

**Connected Health Summer School**  
Artimino, Tuscany, Italy 26 - 29 June 2017

Implementation of innovative service in AHA context,  
a real pluriannual ongoing service

## **The Adapted Physical Activity programme**

**Francesco Benvenuti**  
ARS, Regione Toscana, Italy





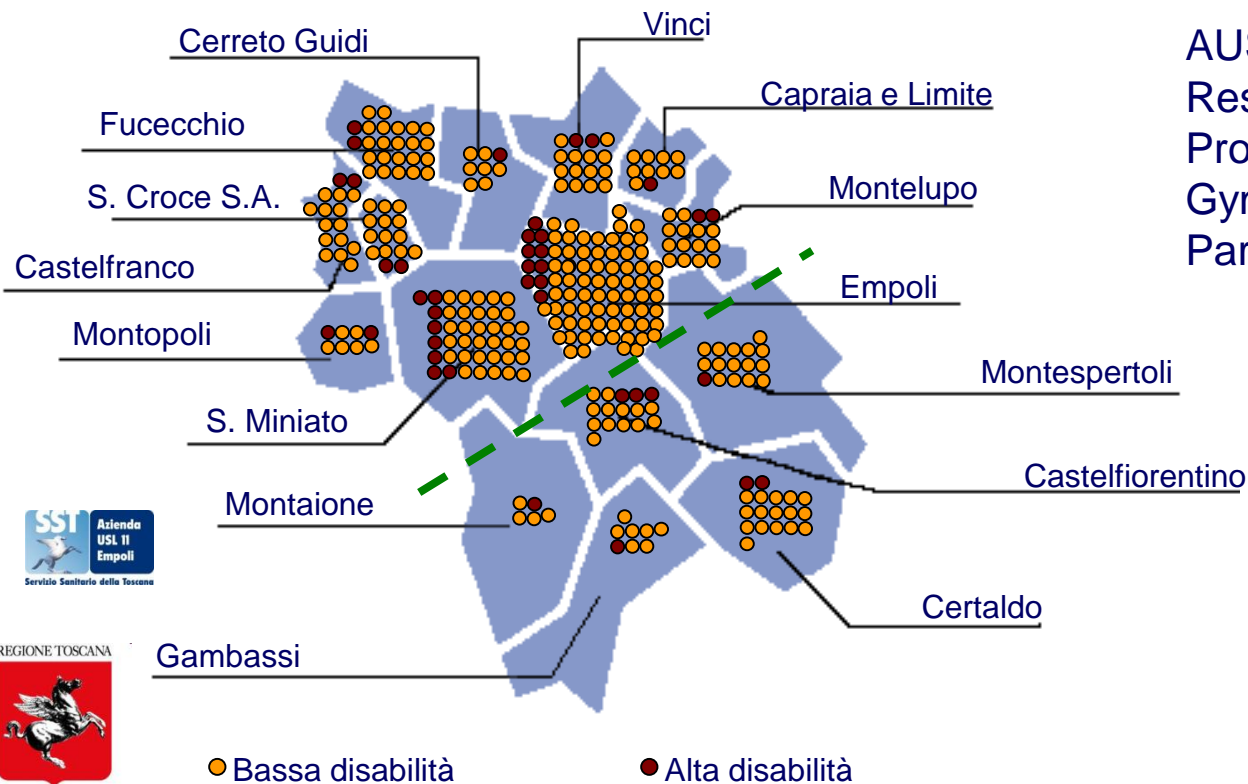
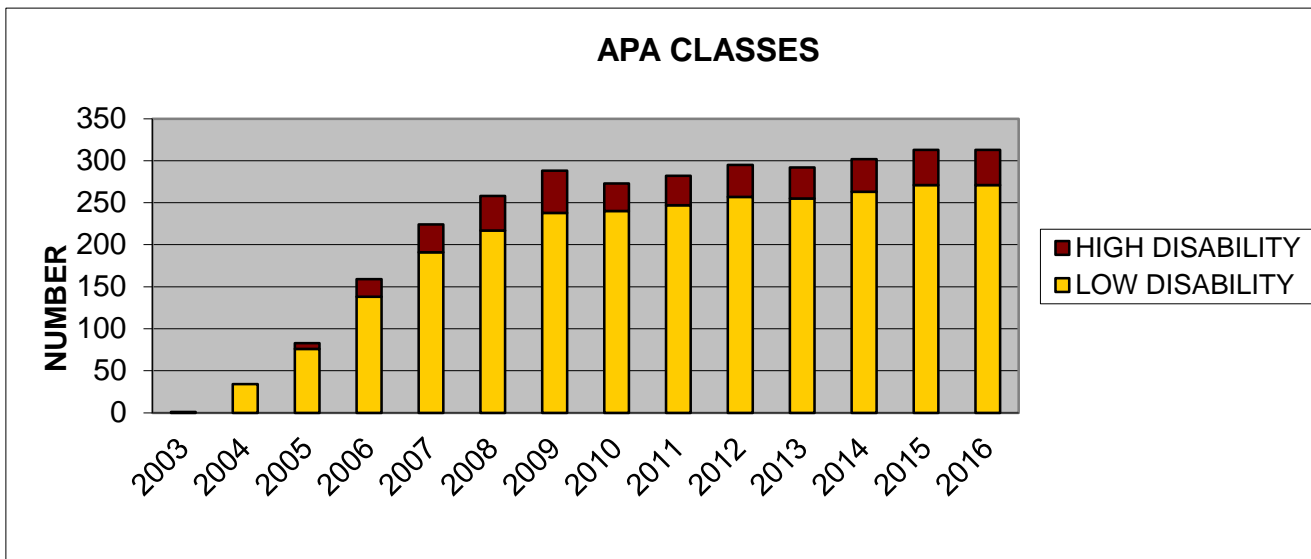
## APAs

Physical activity programs, carried out in group, adapted to chronic alterations of functional status for prevention or mitigation of disability





Municipalities 15  
Residents 231.000  
22%  $\geq 65$  years



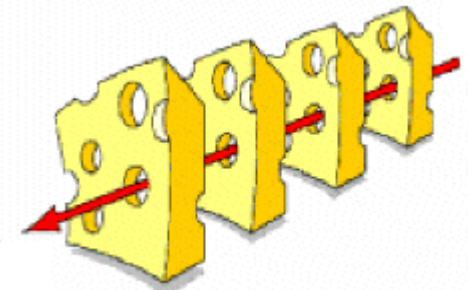
### AUSL11:

