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POR FESR 2014-2020 / INNOVAZIONE E COMPETITIVITÀ

Sistema Integrato DomicliarE e Riabilitazione Assistita al Benessere SIDERA^B

La presa in carico secondo il modello SIDERA^B: aspetti clinici

Engagement e riabilitazione domiciliare nella cronicità: il progetto SIDERA^B

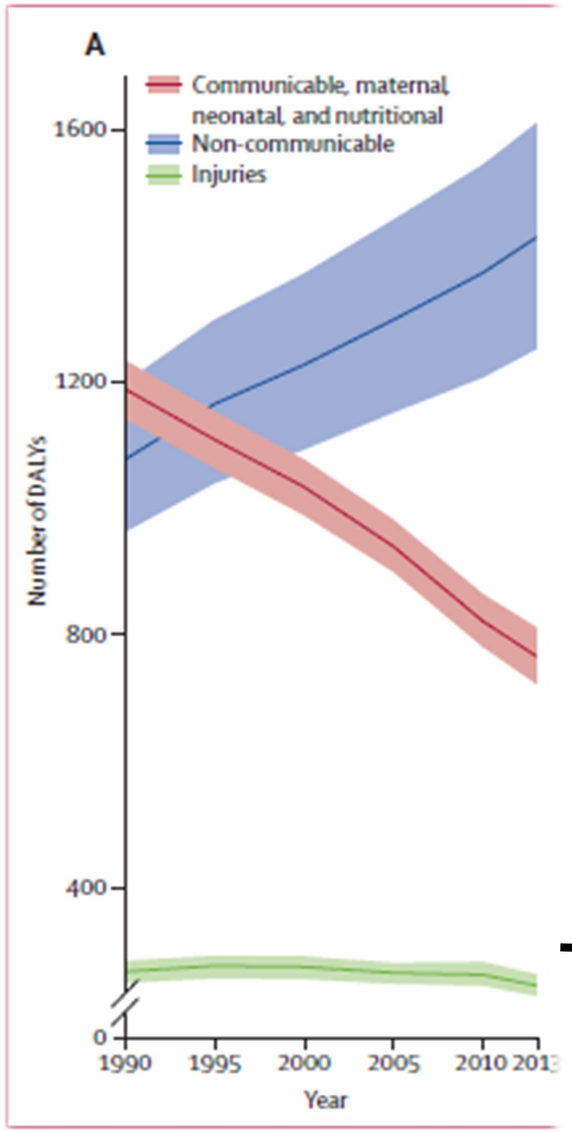
Milano, 16 Novembre 2018

Francesca Baglio

IRCCS Fondazione don Carlo Gnocchi

SIDERA^B: LE SFIDE

ASPETTATIVA DI VITA E NCD



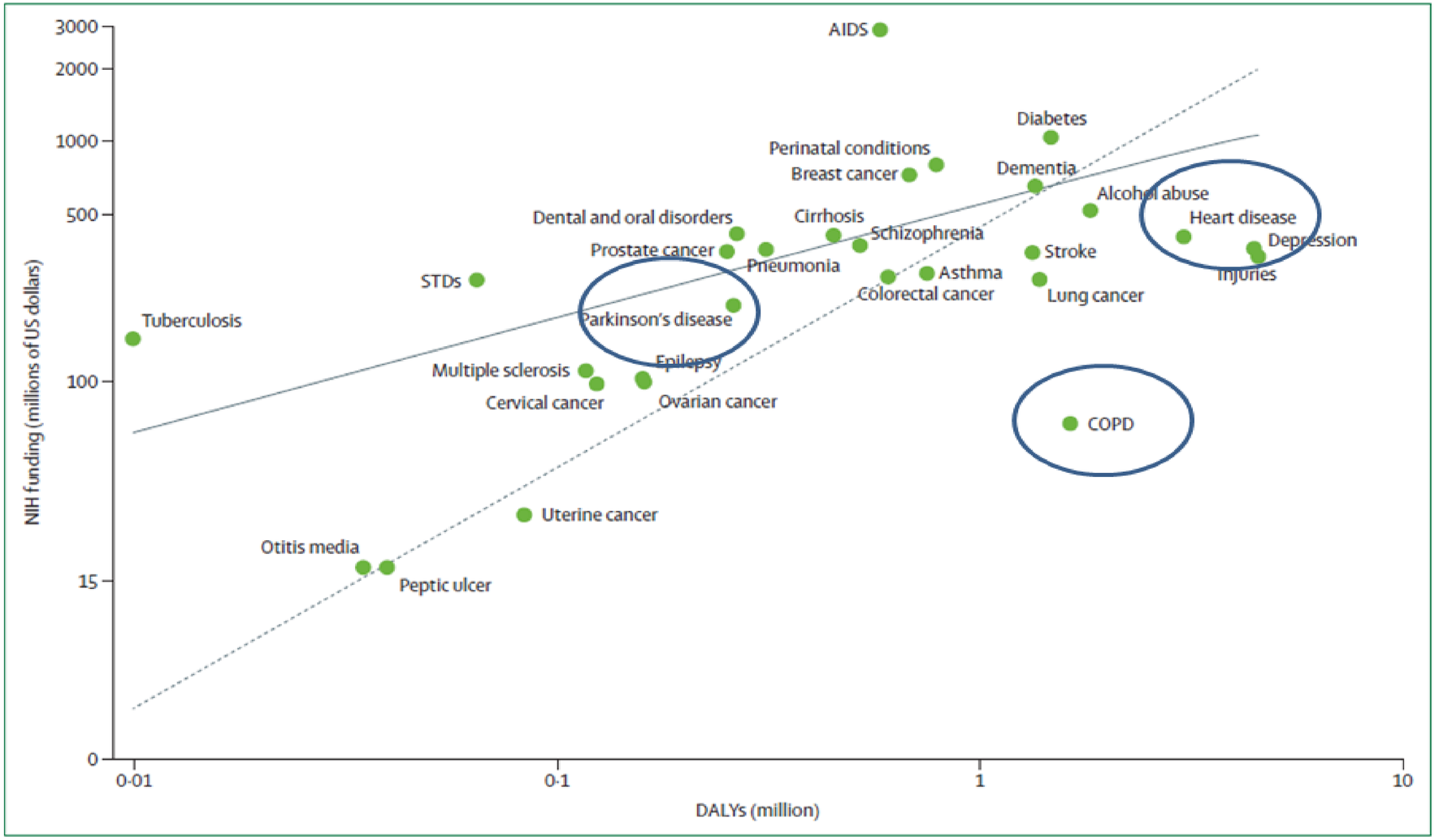
Females

Leading causes 1990	Leading causes 2007	Mean percentage change in number of DALYs, 1990–2007	Mean percentage change in age-standardised DALY rate, 1990–2007	Leading causes 2017	Mean percentage change in number of DALYs, 2007–17	Mean percentage change in age-standardised DALY rate, 2007–17
1 Neonatal disorders	1 Neonatal disorders	−17·3	−17·8	1 Neonatal disorders	−18·2	−21·9
2 Lower respiratory infections	2 Lower respiratory infect	−39·6	−42·0	2 Ischaemic heart disease	17·0	−10·4
3 Diarrhoeal diseases	3 HIV/AIDS	610·7	483·0	3 Stroke	13·6	−12·5
4 Stroke	4 Ischaemic heart disease	14·9	−23·6	4 Lower respiratory infections	−26·8	−33·6
5 Ischaemic heart disease	5 Diarrhoeal diseases	−40·8	−44·2	5 Diarrhoeal diseases	−27·8	−35·5
6 Congenital defects	6 Stroke	8·4	−26·5	6 COPD	21·2	−6·3
7 COPD	7 Malaria	28·6	23·2	7 Low back pain	17·3	−2·7
8 Measles	8 COPD	−1·3	−32·7	8 Headache disorders	15·3	0·7
9 Tuberculosis	9 Congenital defects	−12·8	−15·6	9 Diabetes	29·5	1·9
10 Malaria	10 Low back pain	29·8	−7·6	10 Congenital defects	−9·6	−14·8
11 Low back pain	11 Headache disorders	34·0	−0·1	11 Depressive disorders	14·1	−3·1
12 Headache disorders	12 Diabetes	60·3	10·4	12 HIV/AIDS	−53·9	−58·8
13 Dietary iron deficiency	13 Depressive disorders	32·2	−3·0	13 Malaria	−35·4	−40·2
14 Maternal disorders	14 Tuberculosis	−25·0	−40·9	14 Dietary iron deficiency	−5·0	−14·6
15 Protein-energy malnutrition	15 Dietary iron deficiency	0·3	−18·8	15 Alzheimer's disease	36·1	−0·9
16 Road injuries	16 Road injuries	−1·6	−20·5	16 Road injuries	−4·8	−17·2
17 Depressive disorders	17 Maternal disorders	−21·7	−38·7	17 Other musculoskeletal	21·0	0·9
18 Meningitis	18 Anxiety disorders	33·0	0·6	18 Breast cancer	24·4	−1·4
19 Diabetes	19 Other musculoskeletal	49·7	7·0	19 Age-related hearing loss	25·7	0·2
20 Self-harm	20 Breast cancer	35·9	−8·1	20 Tuberculosis	−20·6	−32·2
21 Drowning	21 Chronic kidney disease	22·4	−11·0	21 Anxiety disorders	12·4	−1·9
22 Asthma	22 Alzheimer's disease	52·1	−6·1	22 Chronic kidney disease	21·5	−2·4
23 Chronic kidney disease	23 Age-related hearing loss	44·9	0·7	23 Neck pain	20·8	−1·5
24 Anxiety disorders	24 Neck pain	45·7	0·8	24 Blindness & vision impairment	22·6	−2·1
25 Tetanus	25 Blindness & vision impairment	41·8	−0·6	25 Falls	24·4	0·3
26 Breast cancer	26 Meningitis	−23·0	−27·0	26 Cirrhosis	9·4	−11·2
27 Falls	27 Self-harm	−21·9	−39·8	27 Lung cancer	31·7	1·4
28 Cirrhosis	28 Falls	19·2	−12·9	28 Gynaecological diseases	10·2	−2·4
29 Other musculoskeletal	29 Protein-energy malnutrition	−39·8	−40·9	29 Maternal disorders	−24·1	−30·3
30 Blindness & vision impairment	30 Cirrhosis	16·6	−16·6	30 Asthma	9·7	−8·2
31 Age-related hearing loss	31 Gynaecological diseases			31 Self-harm		
32 Neck pain	32 Asthma			34 Meningitis		
33 Alzheimer's disease	33 Lung cancer			37 Protein-energy malnutrition		
34 Gynaecological diseases	34 Measles			52 Drowning		
36 HIV/AIDS	37 Drowning			64 Measles		
43 Lung cancer	74 Tetanus			118 Tetanus		

Communicable, maternal, neonatal, and nutritional diseases
Non-communicable diseases
Injuries

Lancet 2018; 392: 1859–922

INVESTIMENTI IN RICERCA



NIH funding in 2006 and disease burden (DALYs) in 2004 for 29 common diseases in the USA

Lancet Respir Med 2016;
4: 473–526

SFIDA: INVESTIRE IN NCD

The *Lancet* Taskforce on NCDs and economics 1

Lancet 2018; 391: 2029–35

Investing in non-communicable disease prevention and management to advance the Sustainable Development Goals

