

Medicina di Attesa, Medicina di Iniziativa: quali spazi si possono aprire per la Medicina Generale

**Come si sta modificando il rapporto con il
paziente: bisogni e risposte**

Corso di Aggiornamento per Coordinatori AFT

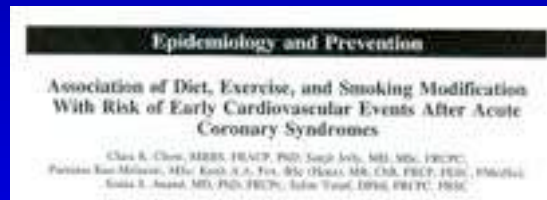
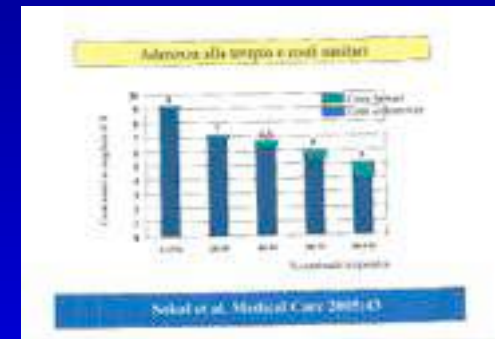
Dr. Pierfranco Ravizza

Presidente Ordine Medici Chirurghi e Odontoiatri - Lecco

12-04-2023

Argomenti della Presentazione

- Evoluzione demografica
- Aderenza terapeutica
- Prevenzione
- Medicina Digitale
- Codice Deontologico