Residents: 231.000, 22%  $\geq 65$  years

Providers: 43

Gyms/pools: 103

Participants (dic. 2015): 4600



# Summary

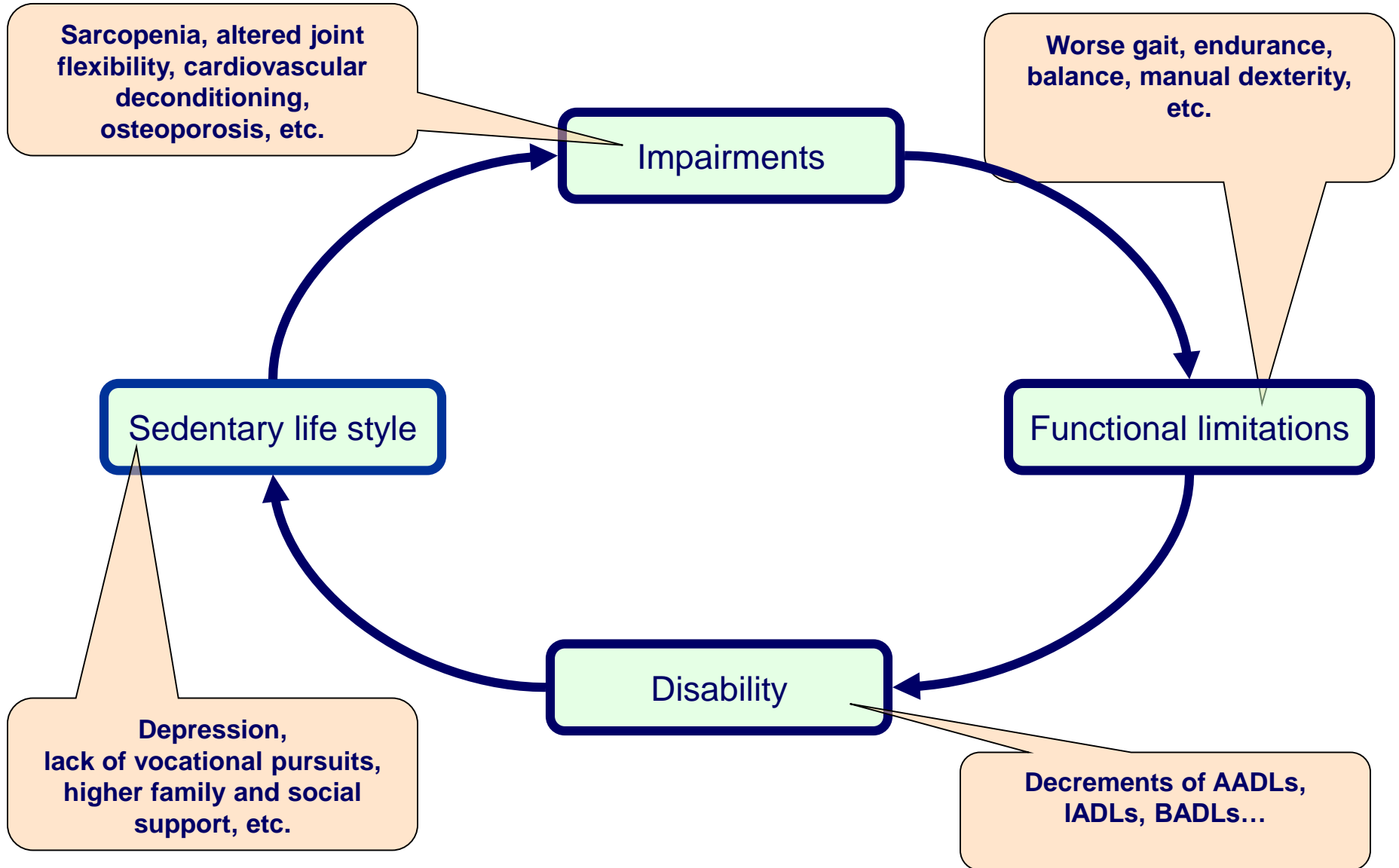
- Bridge evidence to practice
- Promote a collaborative environment
- Prepare future

# Summary

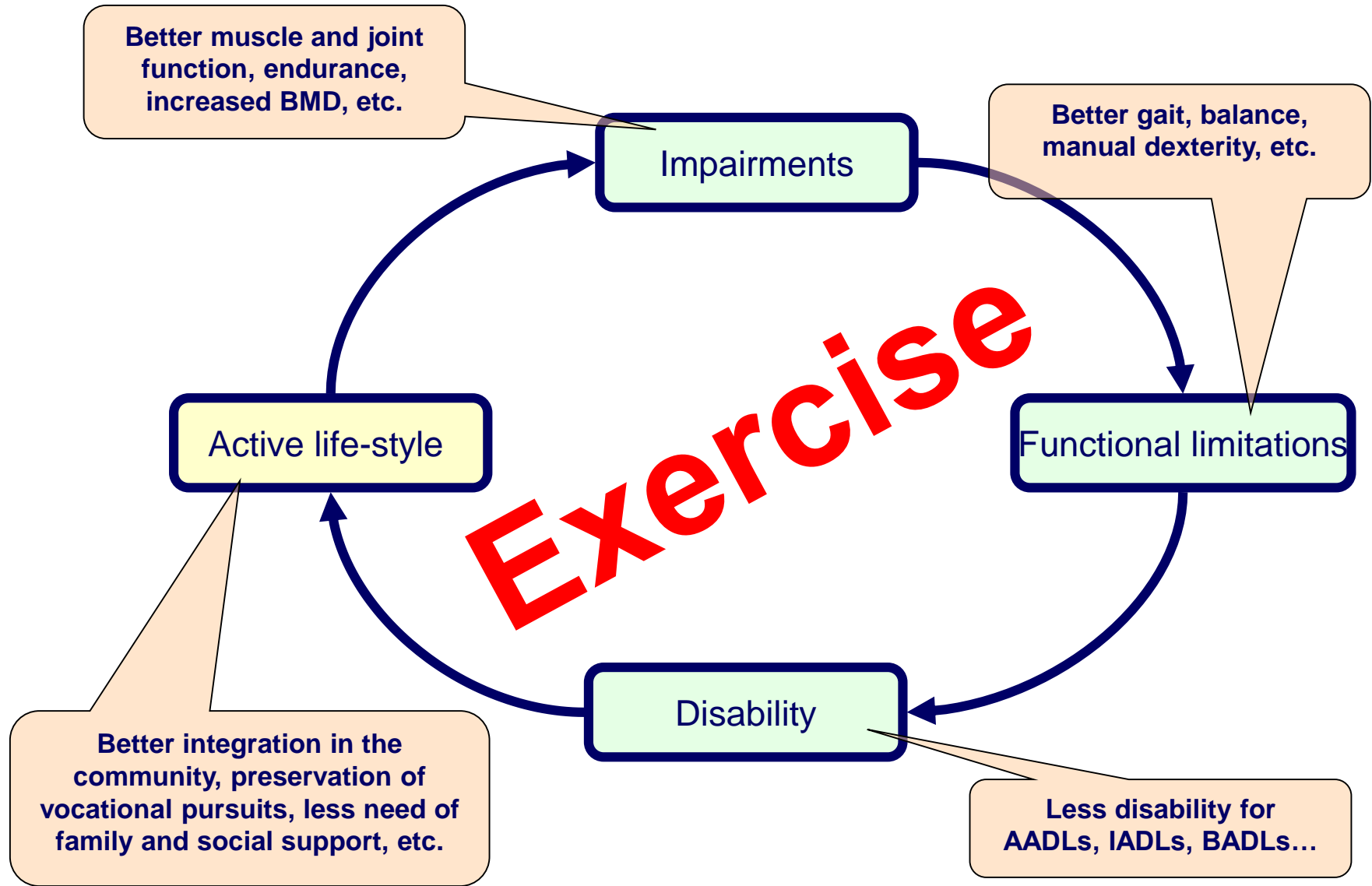
- **Bridge evidence to practice**
- Promote a collaborative environment
- Prepare the future