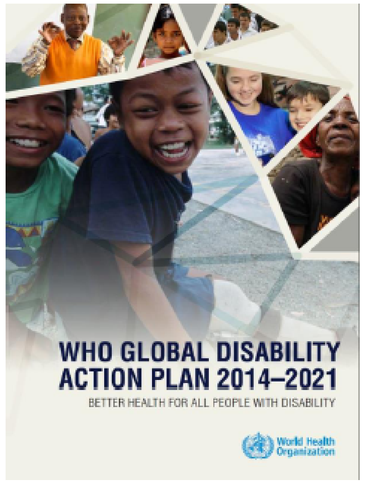
Rachel Nugent, Melanie Y Bertram, Stephen Jan, Louis W Niessen, Franco Sassi, Dean T Jamison, Eduardo González Pier, Robert Beaglehole

Investments in prevention and control of NCDs offer a high return for countries at all income levels, contributing to economic growth; in the long term, NCD prevention offers a higher return on investment than NCD control, though both are essential to an effective response strategy

Mutually reinforcing progress on at least nine Sustainable Development Goals will help achieve target 3.4 of reducing premature mortality from NCDs by a third by 2030

RIVOLUZIONARE IL *MANAGEMENT*

SUSTAINABLE DEVELOPMENT GOALS



1. Improving access to health services
2. **Strengthening rehabilitation, assistive technology, support services, and community-based rehabilitation**
3. Strengthen collection of disability data and research

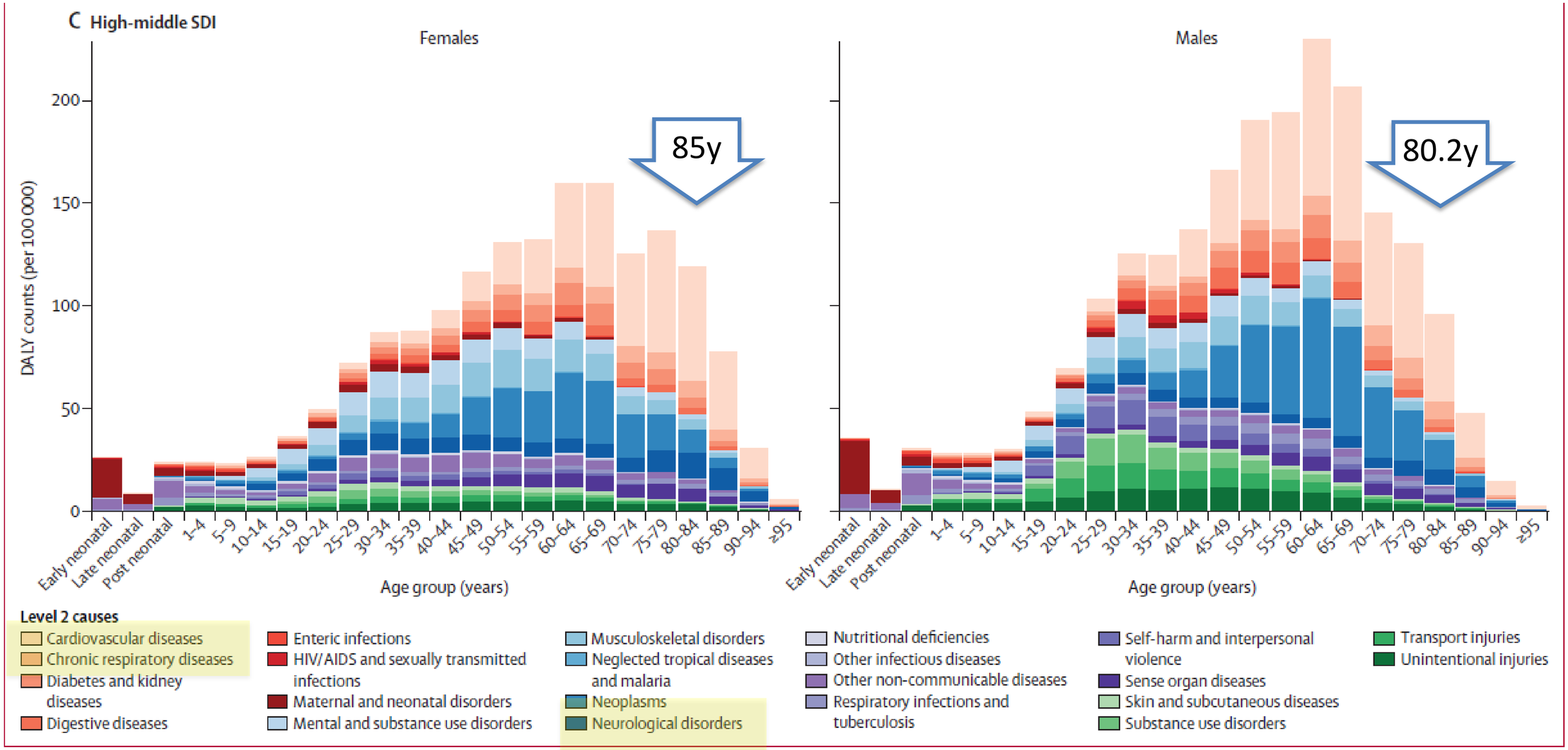
World Health Organization

LA RIABILITAZIONE MOTORE DEL CAMBIAMENTO E NON "PALLIATIVE CARE"

SISTEMA INTEGRATO DOMICILIARE E RIABILITAZIONE ASSISTITA AL BENESSERE

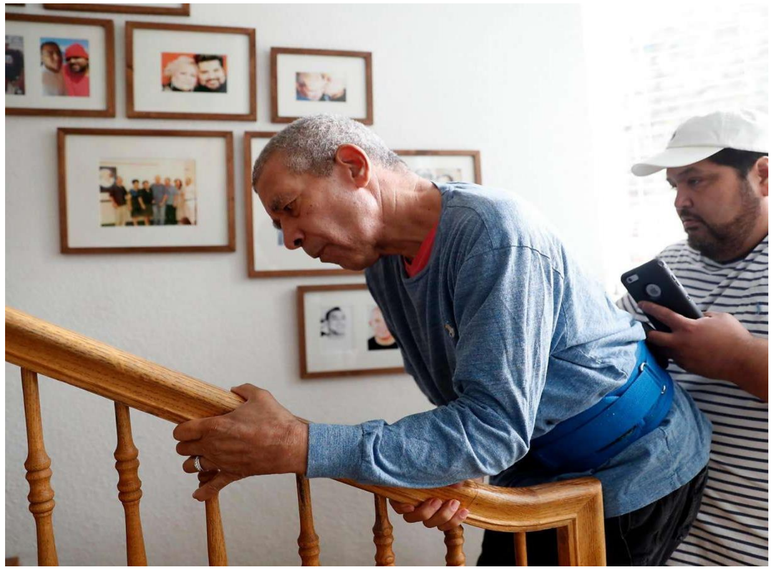
SIDERA ^B : PER CHI ?

QUALI NCD

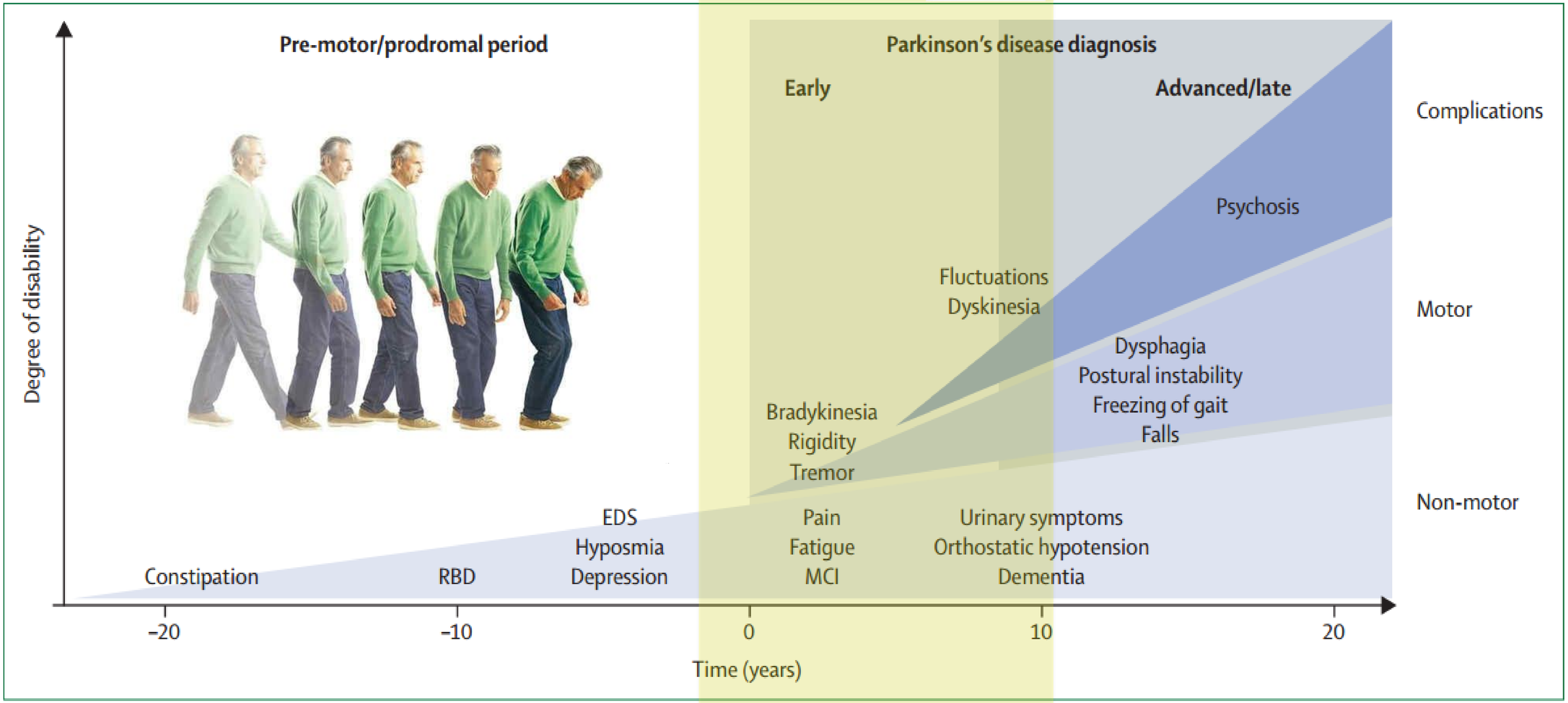


Lancet 2018; 392: 1859–922

NCD IN SIDERA^B



CARATTERISTICHE



Lancet 2015; 386: 896–912

Table 3.1 Definition of heart failure with preserved (HFpEF), mid-range (HFmrEF) and reduced ejection fraction (HFrEF)

Type of HF		HFrEF	HFmrEF	HFpEF
CRITERIA	1	Symptoms ± Signs[a]	Symptoms ± Signs[a]	Symptoms ± Signs[a]
	2	LVEF <40%	LVEF 40–49%	LVEF ≥50%
	3	–	1. Elevated levels of natriuretic peptides[b]; 2. At least one additional criterion: a. relevant structural heart disease (LVH and/or LAE), b. diastolic dysfunction (for details see Section 4.3.2).	1. Elevated levels of natriuretic peptides[b]; 2. At least one additional criterion: a. relevant structural heart disease (LVH and/or LAE), b. diastolic dysfunction (for details see Section 4.3.2).