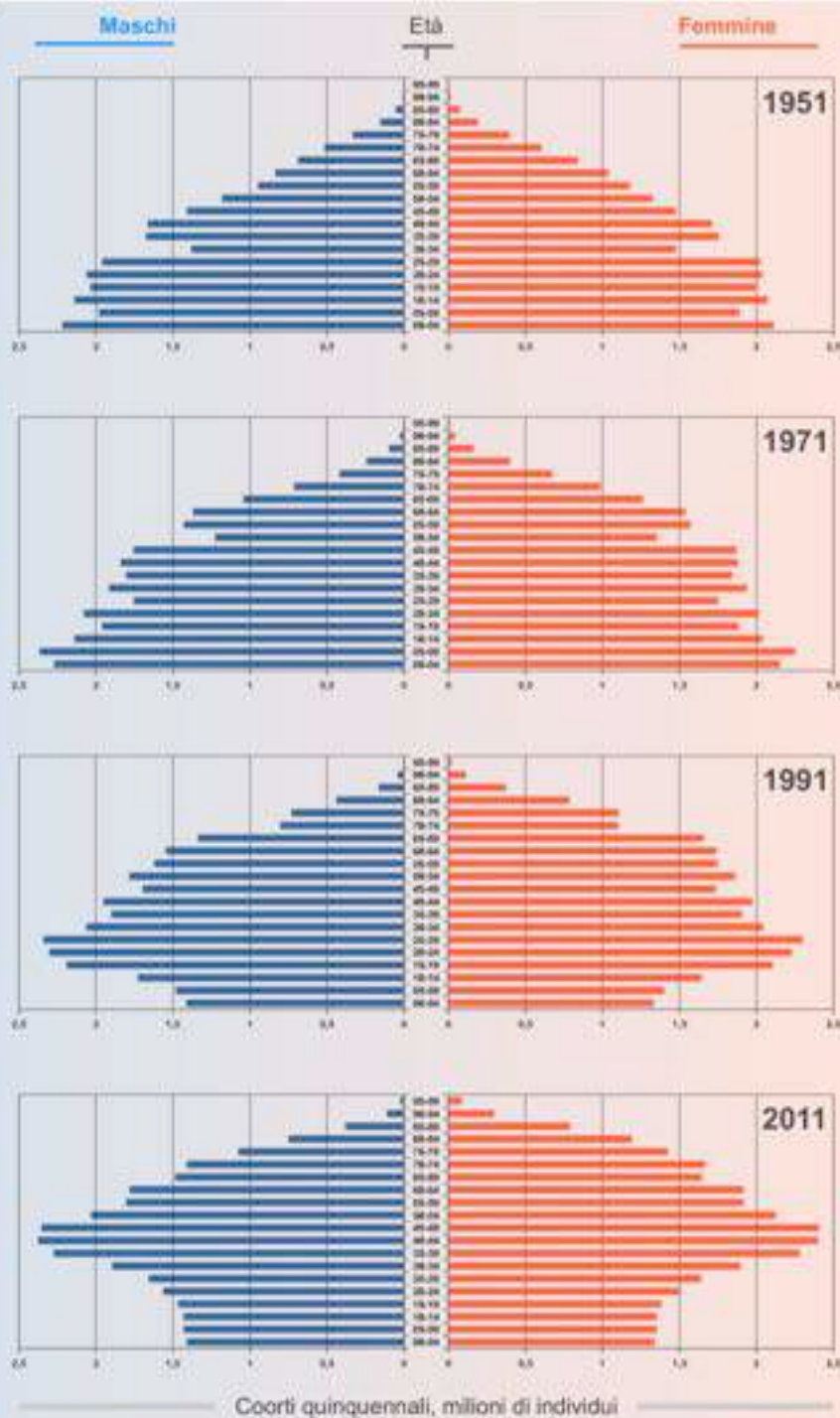


Evoluzione Demografica

EVOLUZIONE DEMOGRAFICA IN ITALIA 1951 - 2011

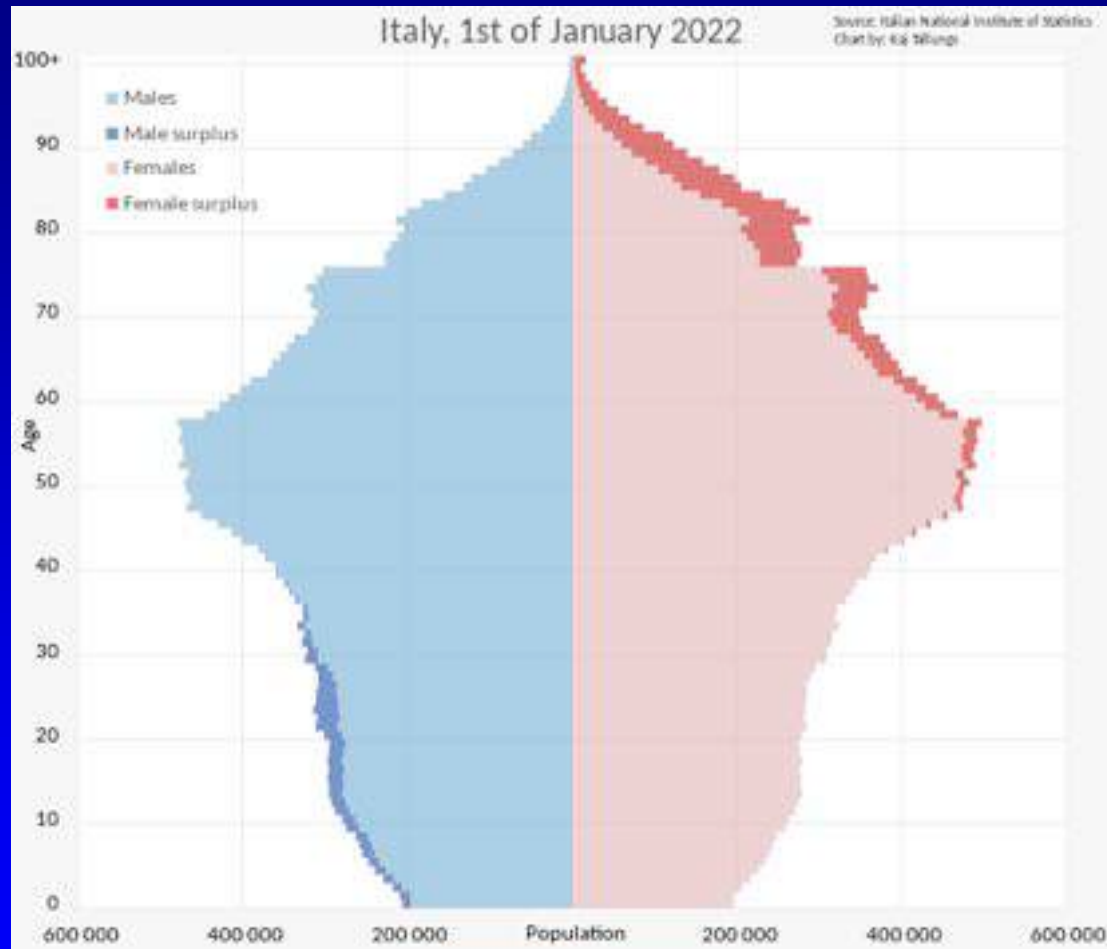
Piramidi demografiche rilevate ai censimenti della popolazione residente, dati Istat