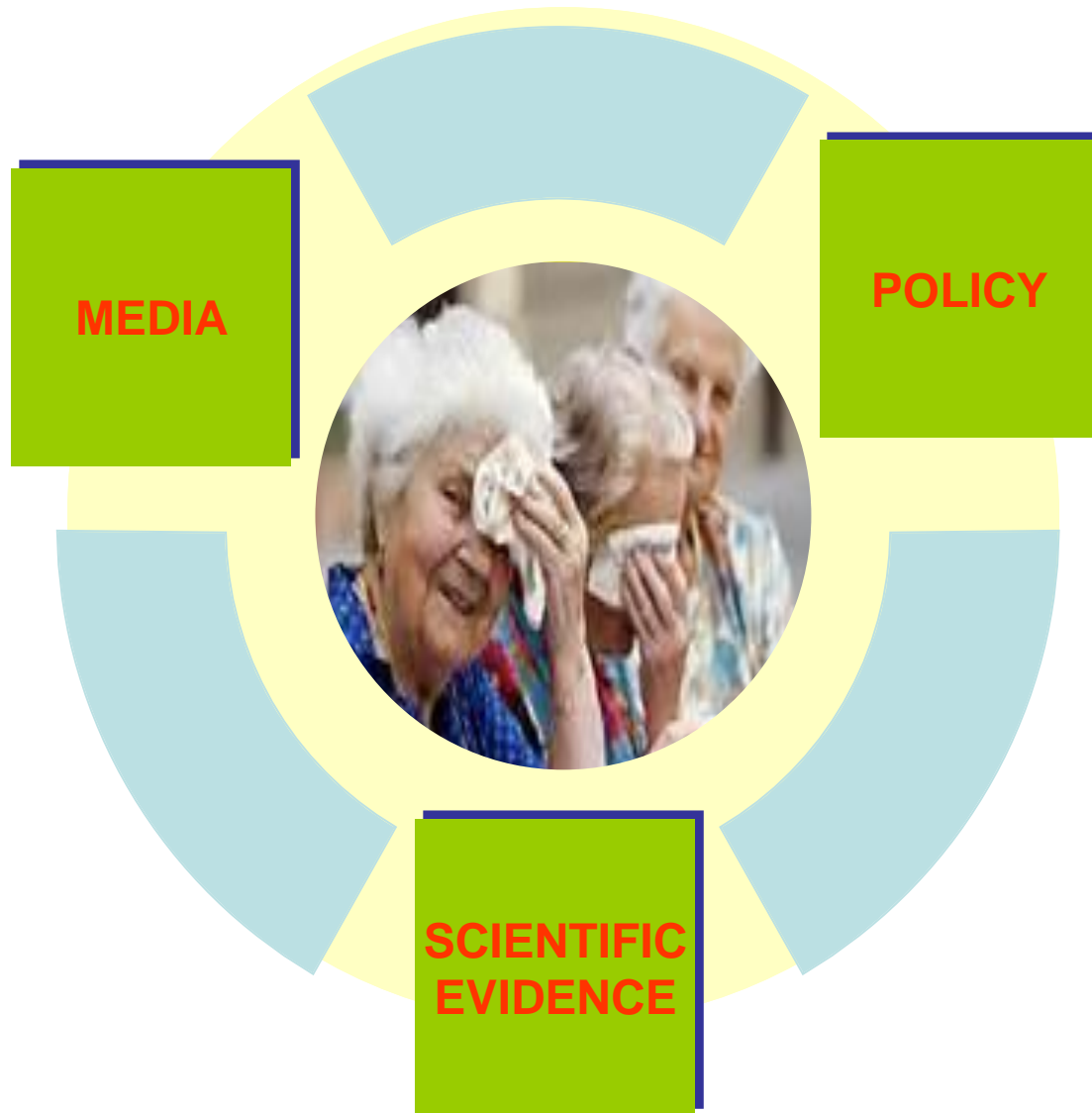
Disease or Syndrome	Treatment or Primary Prevention	Tertiary Prevention
Cancer (breast, colon, prostate)	Yes	No
Coronary artery disease	Yes	Yes
Chronic obstructive pulmonary disease	No	Yes
Dementia (different from multiinfarct dementia)	No	No
Depression	Yes	Yes
Diabetes type 2	Yes	Yes
Mobility impairment, falls	Yes	Yes
Chronic renal failure	Yes	Yes
Peripheral vascular disease	Yes	Yes
Hypertension	Yes	Yes
Back pain	No	Yes
Congestive hearth failure	No	Yes
Obesity	Yes	Yes
Arthritis	No	Yes
Osteoporosis	Yes	Yes
Parkinson's dis., CNS degenerative disorders	No	Yes
Stroke	Yes	Yes
Venous stasis disease	Yes	Yes