BNP = B-type natriuretic peptide; HF = heart failure; HFmrEF = heart failure with mid-range ejection fraction; HFpEF = heart failure with preserved ejection fraction; HFrEF =

PROGNOSI

I Classe NYHA
Nessuna limitazione all'attività fisica

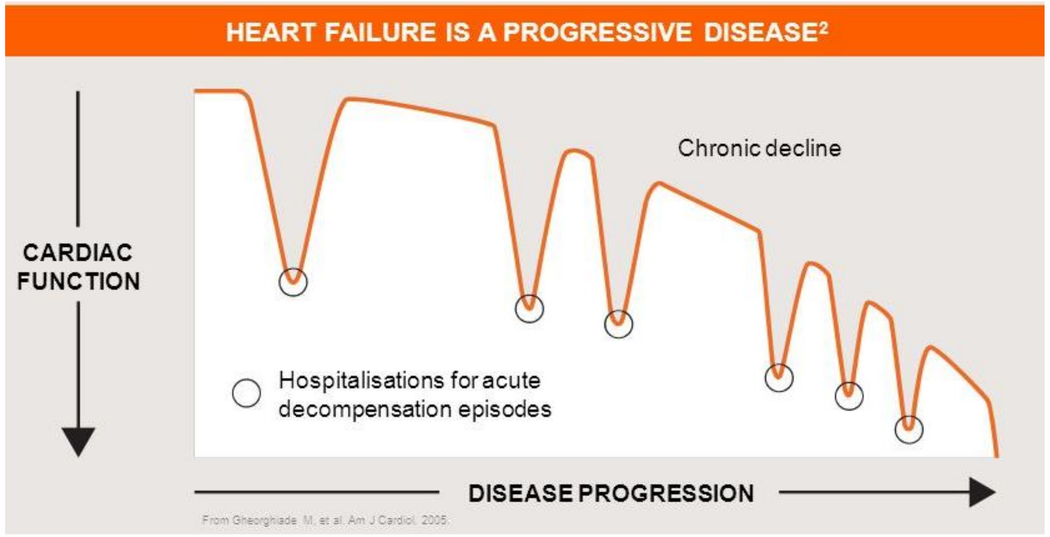
II Classe NYHA
Lieve limitazione all'attività fisica

II S: Sintomi durante le attività fisiche più impegnative

II M: lieve limitazione per tutte le attività fisiche

III Classe NYHA
Marcata limitazione all'attività fisica

IV Classe NYHA
Incapacità di eseguire qualsiasi attività fisica



PROGNOSI

CLASSIFICAZIONE DI GRAVITA' NELLA BPCO (VEMS)

GOLD 1	VEMS ≥ 80% del predetto	Lieve
GOLD 2	VEMS da 50 - 80% del predetto	Moderato
GOLD 3	VEMS da 30 - 50% del predetto	Grave
GOLD 4	VEMS <30% del predetto	Molto grave

SIDERA ^B : STEP 1

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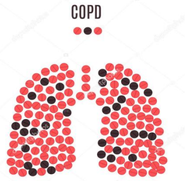
DISEASE-NET: MODELLI DI CARE-INTEGRATA

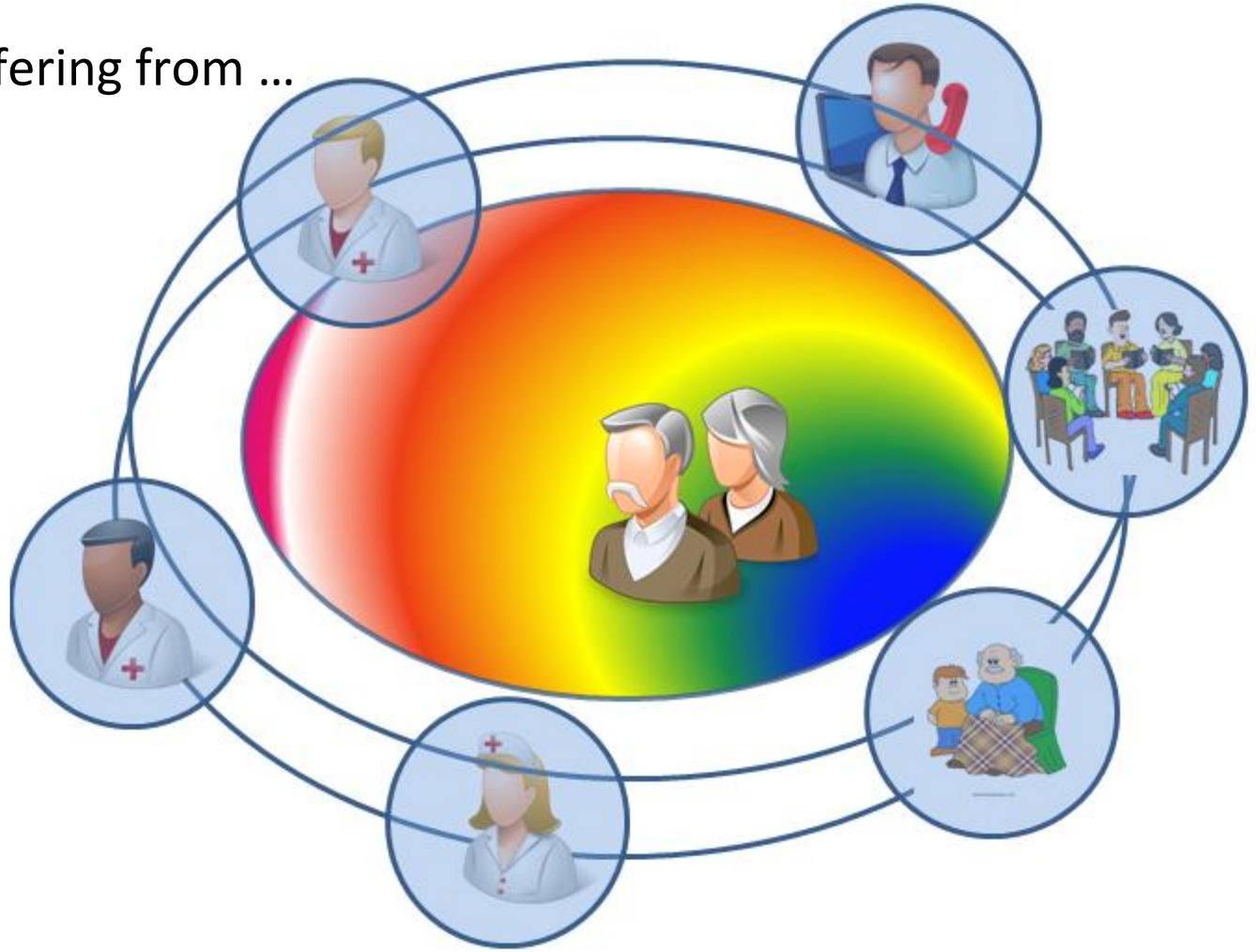
A community for people suffering from …

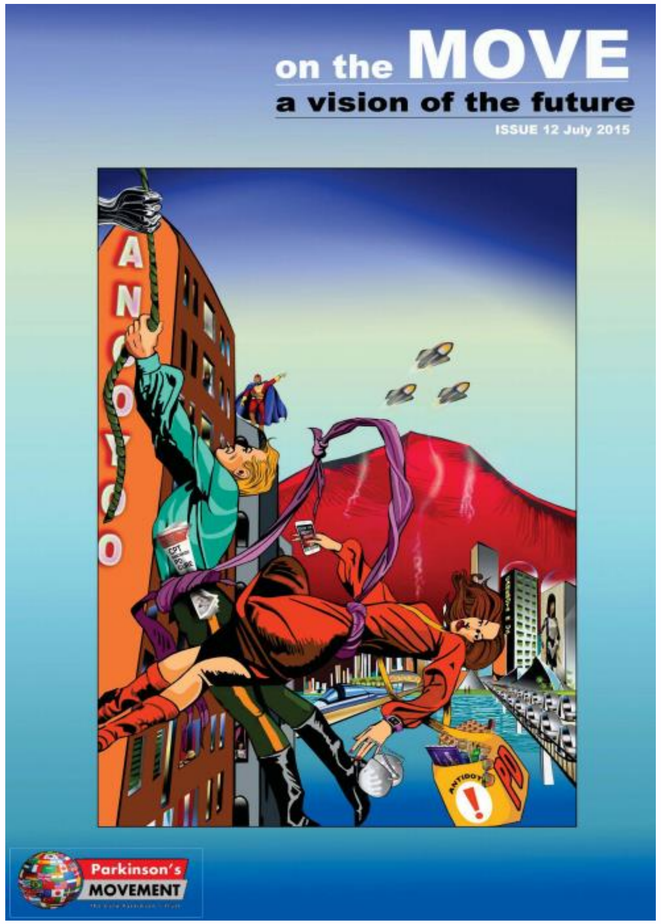
PD_Net

SCC_Net



BPCO_Net

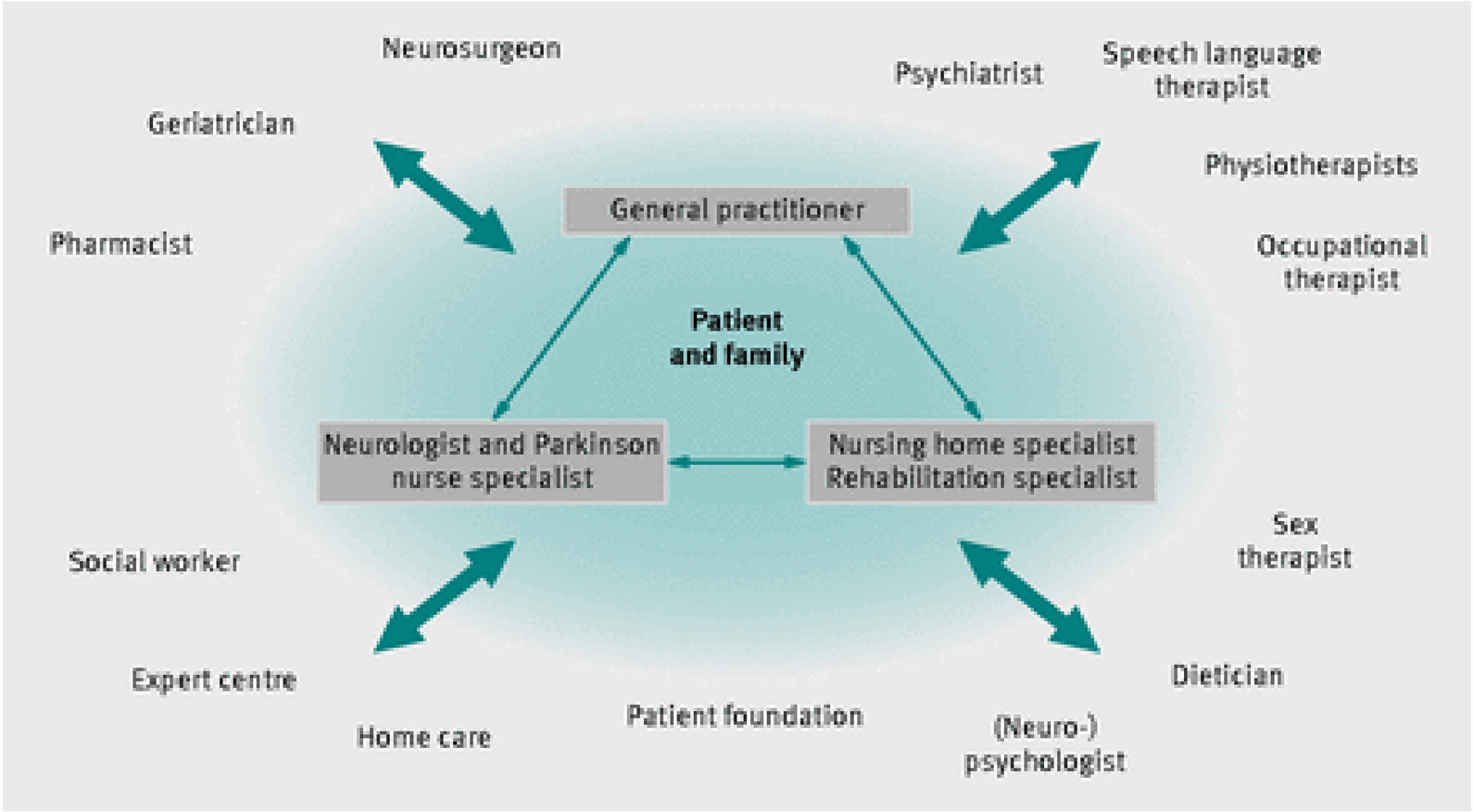




Revolutionising management of chronic disease: the ParkinsonNet approach

Patients with Parkinson's disease need long term support to manage their condition. **Bastiaan Bloem** and **Marten Munneke** describe the benefits of a model of integrated care provided by a network of specialists and suggest it has promise for other long term conditions