<https://fardiconto.wordpress.com>



Evoluzione
Demografia
Italiana
Periodo
1951-2011

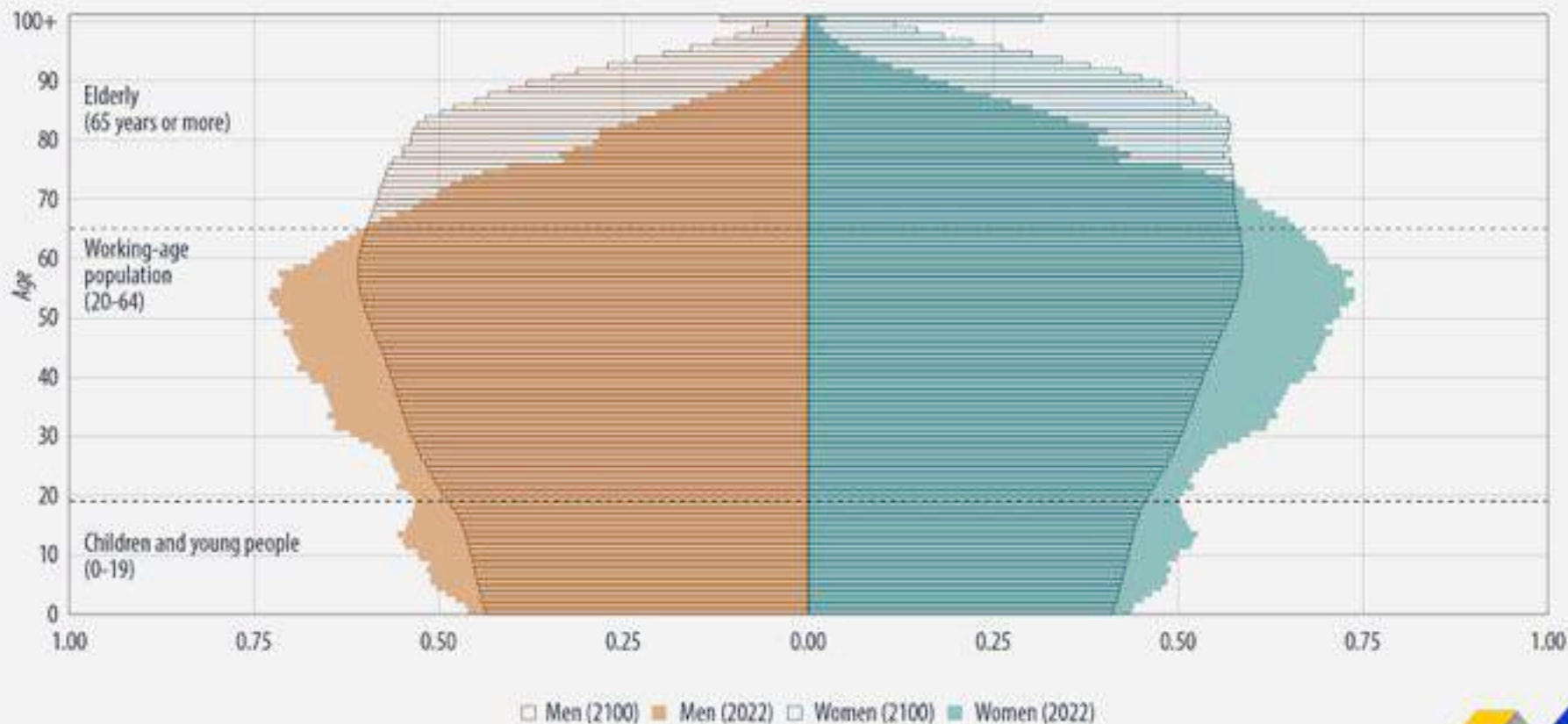
Demografia Italia 2022



Proiezione Demografia Europea XXI secolo

EU population pyramids, 2022 and 2100

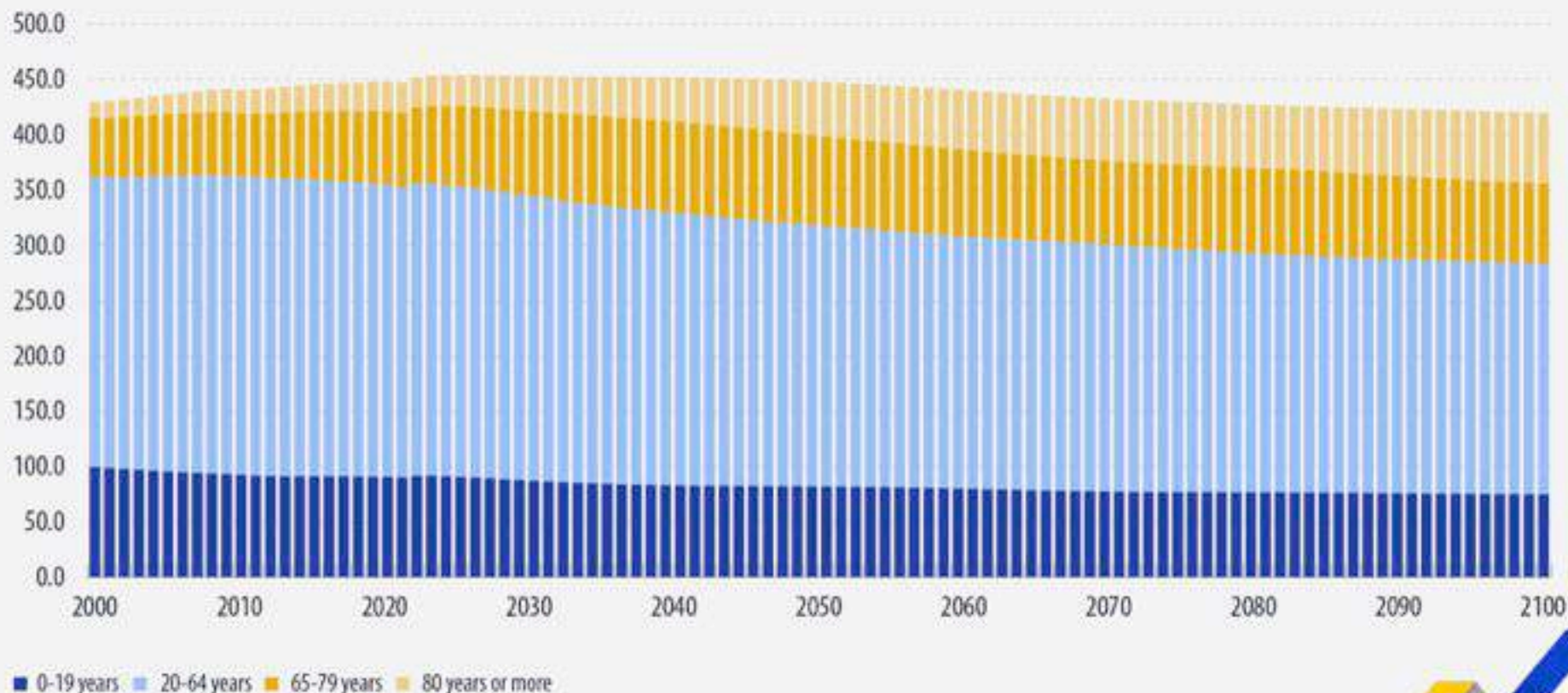
(% of total population)



Proiezione Demografia Europea XXI secolo

Population by major age groups, observed data (2001-2022), and projected data (2023-2100)

(in millions)



Decadimento psico-fisico e malattia

Untangling the Concepts of Disability, Frailty, and Comorbidity: Implications for Improved Targeting and Care

Linda P. Fried,^{1,2,3} Luigi Ferrucci,³ Jonathan Darer,⁴ Jeff D. Williamson,⁵ and Gerard Anderson²

Departments of ¹Medicine, ²Epidemiology, and ³Health Policy and Management, The Johns Hopkins University School of Medicine and Bloomberg School of Public Health, Baltimore, Maryland.

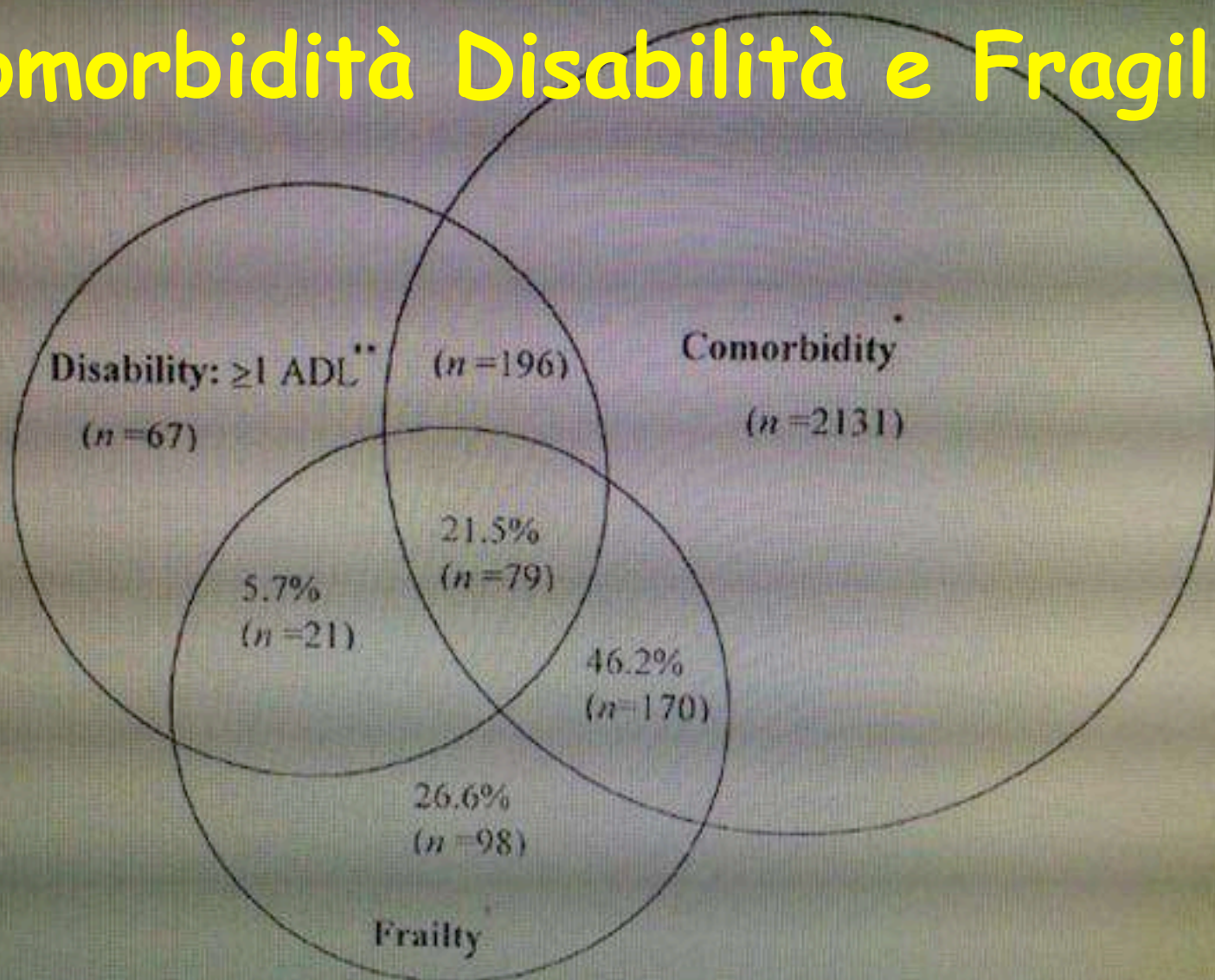
⁴Longitudinal Studies Section, Clinical Research Branch, National Institute on Aging, Bethesda, Maryland.