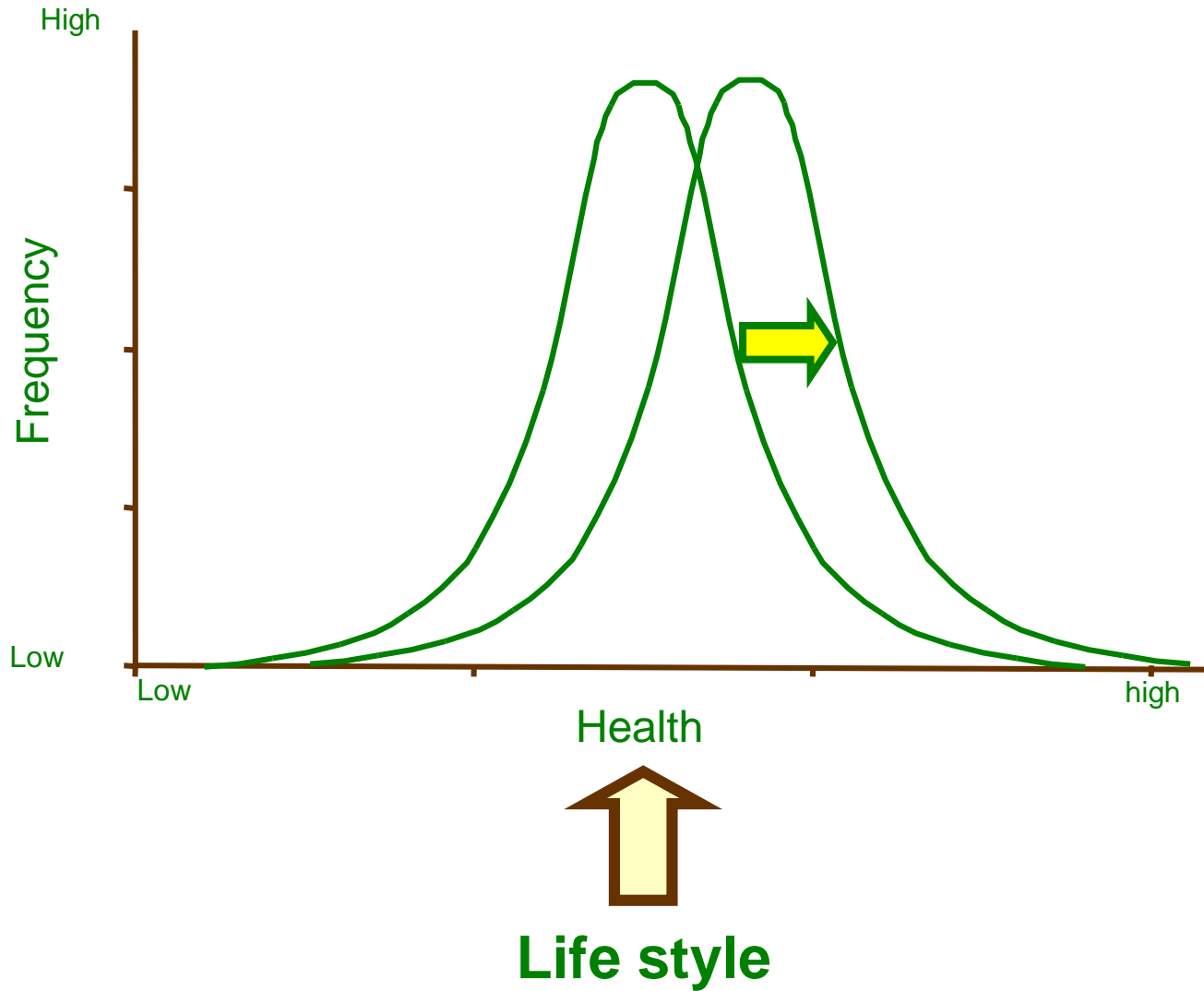
**The exercise is  
Safe & Effective**



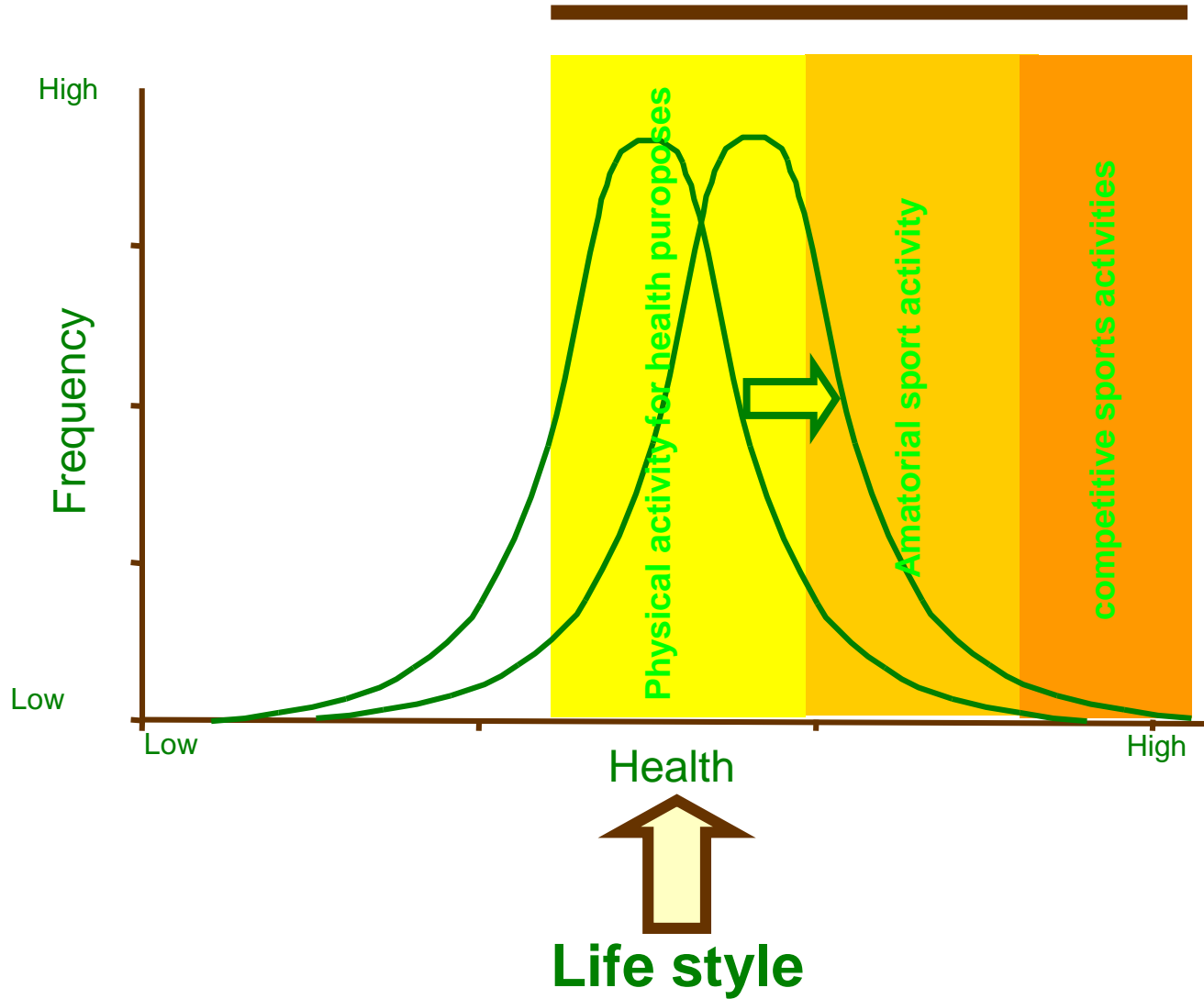








LR 35/03





REGIONE TOSCANA  
GIUNTA REGIONALE

ESTRATTO DAL VERBALE DELLA SEDUTA DEL 30-05-2005 (punto N. 19)

Delibera

N.595

del 30-05-2005

Proponente

ENRICO ROSSI

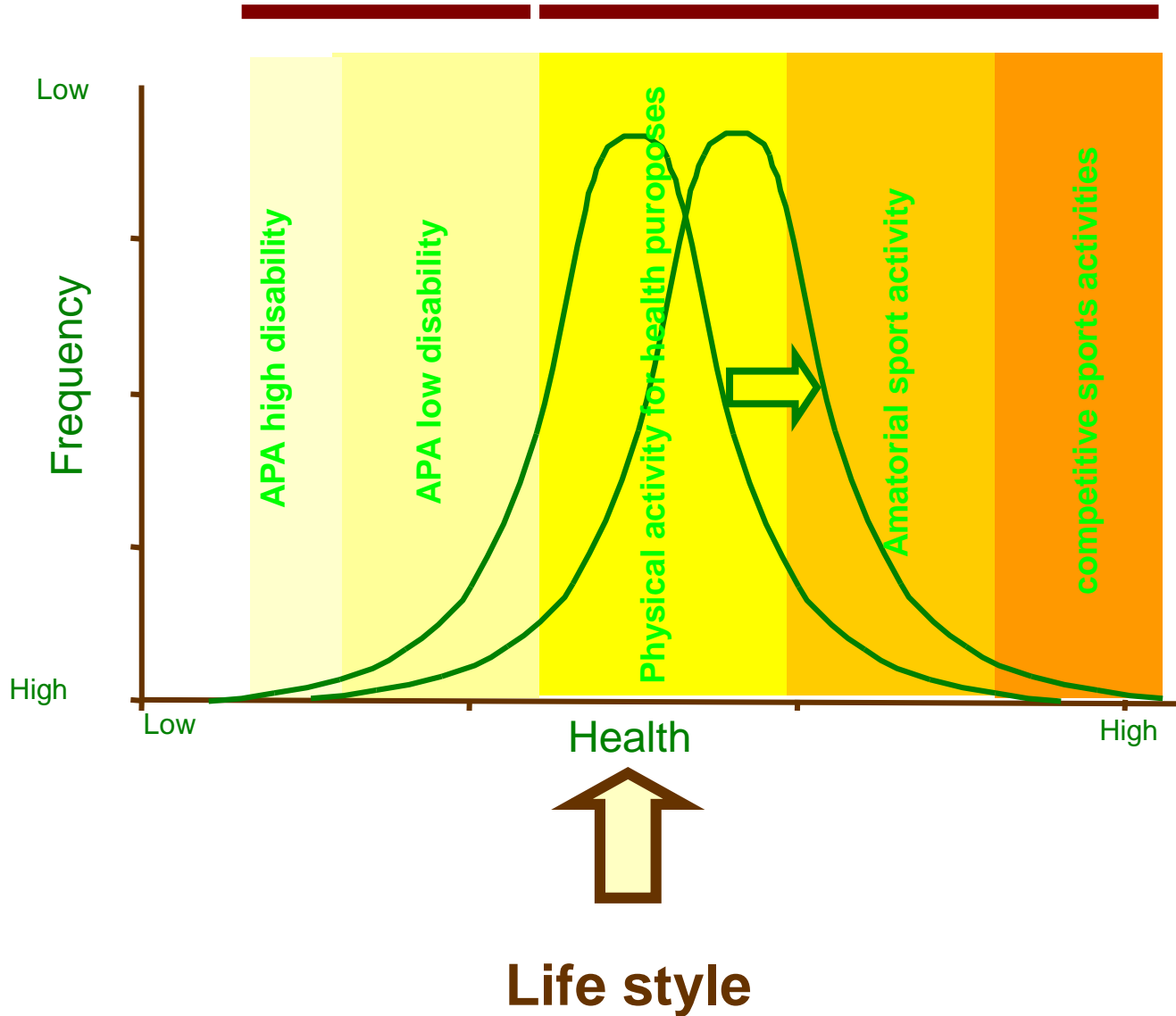
DIREZIONE GENERALE DENTRO ALLE SANITÀ E POLITICHE DI SOLIDARIETÀ  
**FOR HYPOMOBILITY SYNDROMES AND  
OSTEOPOROSIS AND CHRONIC SYNDROMES  
WITH STABILIZED OUTCOMES APA  
PROGRAMS ARE APPROPRIATE.....**  
Proponente: Enrico Rossi, Assessore alla Sanità e Politiche di Solidarietà  
Dirigente Responsabile: Laura Tramonti  
Estensore: Nanni Fratini  
Oggetto:  
Percorso assistenziale per le prestazioni di riabilitazione ambulatoriale (allegato 2b, DPCM  
29 novembre 2001). Percorso assistenziale per le prestazioni di riabilitazione ambulatoriale.