A community for people suffering from Parkinson



From: Bloem BR, Munneke M. BMJ. 2014; 348:g1838

Effectiveness and costs of specialised physiotherapy given via ParkinsonNet: a retrospective analysis of medical claims data

	Specialised physiotherapy (n=2129)	Usual care physiotherapy (n=2252)
Age (years)	72·76 (9·14)	73·61 (9·39)
Women	863 (41%)	994 (44%)
Socioeconomic status*	0·14 (0·98)	0·22 (1·07)
Neurology outpatient visits	1·77 (0·86)	1·68 (0·85)
Depression	466 (18%)	373 (21%)
Professional disciplines consulted†	0·69 (0·79)	0·76 (0·83)
Different Parkinson's disease drugs‡	1·67 (0·92)	1·80 (0·99)
Use of mental health care	181 (9%)	253 (11%)
Years included in the study	2·18 (0·84)	2·38 (0·79)

Jan H L Ypinga, Nienke M de Vries, Lieke H H M Boonen, Xander Koolman, Marten Munneke, Aeilko H Zwinderman, Bastiaan R Bloem

Summary

Background Parkinson's disease is a complex condition that is best managed by specialised professionals. Trials show that specialised allied health interventions are cost-effective, as compared with usual care. We aimed to study the long-term benefits of specialised physiotherapy using the ParkinsonNet approach in real-world practice.

Lancet Neurol 2018; 17: 153–61

Published Online
December 12, 2017
http://dx.doi.org/10.1016/

Interpretation These results confirm the findings from controlled trials, and offer evidence that specialised physiotherapy as delivered through ParkinsonNet is associated with fewer Parkinson's disease-related complications and lower costs in real-world practice. Neurologists can facilitate specialised physiotherapy by specific referral to such experts.

SIDERA ^B : STEP 2

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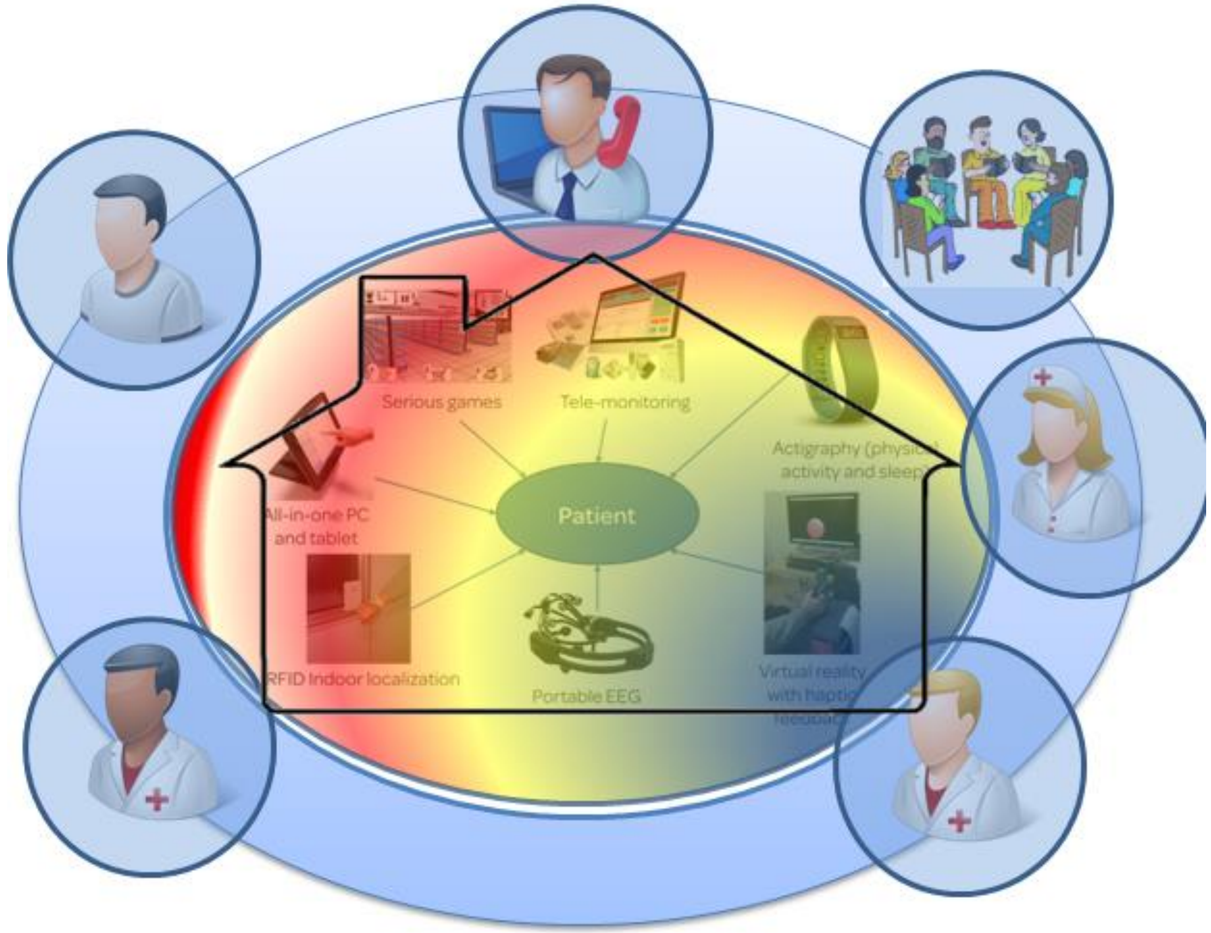
RIABILITAZIONE OLTRE il “*face to FACE*”

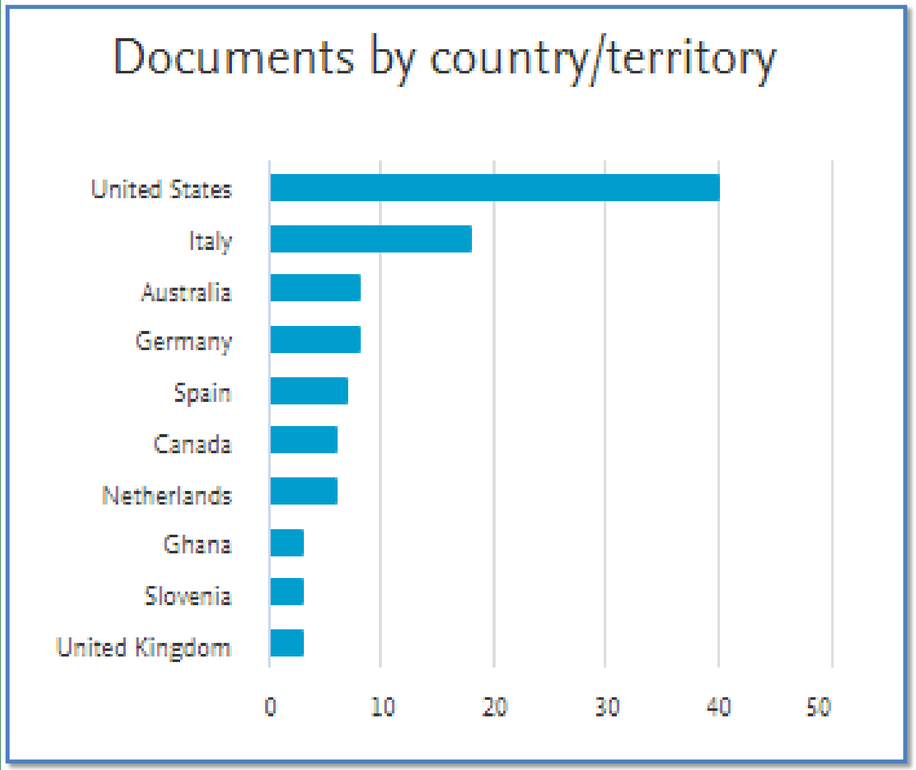
in net , A CASA con TECNOLOGIE ABILITANTI: TELERIABILITAZIONE