⁵Mid-Atlantic Permanente Medical Group, Baltimore, Maryland.

⁶Wake Forest University School of Medicine, Winston-Salem, North Carolina.

Three terms are commonly used interchangeably to identify vulnerable older adults: comorbidity, or multiple chronic conditions, frailty, and disability. However, in geriatric medicine, there is a growing consensus that these are distinct clinical entities that are causally related. Each, individually, occurs frequently and has high import clinically. This article provides a narrative review of current understanding of the definitions and distinguishing characteristics of each of these conditions, including their clinical relevance and distinct prevention and therapeutic issues, and how they are related. Review of the current state of published knowledge is supplemented by targeted analyses in selected areas where no current published data exists. Overall, the goal of this article is to provide a basis for distinguishing between these three important clinical conditions in older adults and showing how use of separate, distinct definitions of each can improve our understanding of the problems affecting older patients and lead to development of improved strategies for diagnosis, care, research, and medical education in this area.

Comorbidità Disabilità e Fragilità



Comorbidità - Polipatologia

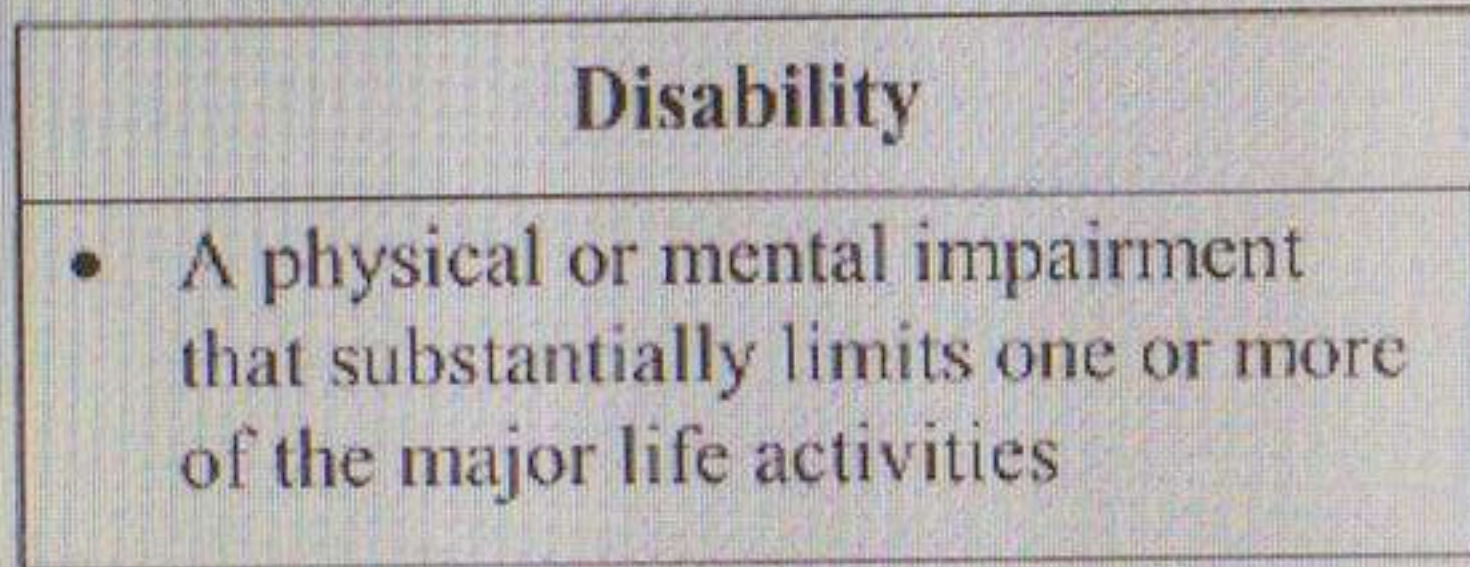
✓ Associazione di 2 o più patologie / disordini cronici

Comorbidity

- The concurrent presence of two or more chronic diseases or conditions

Disabilità

- ✓ Decadimento psico-fisico che determina limitazione delle attività individuali e dell'autonomia di gestione della quotidianità



Fragilità

- ✓ Debolezza, magrezza, instabilità motoria, eventuale deficit cognitivo

Frailty

- Clinical syndrome characterized by multiple characteristics including weight loss, and/or fatigue, weakness, low activity, slow motor performance, and balance and gait abnormalities. Potential cognitive component.