**Aims:**

- follow EBM
- redirect inappropriate rehab treatments towards APA

DGR 595/05  
DGR 459/09

LR 35/03



# Summary

- Bridge evidence to practice
- **Promote a collaborative environment**
- Prepare the future

## Easy and safe access:

- effective and clearly defined exercise programs adapted to participants' functional status
- easy access procedures (for citizens & clinicians)
- low cost AND economically sustainable for trainers and participants
- widespread geographic distribution



REGIONE TOSCANA  
GIUNTA REGIONALE

ESTRATTO DAL VERBALE DELLA SEDUTA DEL 03-06-2009 (punto N. 23)

**Delibera**

**N.459**

**del 03-06-2009**

*Proponente*  
ENRICO ROSSI

DIREZIONE GENERALE DIRITTO ALLA SALUTE E POLITICHE DI SOLIDARIETA'

*Pubblicita'/Pubblicazione:* Atto soggetto a pubblicazione su Banca Dati (PBD)

*Dirigente Responsabile:* Andrea Leto

*Estensore:* Gloria Scopetani

*Oggetto:*

Attività Fisica Adattata (AFA). Approvazione "Documento di indirizzo" e schema di Accordo tra Regione Toscana, Organizzazioni sindacali confederali, sindacati dei pensionati del lavoro autonomo e Enti di promozione sportiva.



# CLEARLY DEFINED EXERCISE PROGRAMS



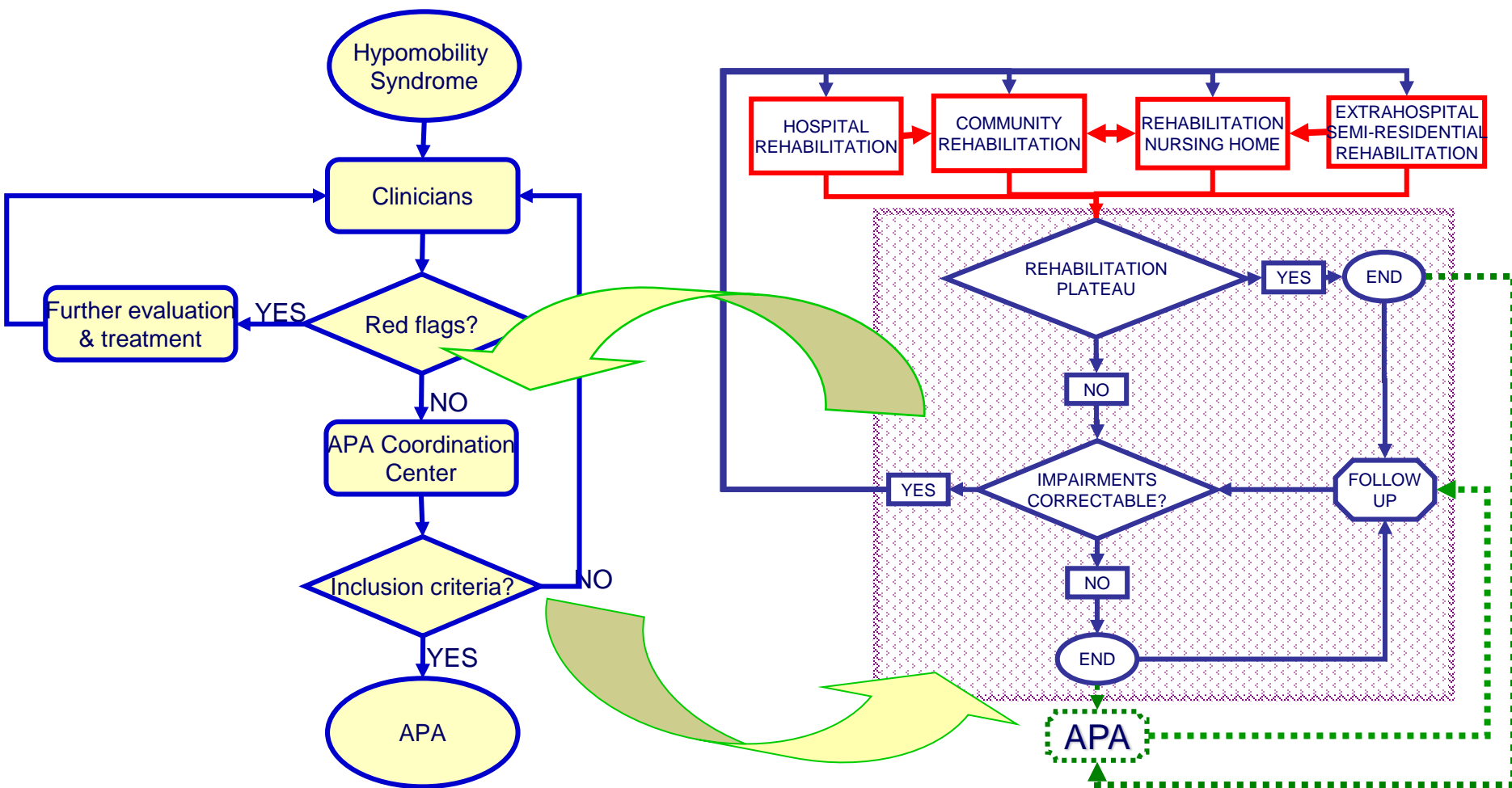
Master Libri  
Via Morgagni, 39/R  
50134 Firenze  
tel. 055/4368577  
fax 055/4249446  
[masterlibri@libero.it](mailto:masterlibri@libero.it)

[www.usl11.toscana.it](http://www.usl11.toscana.it)

