EFFICHRONIC model



- 5. Collaborations with stakeholders requires **active mapping and identification** of whom to be involved and how.
- 6. Many people are willing to collaborate (i.e. community agents, retail pharmacists, caregivers): don't limit yourself!
- 7. Get on board the influential leaders within the community and tailor recruitment methods adapted to the culture of the target population.
- **8. Constant nurturing** of the collaborations is essential.





#### Recommendations for scaling up EFFICHRONIC model: CDSMP features

- **9. Workshop locations and timing should** facilitate participation.
- 10. CDSMP methodology requires basic levels of intellectual capacity, mobility, and ability to make personal choices
- 11. Best recruiters are those who know the program well, dedicate time to explain the program to them
- 12. It is important that leaders are also people with chronic conditions to strengthen the peers' nature.
- **13. Alternative research techniques** to evaluation questionnaires are required for vulnerable groups





#### Our EU-wide call

EFFICHRONIC has been distinctive in advocating that care systems need to go outward and beyond their alleged boundaries, to reach out to those most vulnerable populations.

We did our own journey and showed that it is possible.

Thus, EFFICHRONIC wishes to make a call for European health and social care systems, in particular Primary Care, to start their own journeys and move beyond their usual boundaries of responsibility to reach out to vulnerable populations with chronic conditions or other complex needs.

Our wishing list for EU health promotion in vulnerable groups

Cost-effectiveness of self-management intervention in vulnerable population has been demonstrated but, this is our wishing list for the future:

- Enhanced recruitment outreach, including **the harder to reach** groups (e.g. marginal groups)
- Increased knowledge on **context specific effectiveness**: what works better where and for whom
  (e.g. mixed methods Realist evaluation)
- Policy support for ambitious scaling up in more regions and countries
- Evaluating online/virtual version of the programme for potentially increasing the outreach

#### Thanks!

