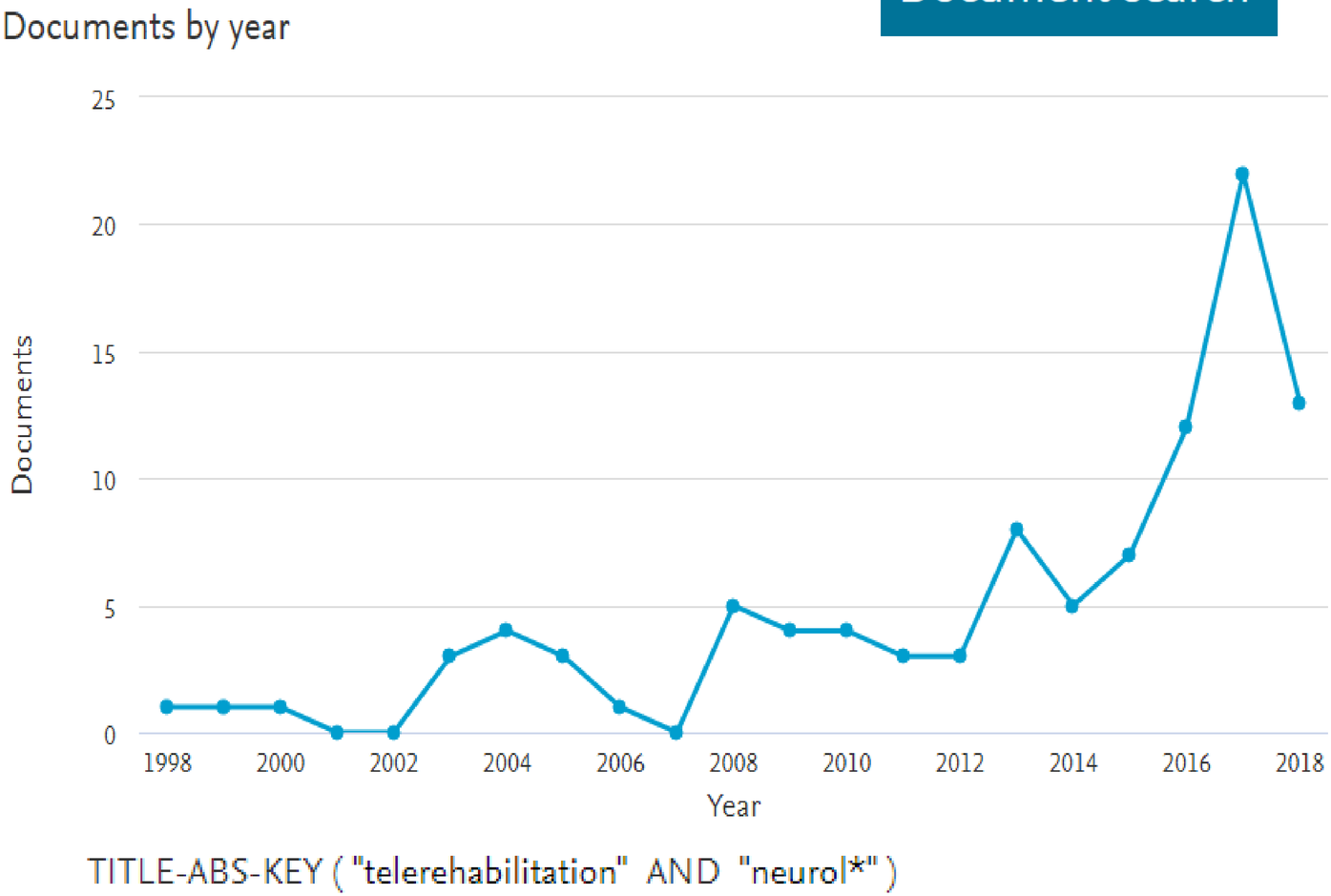


TELERIABILITAZIONE AND NEUROL*

Scopus

Document search

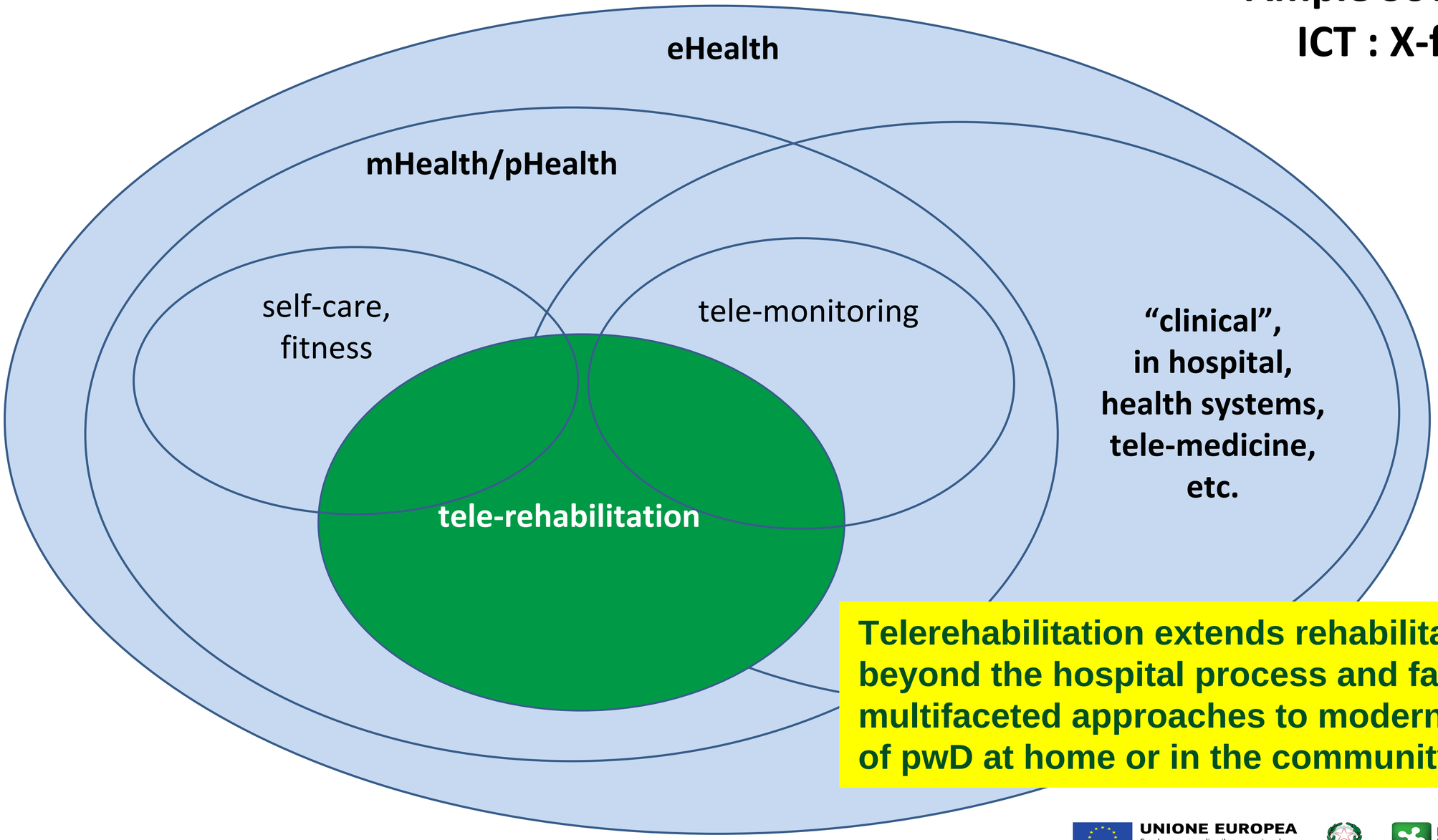




TITLE-ABS-KEY ("telerehabilitation" AND "neurol*")

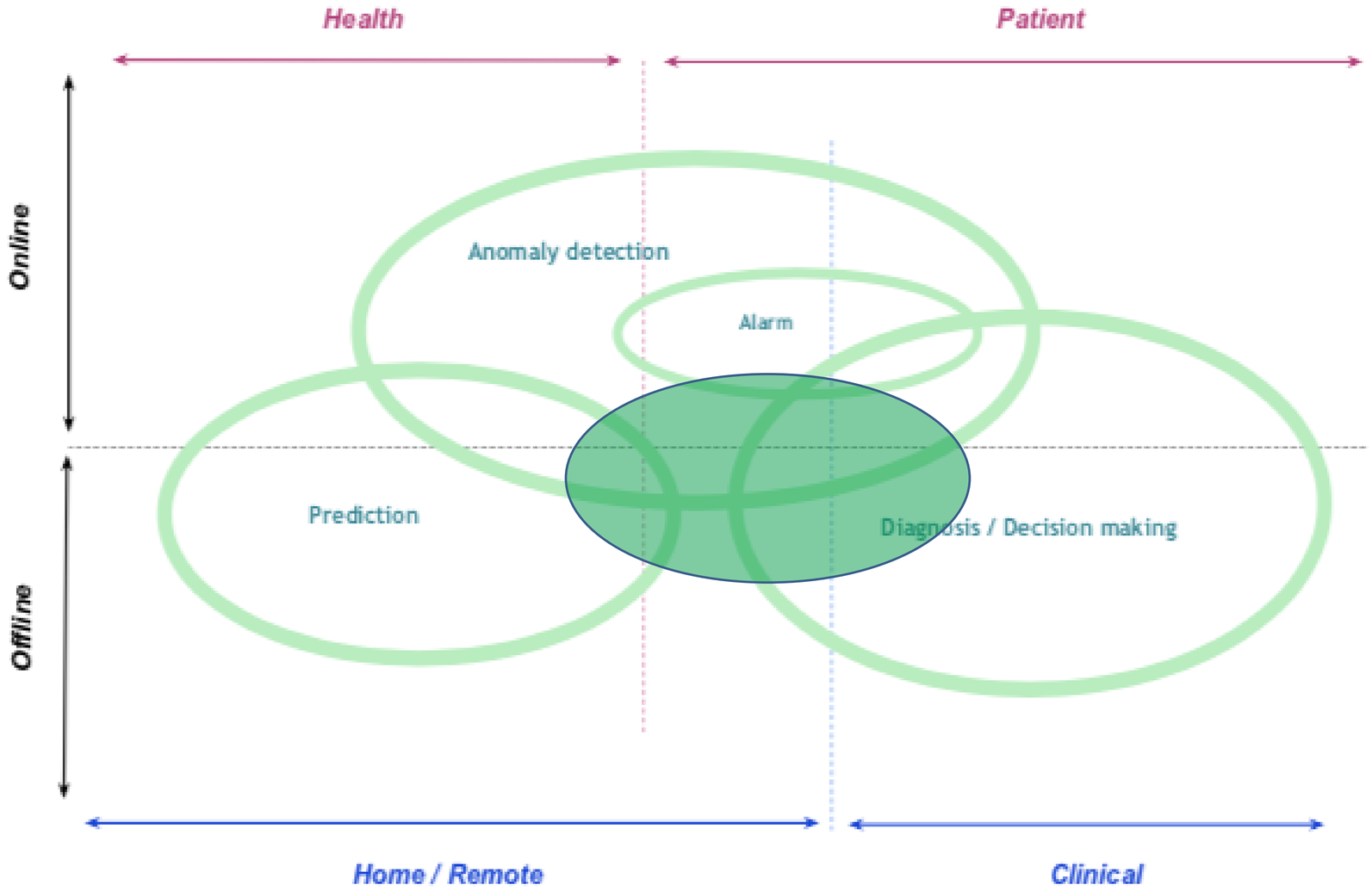
UBI CONSISTAM?

Ampie Sovrapposizioni
ICT : X-fertilizzazioni



Telerehabilitation extends rehabilitative care beyond the hospital process and facilitates multifaceted approaches to modern management of pwD at home or in the community (Huijgen 2008)