# EASY AND SAFE ACCESS PROCEDURES

## Low disability APA Programs

## High disability APA Programs



# SAFETY & EFFECTIVENESS CONTROL



GYM VISITS  
TELEPHONE INTERVIEWS  
AUDITS

## ACCESSI AL PRONTO SOCCORSO

Frattura 5° dito mano sinistra (2004)

\*Frattura omero sinistro (2005)

Frattura polso destro (2006)

Ferita lacera frontale (2008)

\*Ferita lacera forntale (2010)

\*Frattura D12 (2011)

\*Eventi clinici avversi durante le sessioni AFA



# WIDESPREAD GEOGRAPHIC DISTRIBUTION OF GYMS



# 2.20 € per 1 hour session

27 € per month for 3 times/week classes

20 € per month for 2 times/week classes

plus 10 € / year for insurance

€ 7 million

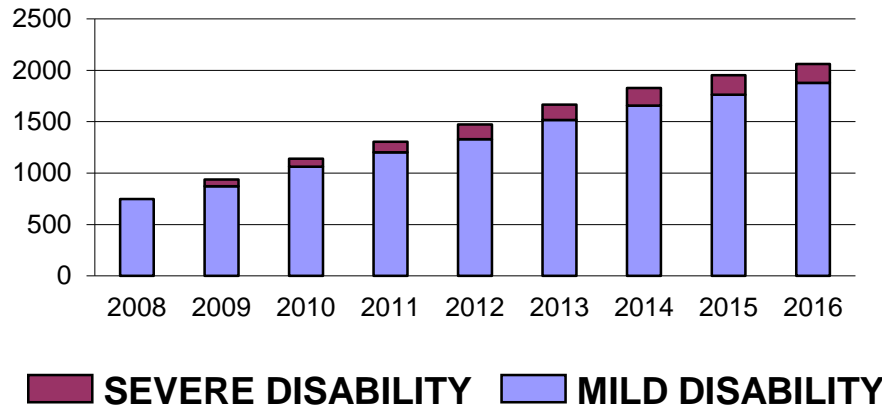
$$\left( \text{Cappuccino} + \text{Croissant} = 2.30 \text{ €} \right)$$

# APA IN TUSCANY

Scaling up...

Residents aged >65 years: 933.022 (23%)

## CLASSES



**Municipalities: 237/278 (85%)**

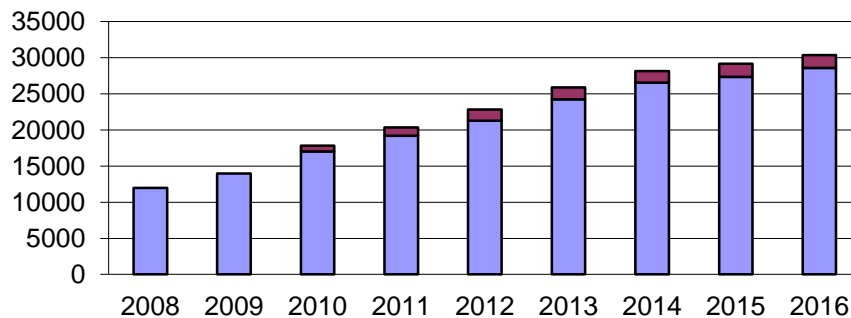
**Providers: 467**

**Gyms/Pools: 876**

**Classes: 2062**

**Participants: ≈30.000**

## PARTICIPANTS

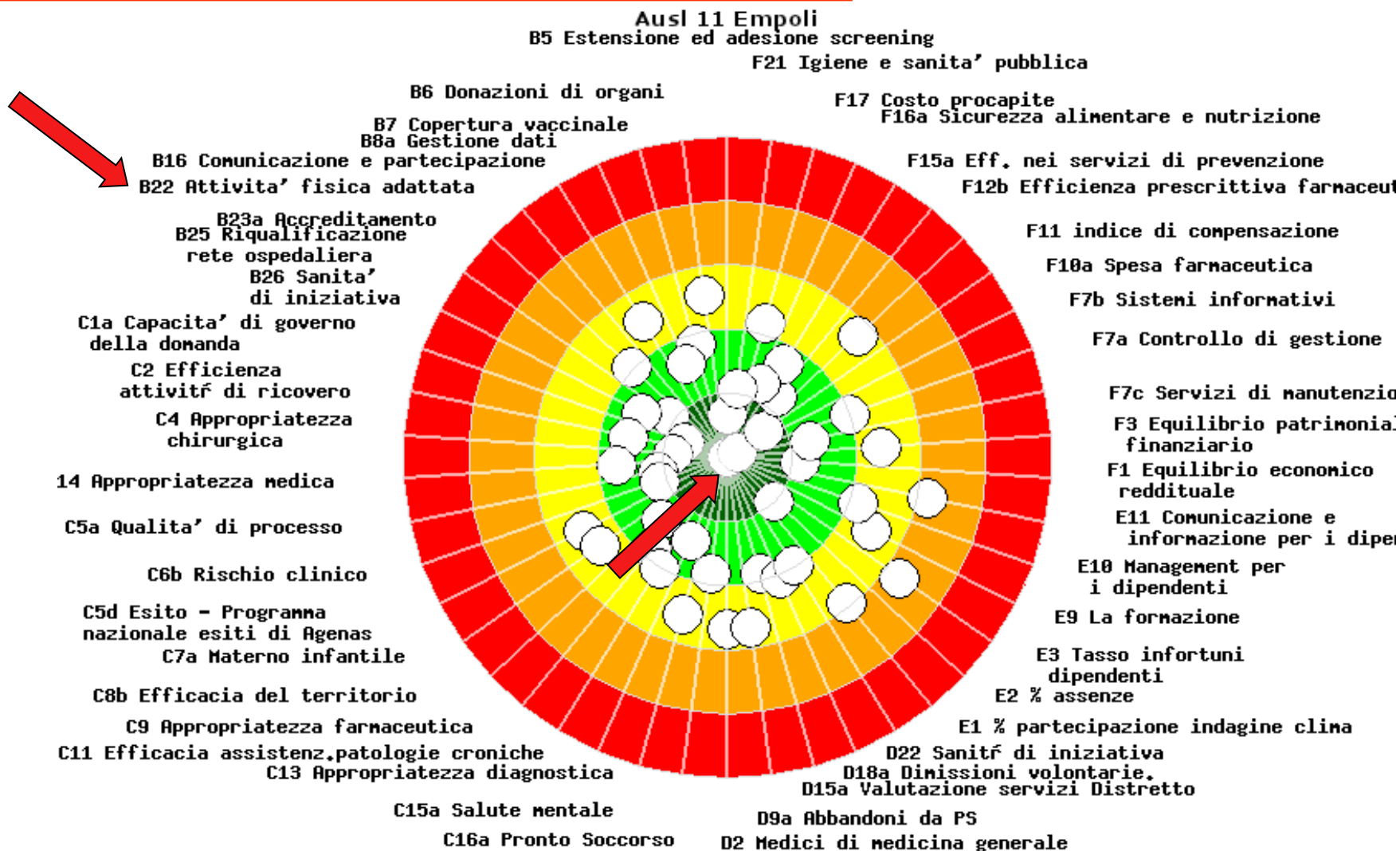


Source: Tuscany Region  
Dicember 2015



# GOALS FOR THE GENERAL DIRECTORS OF THE LOCAL HEALTH AUTHORITIES BY TUSCANY REGION

Promote a collaborative environment





3.2.2017

**Conferenza Stato Regioni ed Unificata**

**ACCORDO TRA IL MINISTRO DELLA SALUTE, LE REGIONI E LE PROVINCE  
AUTONOME DI TRENTO E DI BOLZANO CONCERNENTE IL  
PIANO D'INDIRIZZO PER LA RIABILITAZIONE**