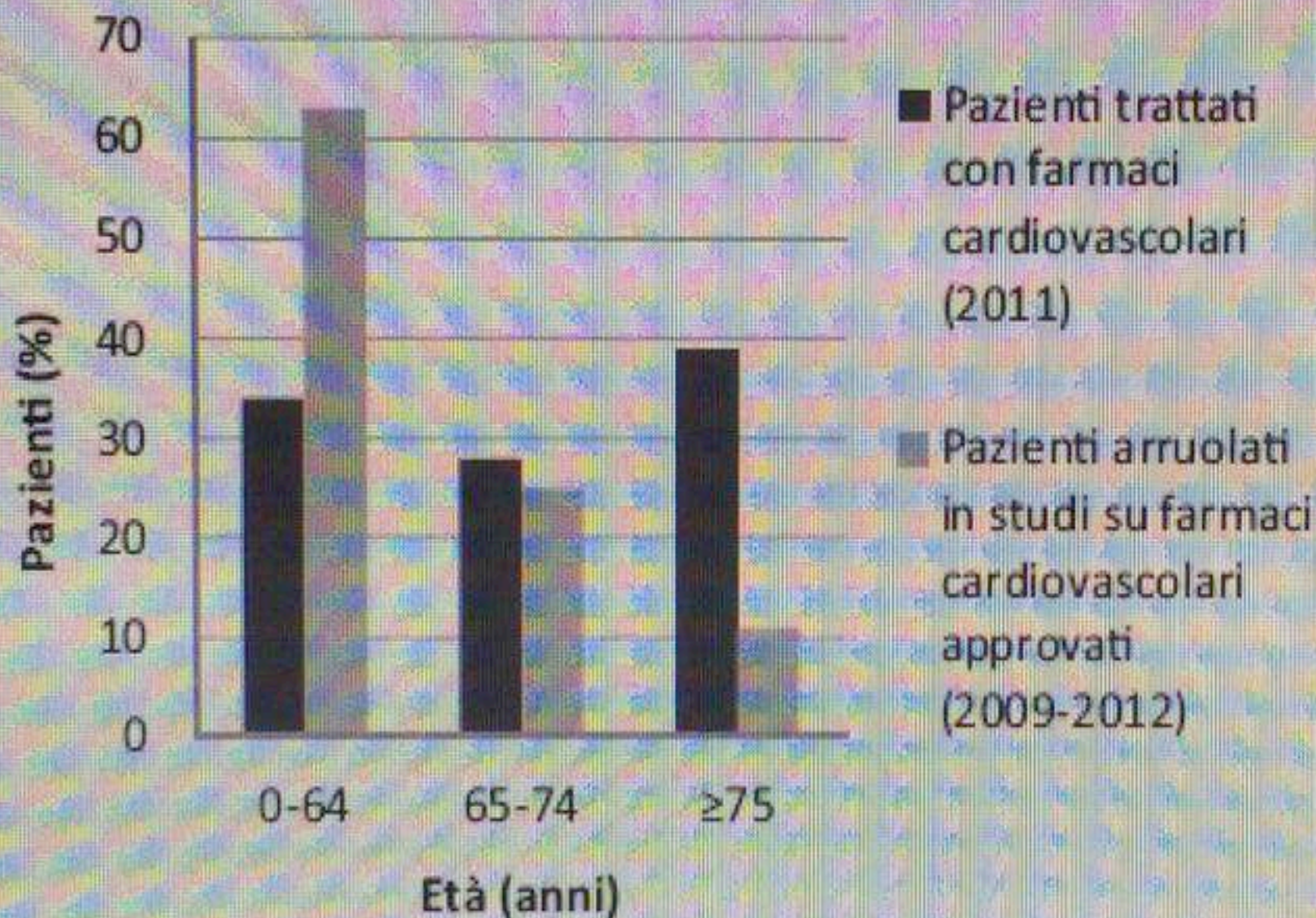
Comorbidità

✓ Politerapia, interazioni farmacologiche e comportamentali potenzialmente conflittuali

Comorbidity

- The concurrent presence of two or more chronic diseases or conditions

- Complexity of treating concurrently present diseases;
 - Interaction causing adverse outcomes
 - Contraindication or incompatibility of treatments for two diseases
 - Prioritization of treatments may be necessary
 - Risk associated with polypharmacy
- Minimize risk for frailty, disability
- Fragmented, multi-provider, multi-setting care associated with less than optimal outcomes
- Potential for prevention of selected individual diseases, minimizing disease severity, interactions



Disabilità

✓ Decadimento fisico e/o psicologico con limitazione non necessariamente in forma di patologia

Disability

- A physical or mental impairment that substantially limits one or more of the major life activities

- Need for rehabilitative, community, supportive services
- Minimize risk for social isolation, dependency, mortality
- Decreased access to health care, hospitalization, long-term care
- Potential for primary, secondary, and tertiary prevention

Fragilità

✓ Associazione di debolezza, affaticabilità, perdita di peso, disturbi di equilibrio e andatura. Eventuale decadimento cognitivo associato

Frailty

- Clinical syndrome characterized by multiple characteristics including weight loss, and/or fatigue, weakness, low activity, slow motor performance, and balance and gait abnormalities. Potential cognitive component.

- Vulnerability to stressors (e.g., hospitalization, medical procedures)
- Need to treat underlying conditions, weakness, undernutrition
- Minimize risk for falls, disability, hospitalization, mortality
- Progressive condition with potential for primary and secondary prevention