TELERIABILITAZIONE: MODELLI

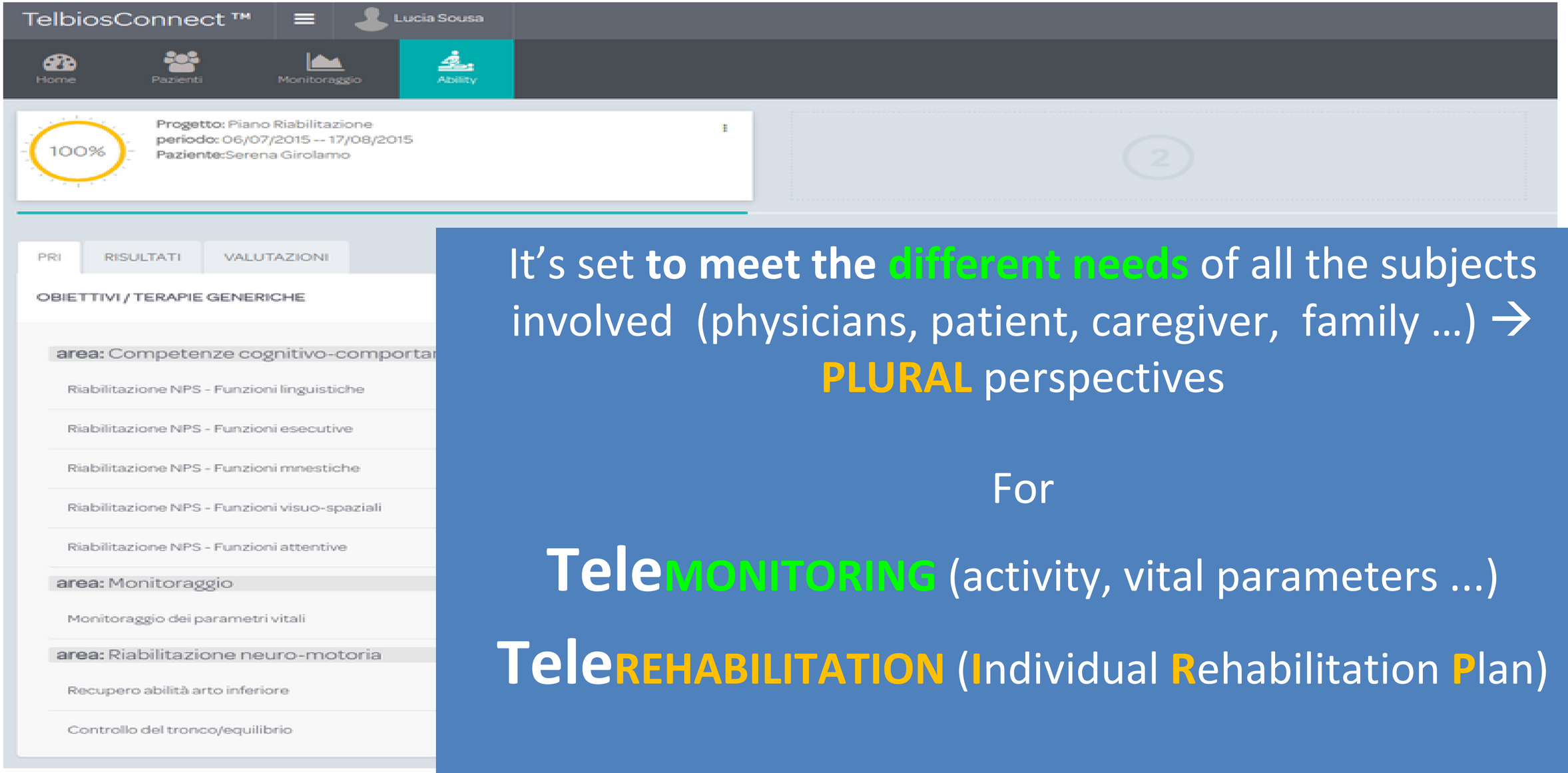


Telerehabilitation:

CLINICA e CASA
“on” e “off” line

modificato da Banaee et al., (2013)

INFRASTRUCTURE: WEB-BASED PLATFORM



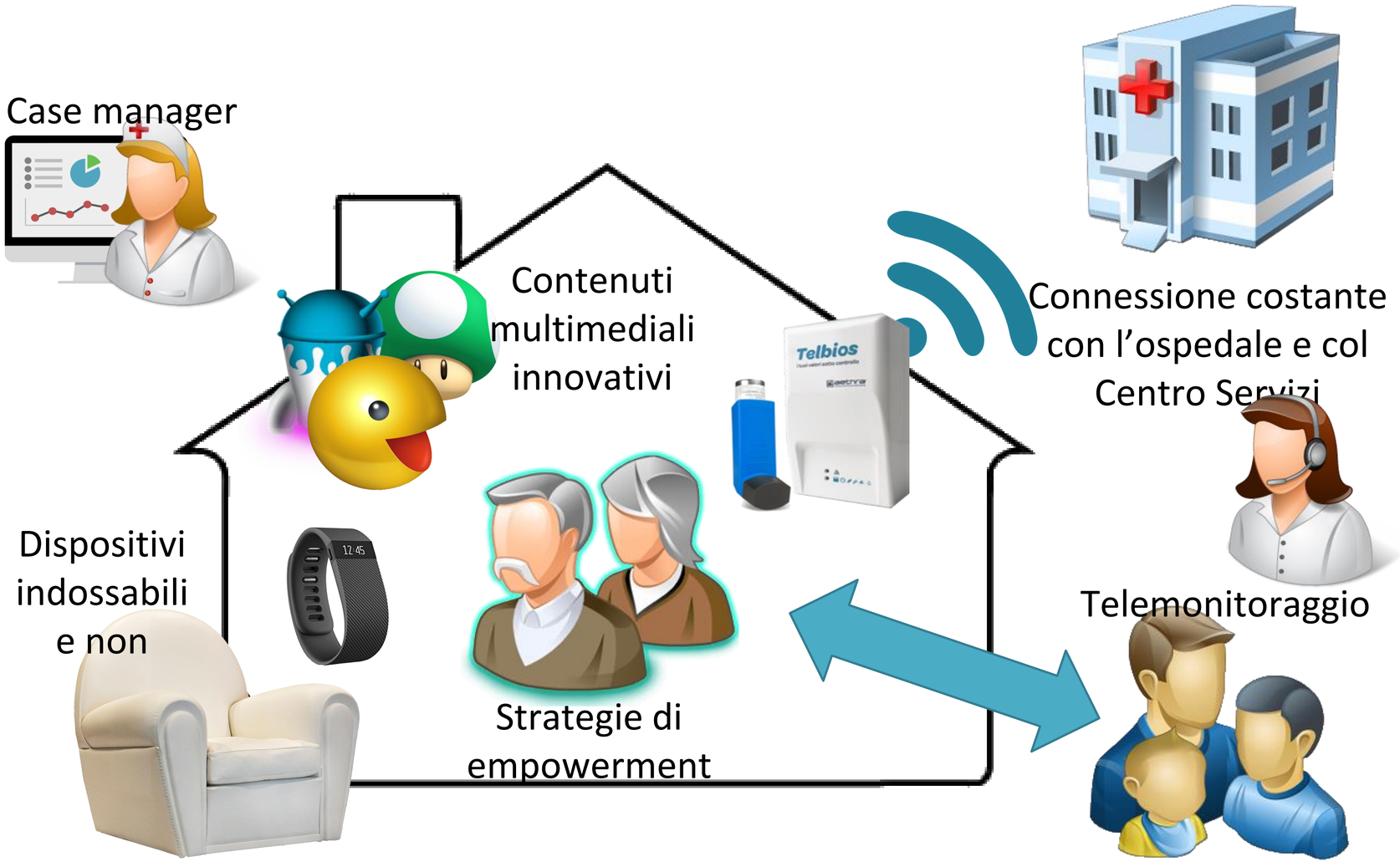
It's set **to meet the different needs** of all the subjects involved (physicians, patient, caregiver, family …) → **PLURAL** perspectives

For

TeleMONITORING (activity, vital parameters ...)

TeleREHABILITATION (**I**ndividual **R**ehabilitation **P**lan)

SPECIFIC CONTENT: TOOLS FOR TELERIAB + DEVICES FOR TELEMONITORING



European Journal of Heart Failure (2016)
doi:10.1002/ejhf.592

ESC GUIDELINES

2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure

The Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC)

Developed with the special contribution of the Heart Failure Association (HFA) of the ESC

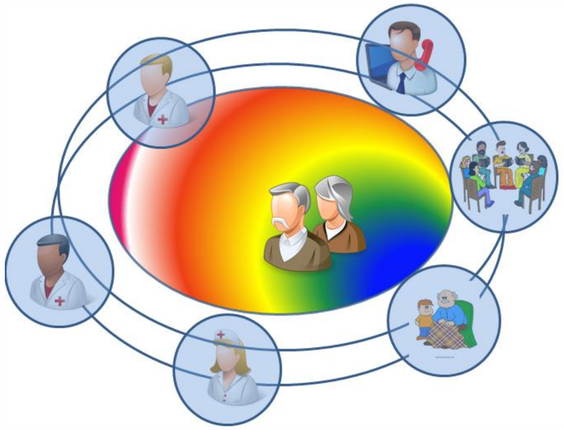
Table 14.1 Characteristics and components of management programmes for patients with heart failure

Characteristics	Should employ a multidisciplinary approach (cardiologists, primary care physicians, nurses, pharmacists, physiotherapists, dieticians, social workers, surgeons, psychologists, etc.).
	Should target high-risk symptomatic patients.
	Should include competent and professionally educated staff.[617]
Components	Optimized medical and device management.
	Adequate patient education, with special emphasis on adherence and self-care.
	Patient involvement in symptom monitoring and flexible diuretic use.
	Follow-up after discharge (regular clinic and/or home-based visits; possibly telephone support or remote monitoring).
	Increased access to healthcare (through in-person follow-up and by telephone contact; possibly through remote monitoring).
	Facilitated access to care during episodes of decompensation.
	Assessment of (and appropriate intervention in response to) an unexplained change in weight, nutritional status, functional status, quality of life, or laboratory findings.
	Access to advanced treatment options.
	Provision of psychosocial support to patients and family and/or caregivers.

Characteristics

CARATTERISTICHE

- APPROCCIO MULTIDISCIPLINARE: CARE-NETWORK DISEASE-SPECIFICO
- APPROCCIO EDUCATIONAL: DISEASE-SPECIFICO
- ENGAGEMENT DISTRIBUITO NELLE ROUTINE DI CURA
- BENESSERE SECONDO PSICOLOGIA POSITIVA E TECNOLOGIE POSITIVE



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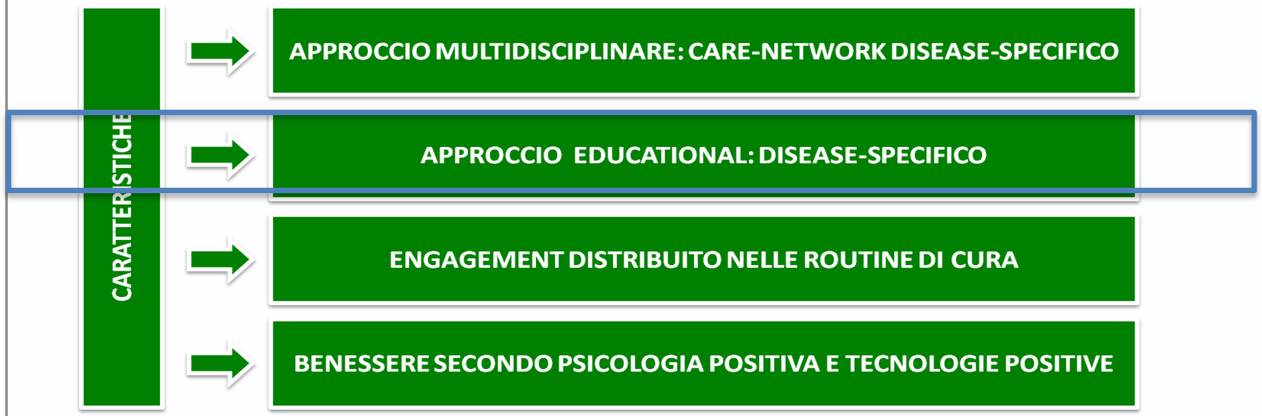
Characteristics



favorire e garantire l'educazione del paziente (caregiver) in merito alla patologia cui è affetto, istruendolo riguardo l'importanza di una corretta aderenza alla terapia farmacologica e non (fisiokinesiterapia, terapia di disostruzione, monitoraggio dei parametri vitali etc) al fine di ottimizzare la gestione domiciliare dei sintomi, prevenire le riacutizzazioni e saperle riconoscere in modo da poter intervenire con tempestività.