**LA CONFERENZA PERMANENTE  
PER I RAPPORTI TRA LO STATO, LE REGIONI E LE PROVINCE AUTONOME  
DI TRENTO E BOLZANO**

**Visti** gli articoli 2, comma 2, lettera b) e 4, comma 1, del decreto legislativo 28 agosto 1997, n. 281, che attribuiscono a questa Conferenza il compito di promuovere e sancire accordi tra Governo e Regioni, in attuazione del principio di leale collaborazione, al fine di coordinare l'esercizio delle rispettive competenze per svolgere attività di interesse comune;

**Visto** l'articolo 1, comma 7, del decreto legislativo 30 dicembre 1992, n. 502 e successive modifiche e integrazioni, che prevede che, su richiesta delle regioni o direttamente, il Ministero





## Adherence to a Community-Based Strong Predictor of Improved Back Adults: An Observation

Gregory E. Hicks, PT, PhD,\* Francesco E Valentino Fiaschi, PT, MSc,‡ Bruna Lombardi, MD,§ Luciana Inavid Pretzer-Ahoff RN PhD# Gensini Gianfranco MD \*

**JRRD** Volume 45, Number 2, 2008  
Pages 323-328  
Journal of Rehabilitation Research & Development

# Community Exercise: A Vital Component to Healthy Aging

**JRRD** Volume 45, Number 2, 2008  
Pages 329-336  
Journal of Rehabilitation Research & Development

## Adaptive physical activity improves mobility in chronic hemiparesis

Richard F. Macko, MD;<sup>1-3</sup> Francesco Benvenuti, MD;<sup>4\*</sup> Ste Antonia Taviani, MD;<sup>4</sup> Barbara Nesi, PT;<sup>4</sup> Michael Weinrich,<sup>1</sup> *Geriatric Research, Education, and Clinical Center; Department System, Baltimore VA Medical Center (VAMC) Baltimore, MD;*

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## Exercise for chronic stroke survivors: A policy perspective

# Community-Based Adaptive Physical Activity Program for Chronic Stroke: Feasibility, Safety, and Efficacy of the Empoli Model

Mary Stuart, ScD, Francesco Benvenuti, MD, Richard Macko, MD, Antonio Taviani, MD, Luciana Segenni, MD, Federico Mayer, MD, John D. Sorkin, MD, PhD, Steven J. ...

# Community-Based Exercise for Chronic Disease Management: An Italian Design for the United States?

Michael Weinrich, MD<sup>1</sup>, Mary Stuart, ScD<sup>2</sup>, and Francesco Benvenuti



**Reference site**  
**European Innovation Partnership**  
**on Active and Healthy Ageing**  
Action Group A2: Falls prevention and  
management

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Participation in SYN\_7: Impact of community-based  
program on frailty prevention and frailty mitigation