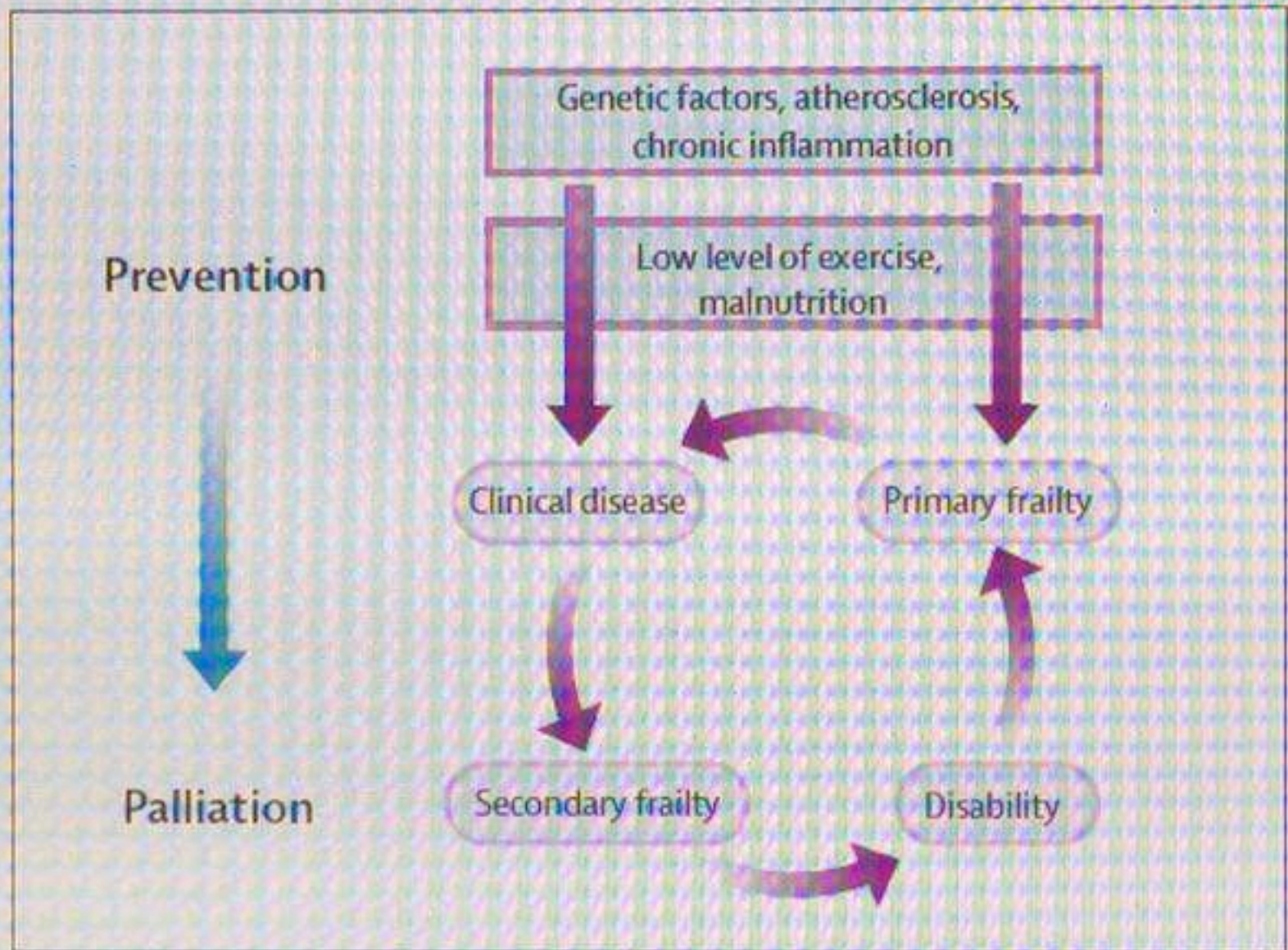
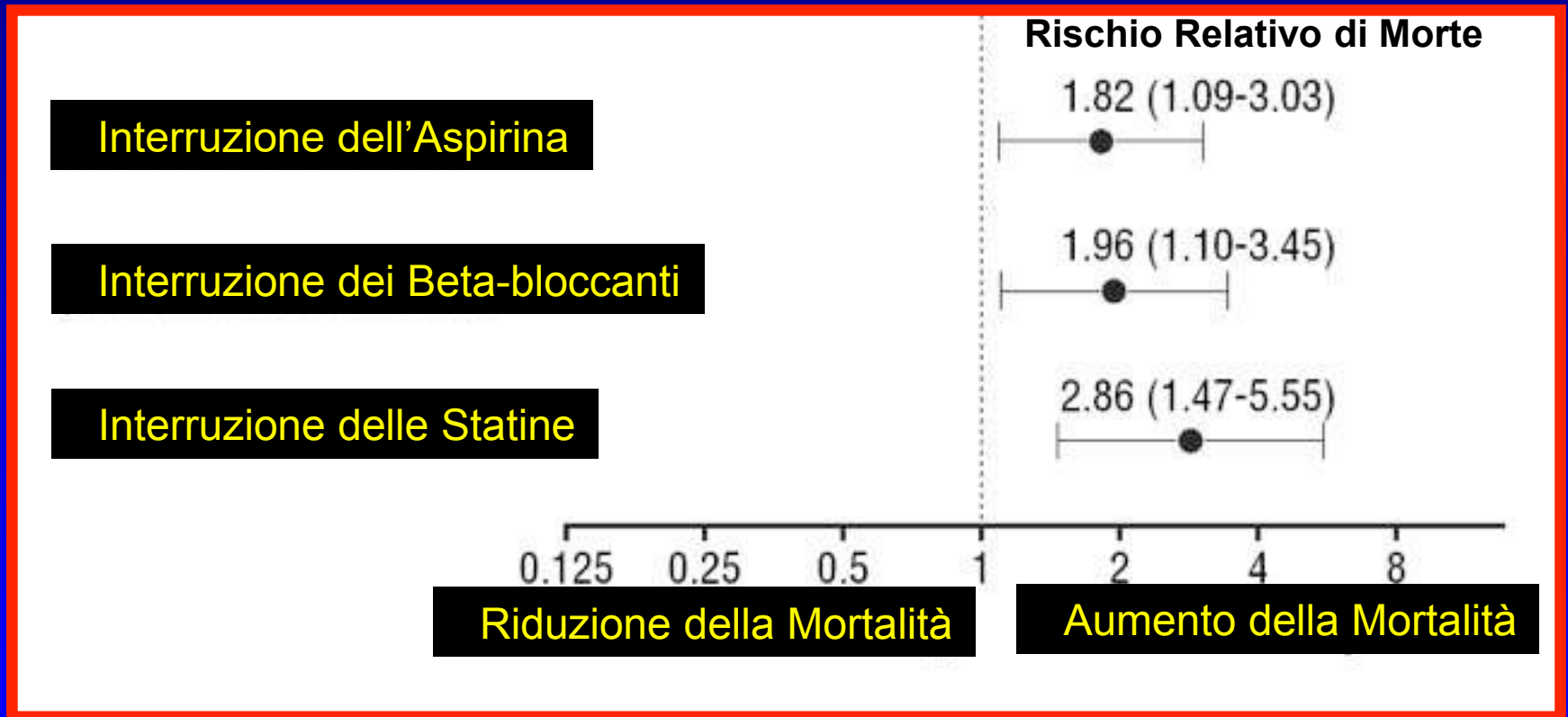


Figure: Pathways to frailty

Aderenza Terapeutica

Le conseguenze cliniche della mancata Aderenza

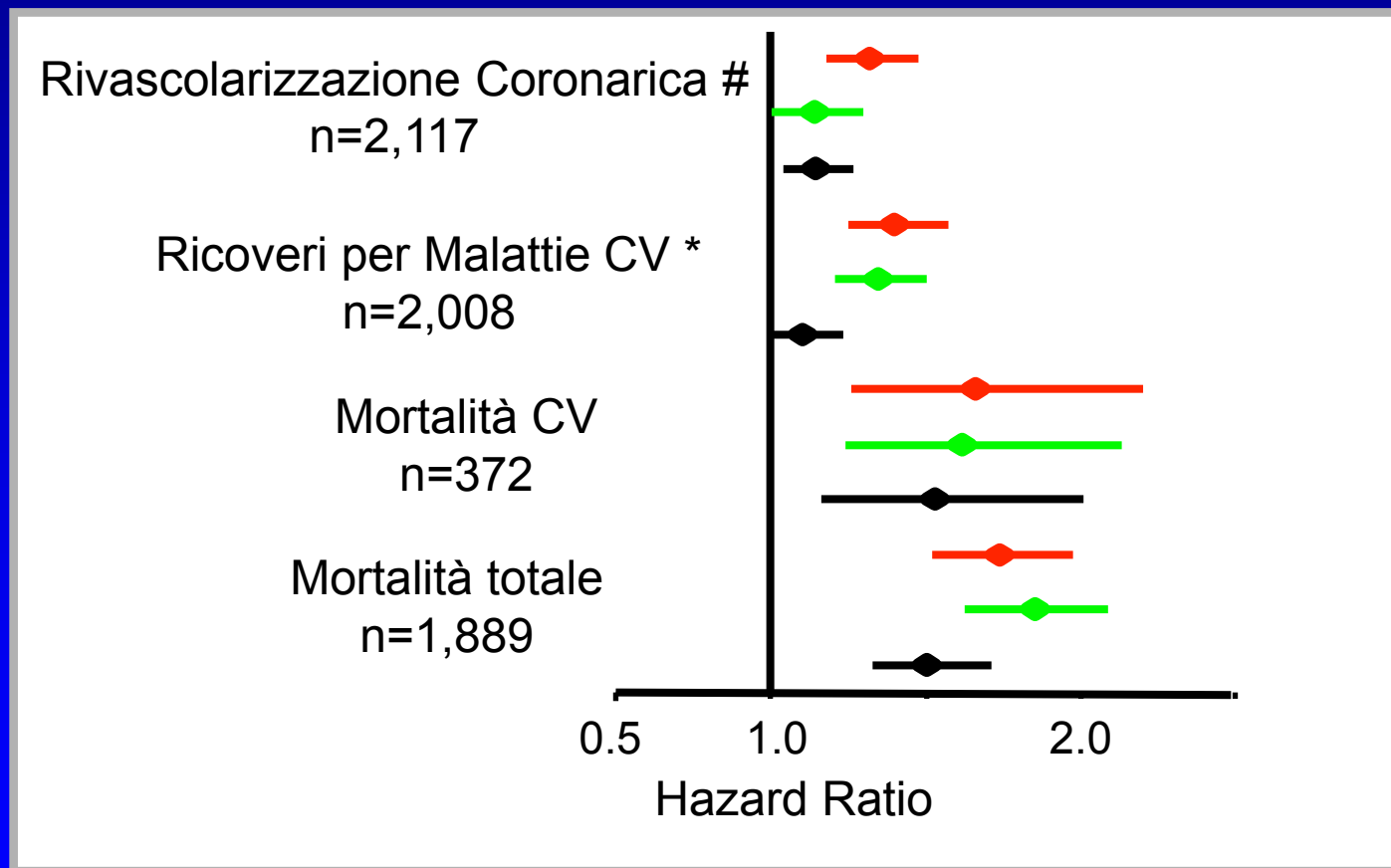
L'Interruzione delle terapia farmacologiche fondamentali dopo un Infarto Miocardico Acuto comporta un incremento della mortalità totale