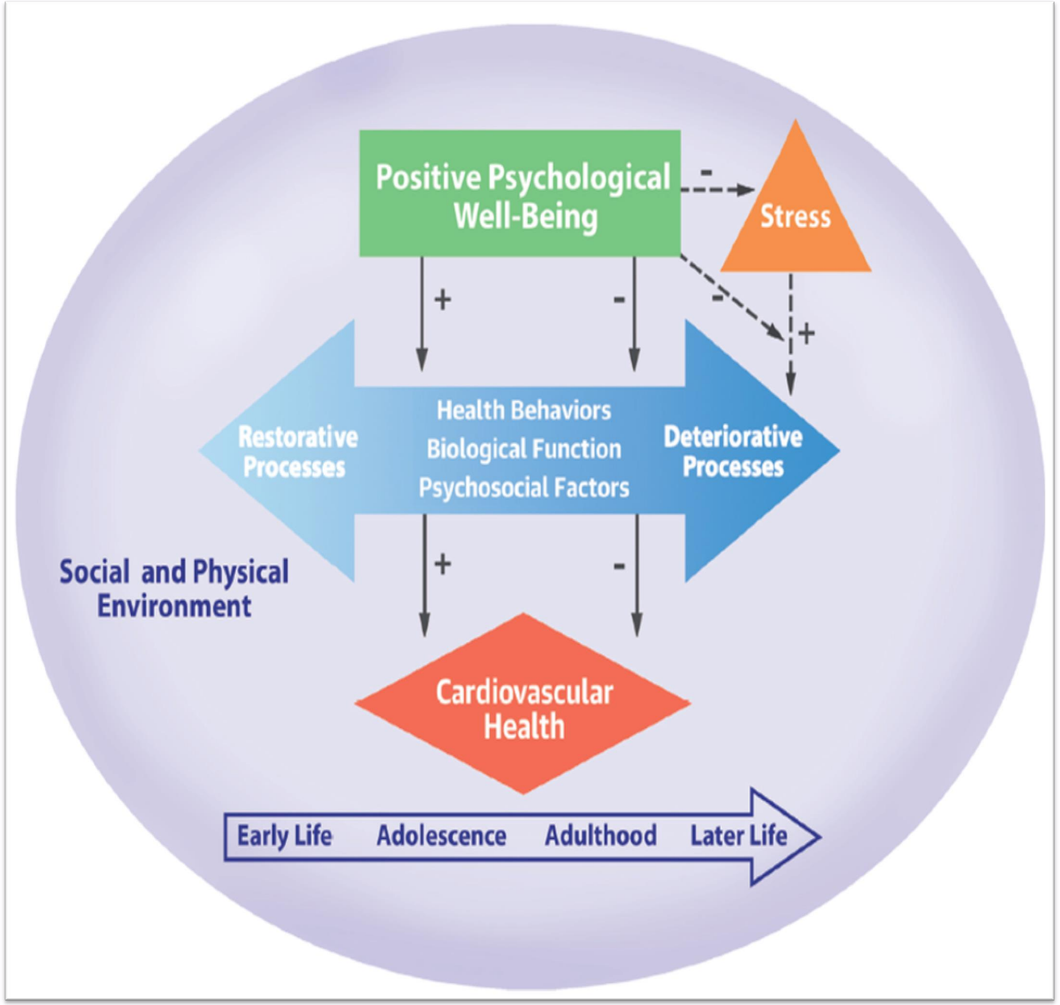
Characteristics

CARATTERISTICHE

- APPROCCIO MULTIDISCIPLINARE: CARE-NETWORK DISEASE-SPECIFICO
- APPROCCIO EDUCATIONAL: DISEASE-SPECIFICO
- ENGAGEMENT DISTRIBUITO NELLE ROUTINE DI CURA
- BENESSERE SECONDO PSICOLOGIA POSITIVA E TECNOLOGIE POSITIVE

Condividere pratiche, cioè routine di cura, e darvi congiuntamente un significato vuol dire condividere una certa cultura della cura

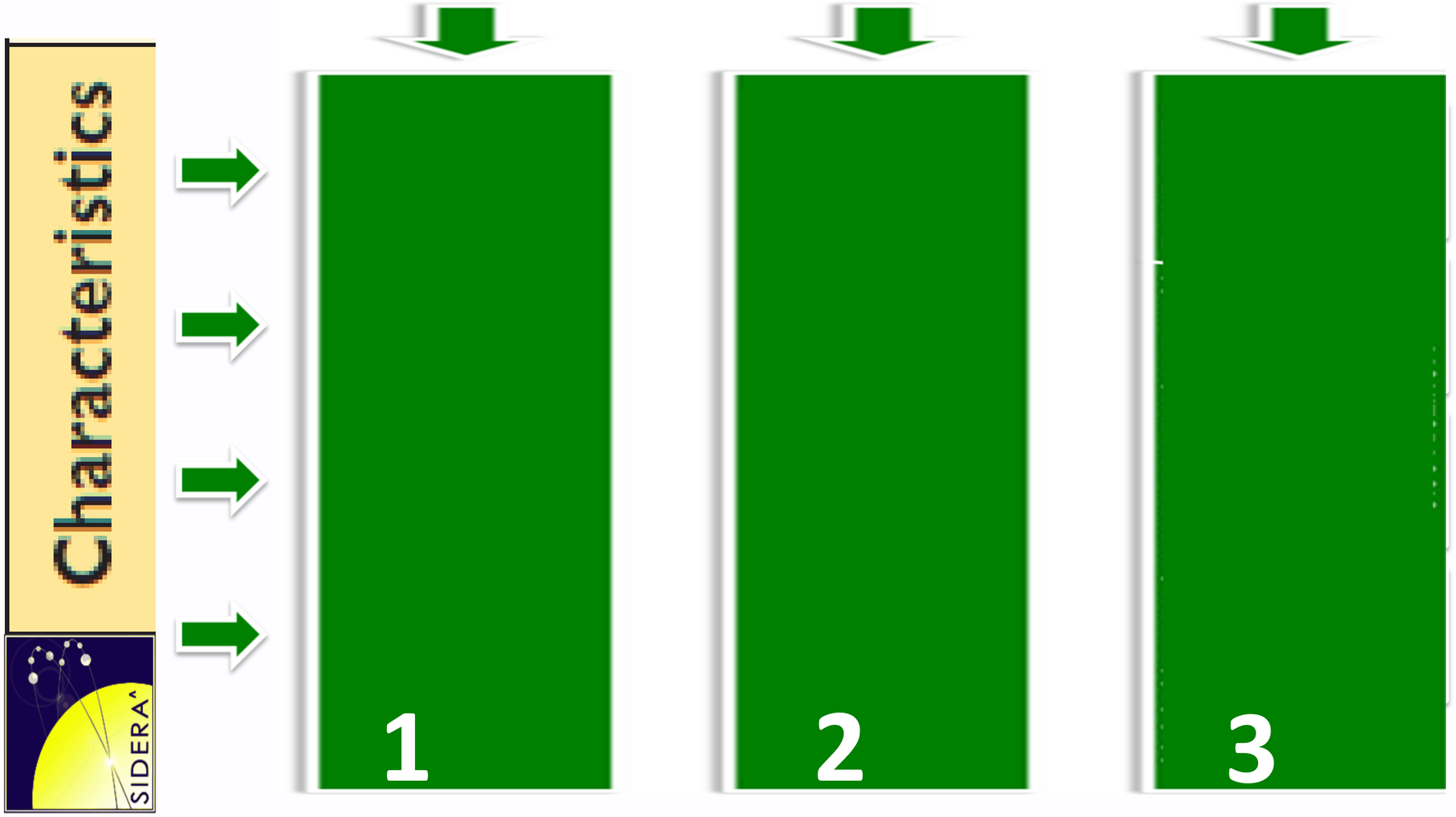
…il processo attraverso il quale i diversi attori coinvolti si appropriano della cultura di presa in carico multidimensionale domiciliare di tale modello



Kubzansky et al., 2018

Components

Characteristics



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PROGRAMMI DI tele MONITORING

Components

- della salute cardiovascolare/ polmonare con dispositivi di monitoraggio per parametri clinici

	SpO2	FC	PA	Bilancia	Sismocardiogramma
					
SCC	✓	✓	✓	✓	✓
BPCO	✓	✓	✓	✓	
MP		✓	✓		

PIANI di tele MONITORING

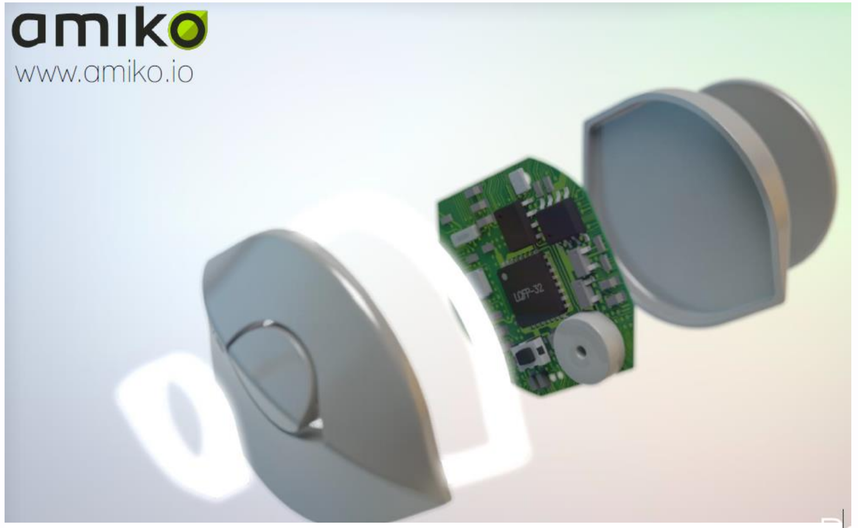
- dell'aderenza/compliance
al trattamento farmacologico

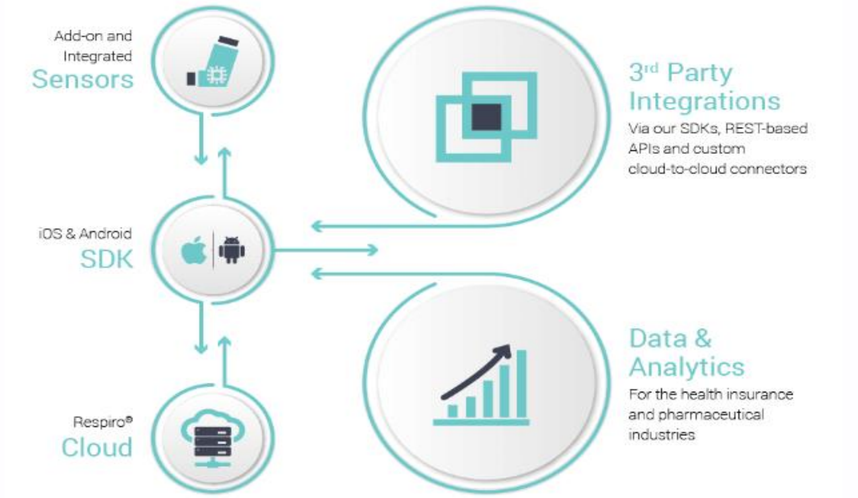
DIARIO FLUTTUAZIONI MOTORIE: Rilevazione dei disturbi per difficoltà di movimento e movimenti non controllati

COGNOME _____ NOME _____ anno _____ mese _____

*Indicare il grado di intensità del disturbo: lieve **1** - medio **2** - alto **3***