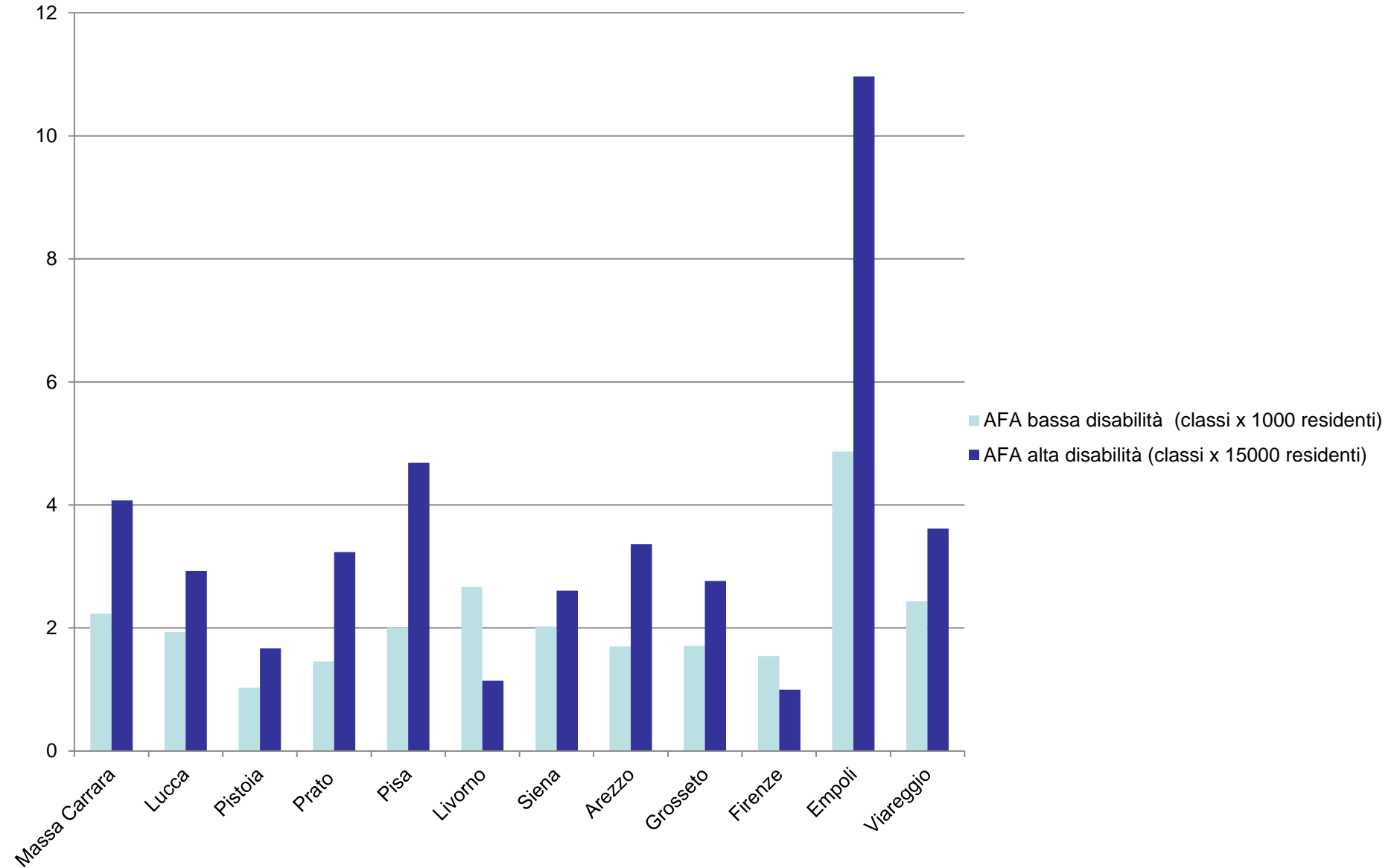


# Summary

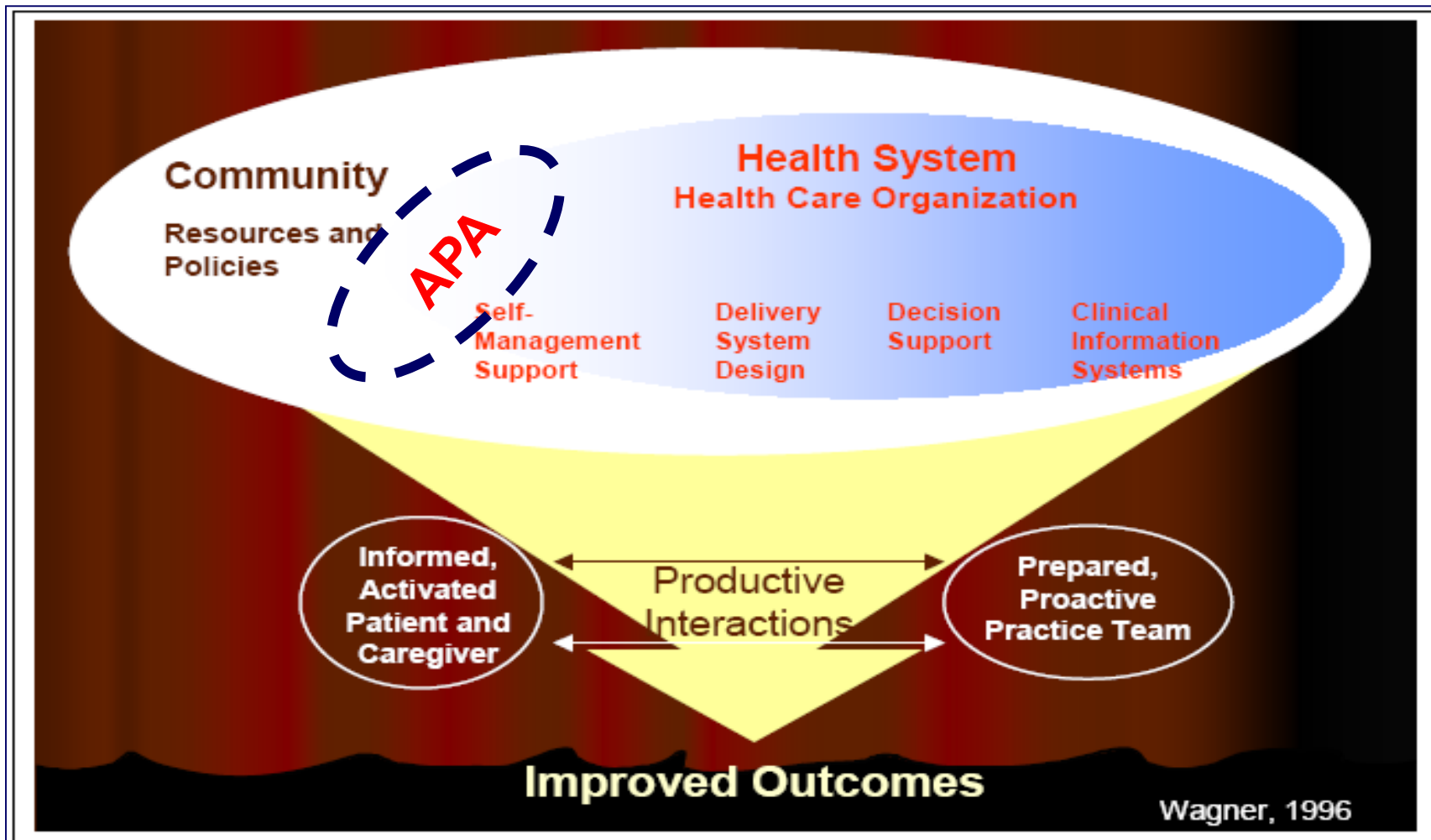
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# APA Variability among Health Authorities (2016)

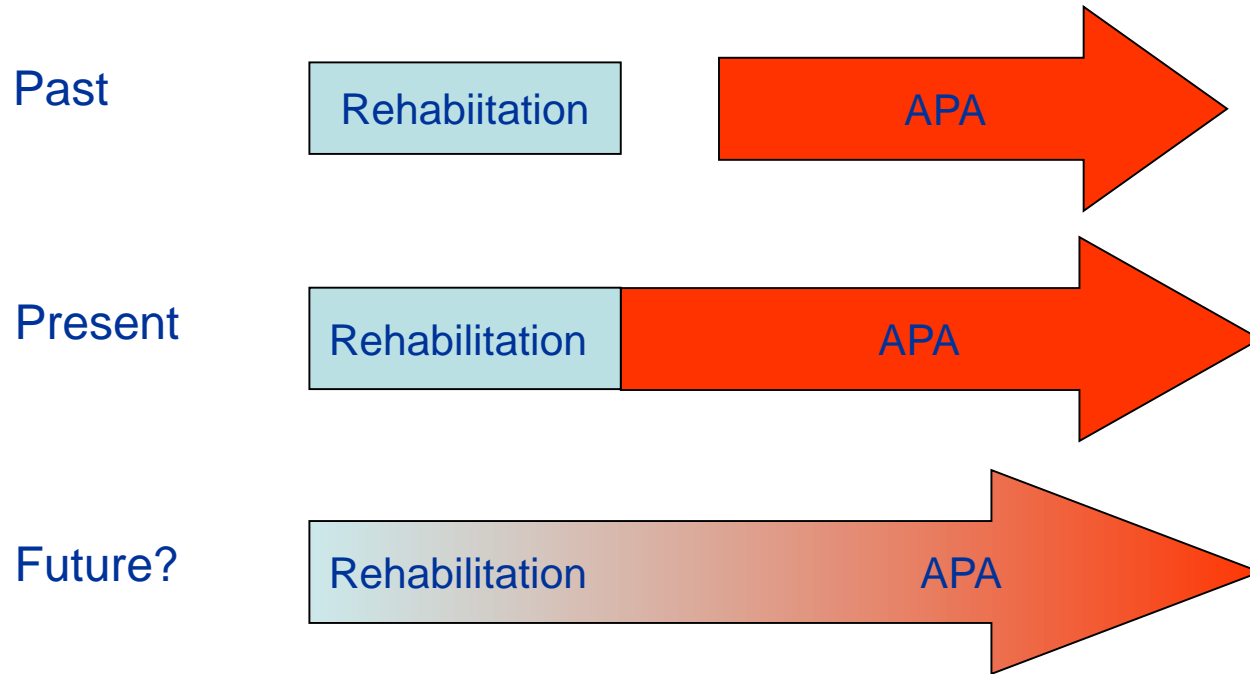


Fonte: Regione Toscana



DGR 650/2016

# Continuity with Rehabilitation





REGIONE TOSCANA  
GIUNTA REGIONALE

**ESTRATTO DAL VERBALE DELLA SEDUTA DEL 25-05-2015 (punto N 38)**

Delibera

N 693

del 25-05-2015

*Proponente*

LUIGI MARRONI

DIREZIONE GENERALE DIRITTI DI CITTADINANZA E COESIONE SOCIALE

*Pubblicità/Pubblicazione Atto soggetto a pubblicazione su Banca Dati (PBD)*

*Dirigente Responsabile EMANUELA BALOCCHINI*

*Estensore PIERGIUSEPPE CALA'*

*Oggetto*

Approvazione Piano Regionale della Prevenzione (PRP) 2014-2018.

Project #18: Adapted Physical Activity revision of:

\*exercise programmes

\*regulations



DRG 1418/ 2016

DGR in progress/2017

Project #19: Implementation of Otago Exercise Program for preventing falls in frail elderly population







# AFA Day

**22 OTTOBRE 2016**  
CONDUCE: PAOLO SPENNATO ORE 14.30

Stadio "C. Castellani"  
Empoli

Con il patrocinio  
Comuni della Conferenza dei Sindaci Empolese-Valdelsa e Valdarno  
Si ringrazia per la partecipazione:

 **Il Palio delle Contrade**  
Città di Fucecchio





# Thank you!

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[francesco.benvenuti@uslcentro.toscana.it](mailto:francesco.benvenuti@uslcentro.toscana.it)