Le conseguenze cliniche della mancata Aderenza

Livelli di Aderenza alle terapie cardiovascolari inferiori all'80% comportano un aumento del rischio di eventi cardiovascolari avversi nei pazienti con Cardiopatia Ischemica Cronica

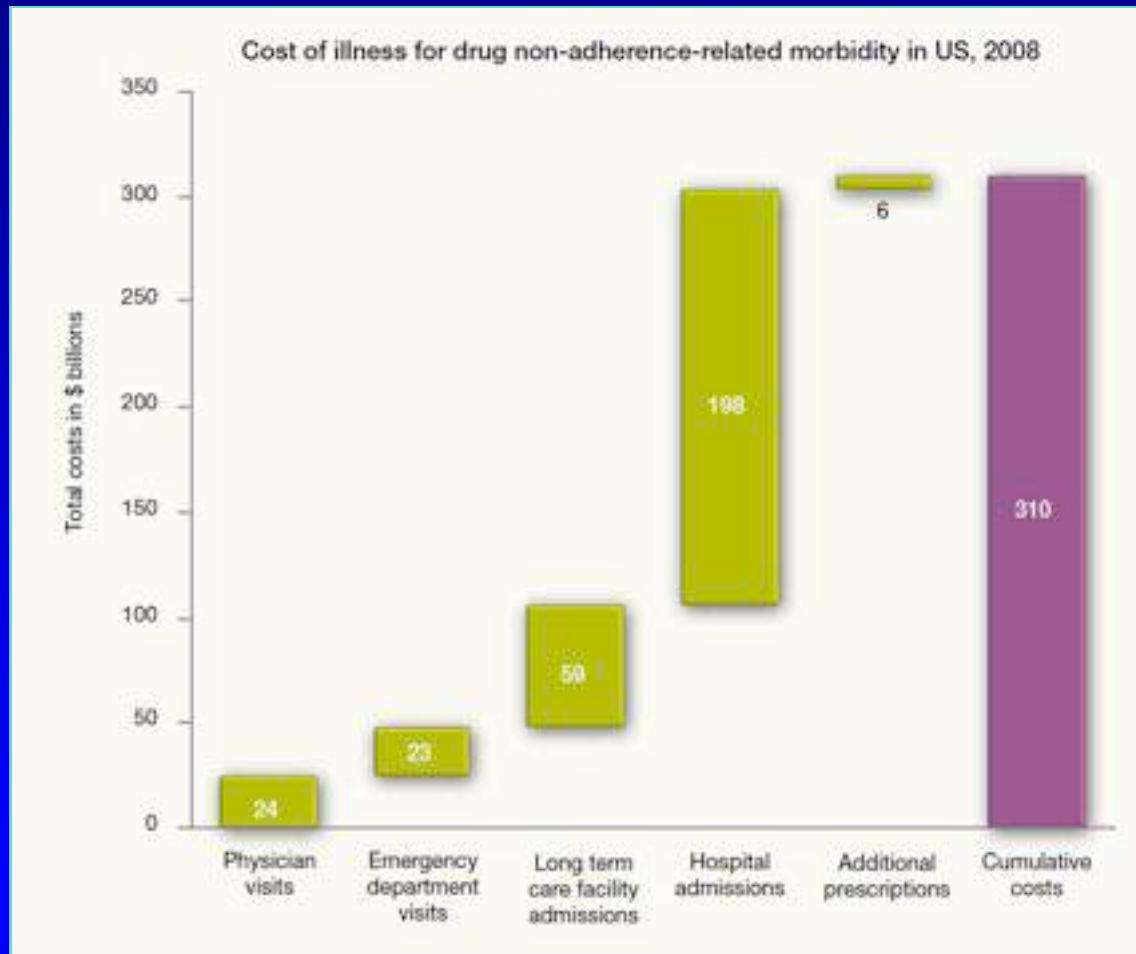
ACE-inibitori —◆— Statine —◆— B-bloccanti —◆—