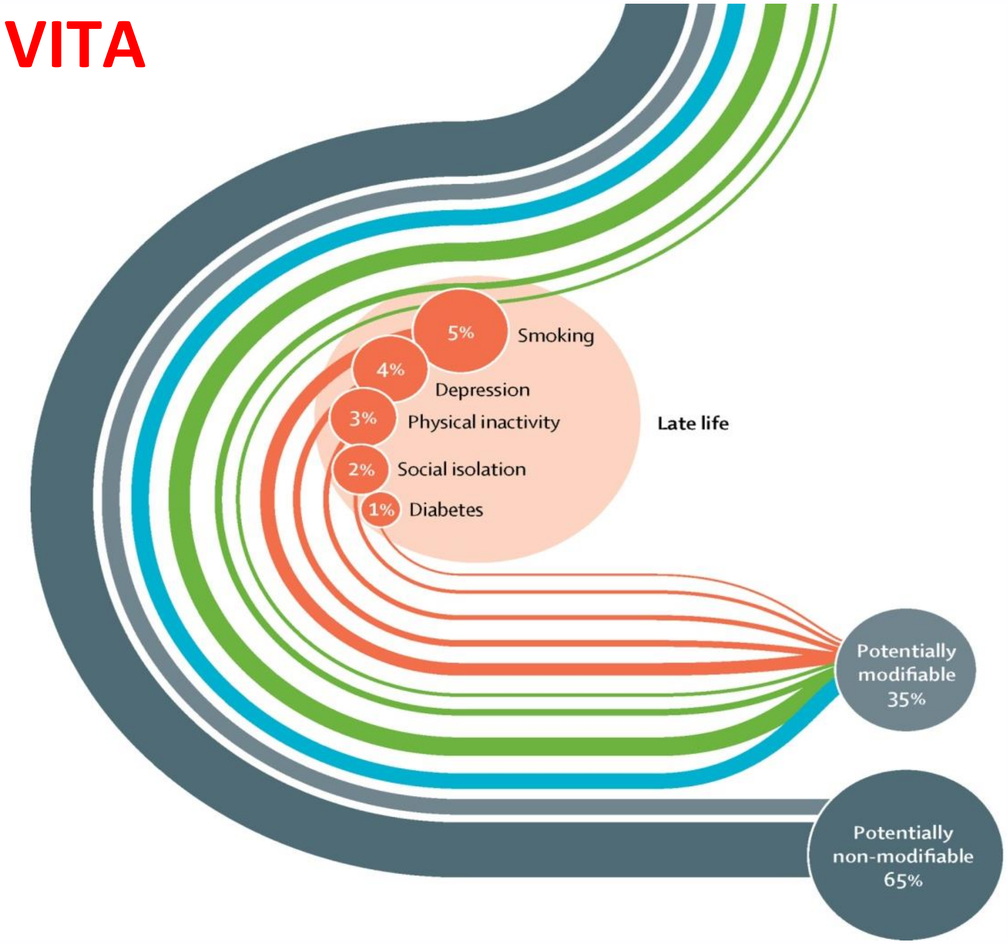
		Ora	23,00-6,00	6,00	7,00	8,00	9,00	10,00	11,00	12,00	13,00	14,00	15,00	16,00	17,00	18,00	19,00	20,00	21,00	22,00	23,00
GIORNO	MOVIMENTI																				
	DIFFICOLTA'																				
	NON CONTROLLATI																				
	DIFFICOLTA'																				
	NON CONTROLLATI																				





Components

INTERVENTI TERAPEUTICI RIABILITATIVI FINALIZZATI ALLA RIDUZIONE DEL RISCHIO CON PROGRAMMI EDUCAZIONALI STRUTTURATI DEDICATI e FINALIZZATI AD UN EFFETTIVO CAMBIAMENTO DELLO STILE DI VITA



ACTIGRAFO e altri sensori

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INTERVENTI RIABILITATIVI SPECIALISTICI

Components

Sedute attività fisica specifica al domicilio per patologia con tools

SC e BPCO

- **Endurance Training**
- **Interval training**
- **Strenght Training**

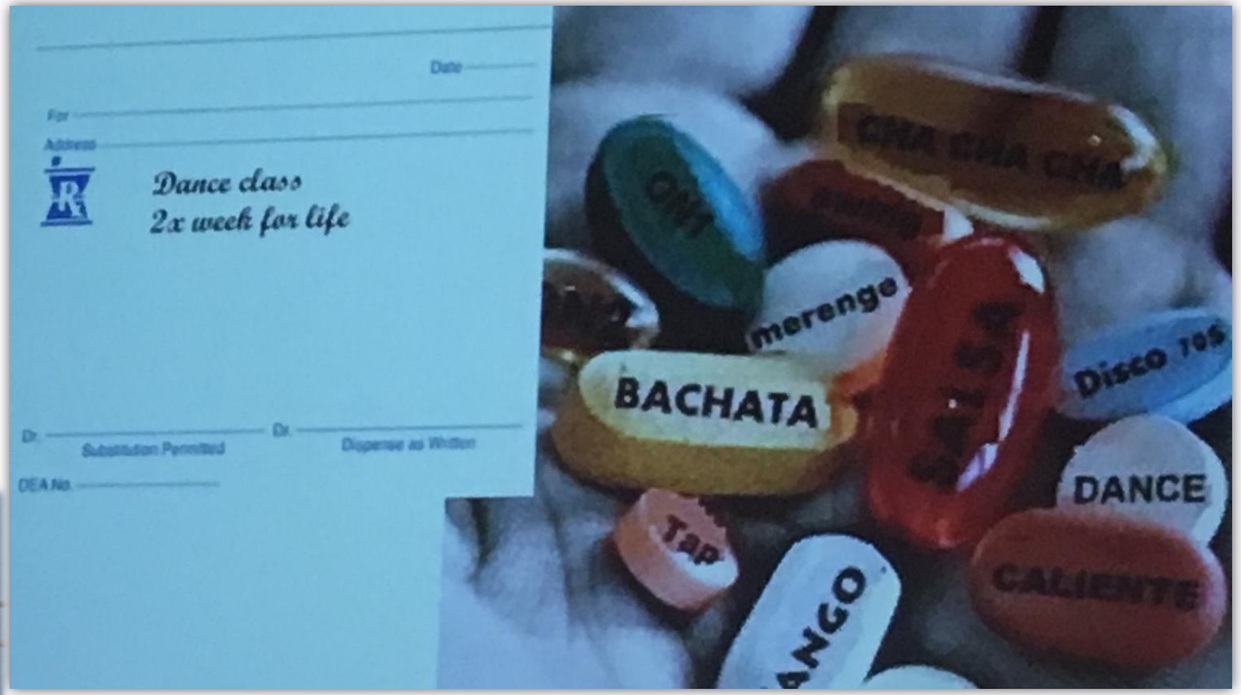
UNIVERSITÀ DEGLI STUDI DI MILANO BICOCCA

INTERVENTI RIABILITATIVI SPECIALISTICI

PD

- **Riforzo al Cue**
- **Training aerobici**

… “ develop strenght, flexibility, stamina and balance” …



SIDERA^B: QUALE RUOLO PER LE PA?

1) Interesse formale a conoscere i risultati di progetto con lo scopo di trarre mutuo vantaggio e identificare opportunità congiunte di collaborazione;

2) Disponibilità **a partecipare a *focus group*** per raccogliere pareri condivisi con le altre PA che supportano il progetto al fine di **ottimizzare i percorsi di cura futuri**;

3) Possibilità di condividere dati, aggregati e anonimi, relativi a sottogruppi della popolazione del territorio della propria ASST

4) Possibilità di **segnalare nominativi di propri pazienti** ai fini della sperimentazione a cura di FDG (solo **per il periodo della sperimentazione**)

5) Studio dell'attuazione di un'applicazione del sistema SIDERA^B all'interno dei percorsi di cura della propria ASST

Sistema Integrato DomiciliarE e Riabilitazione Assistita al Benessere

SIDERA ^B : STEP 3

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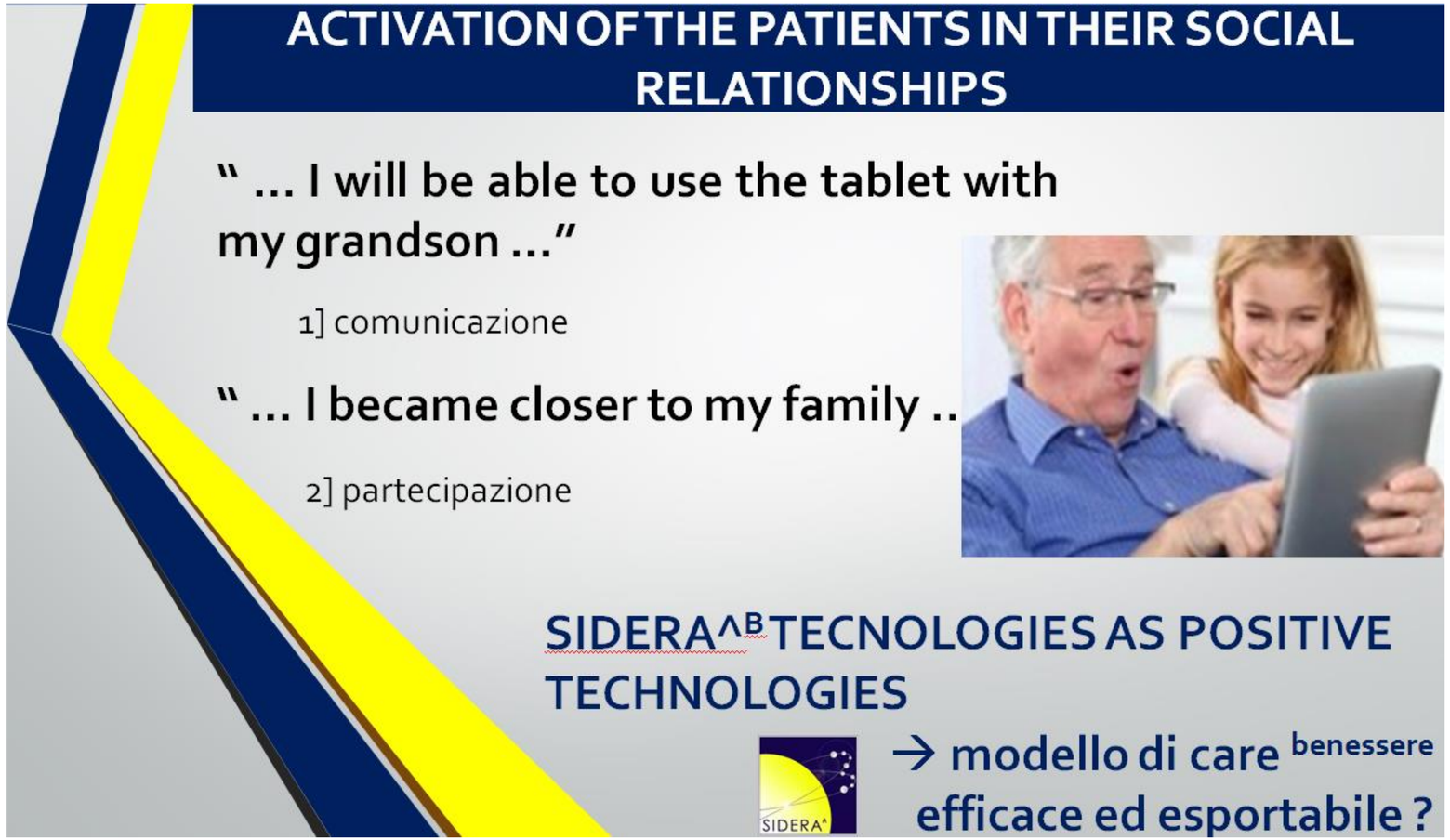
PERCHÈ IL BENESSERE

Bob Kennedy, 1968: «Il PIL misura tutto tranne **ciò che rende la vita degna di essere vissuta**»



Sistema Socio Sanitario
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GRAZIE

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