* Ricovero per IMA o scompenso, # PCI o CABG

Le conseguenze economiche della mancata Aderenza alla terapia farmacologica

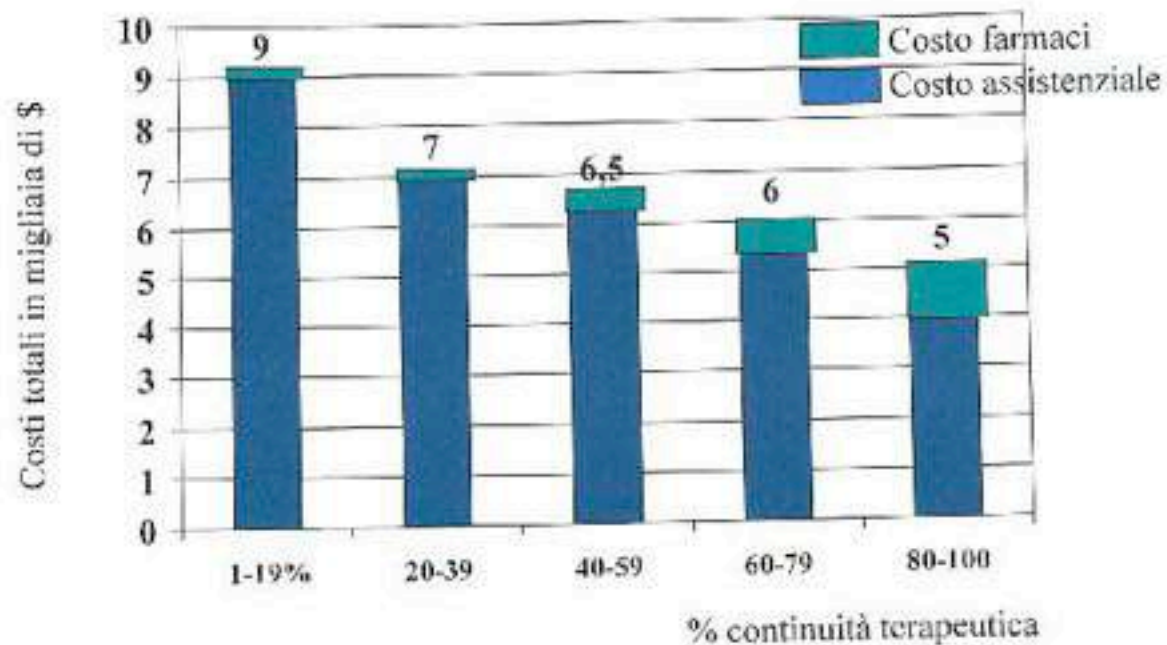
Ogni anno la mancata Aderenza alle prescrizioni farmacologiche costa in USA 310 miliardi di \$



“Thinking outside the pillbox: A system-wide approach to improving patient medication adherence for chronic diseases”, New England Healthcare Institute (NEHI), July 2009

Maggiore Aderenza alle Terapie = Minore Costo Assistenza Sanitaria

Aderenza alla terapia e costi sanitari



Sokol et al. Medical Care 2005;43

Quali Fattori incidono sulla Continuità Terapeutica ?

Paziente	Condizione clinica	Terapia	Sistema sanitario	Condizioni socio-economiche
Età avanzata Sesso femminile Deficit cognitivi Depressione	Patologia cronica Patologie asintomatiche Comorbidità multiple	Elevato numero di farmaci Posologia complessa Effetti collaterali Costi accessori Modificazioni della terapia Inefficacia	Medico non autorevole Cattiva comunicazione Medico-Paziente Visite troppo brevi Visite non frequenti Difficoltà di accesso diretto	Basso livello culturale del Paziente Basso reddito del Paziente Solitudine (assenza di coniuge convivente o di altro care-giver)

Vermeire E, Hearnshaw H, Van Royen P. Patient adherence to treatment: three decades of research. A comprehensive review. *J Clin Pharm Ther* 2001; 26:331-42.

Tipologie degli interventi finalizzati a migliorare la Continuità Terapeutica

Modificazioni della prescrizione terapeutica	Interventi educazionali	Interventi sul comportamento	Interventi "complessi"
Riduzione del numero delle dosi e dei farmaci (monoterapie ed associazioni) Somministrazione transdermica Adattare il regime terapeutico allo stile di vita Facilitare la scorta di farmaci Usare farmaci efficaci con minori effetti collaterali	Audiovisivi Fogli informativi Contatti telefonici Invio di reminder postali, sms, e-mail	Counselling motivazionale breve Controlli a breve termine dopo l'inizio della terapia Uso di promemoria (calendari, diari, porta-pillole, sveglie) Conteggi programmati delle pillole residue Visite domiciliari	Combinazione di 2 o più interventi tra quelli delle altre categorie

Table 19 Recommendations for promoting medication adherence

• Provide clear advice regarding the benefits and possible adverse effects of the medication, and the duration and timing of dosing.
• Consider patients' habits and preferences.
• Reduce dosage demands to the lowest feasible level.
• Ask patients in a non-judgemental way how the medication works for them, and discuss possible reasons for non-adherence (e.g. side effects, worries).
• Implement repetitive monitoring and feedback.
• In the case of lack of time, introduce physicians assistants and/or trained nurses whenever its necessary and feasible.
• In the case of persistent non-adherence, offer multisession or combined behavioural interventions.

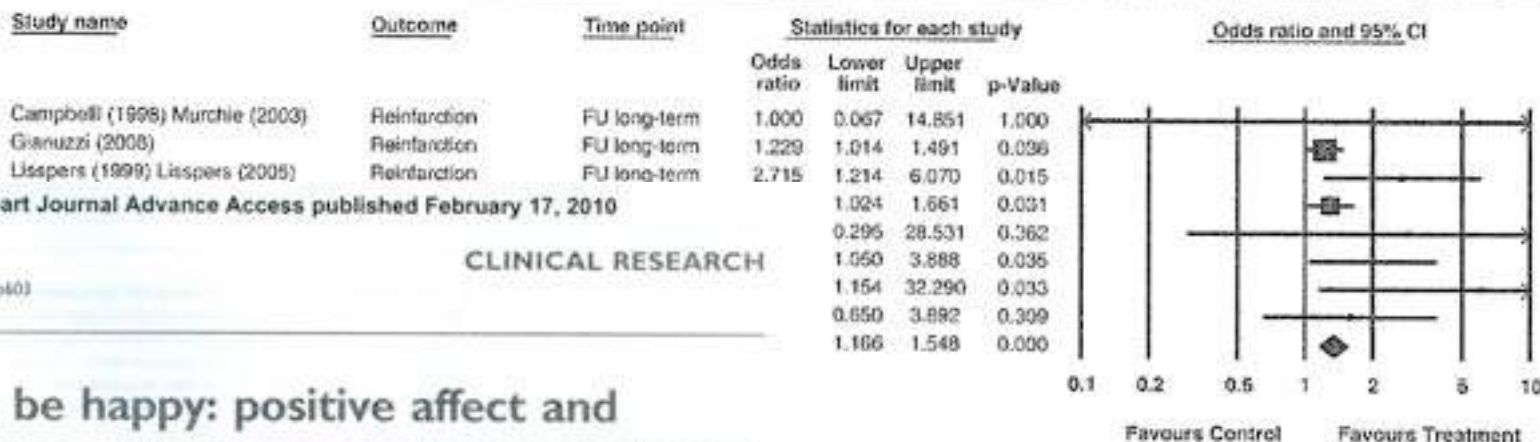
Prevenzione Primaria e Secondaria

Life expectancy in relation to cardiovascular risk factors:
38 year follow-up of 19 000 men in the Whitehall study

Epidemiology and Prevention

Association of Diet, Exercise, and Smoking Modification With Risk of Early Cardiovascular Events After Acute Coronary Syndromes

Effect sizes for reinfarction and readmission



European Heart Journal Advance Access published February 17, 2010



European Heart Journal
doi:10.1093/eurheartj/ehp403

CLINICAL RESEARCH

Don't worry, be happy: positive affect and reduced 10-year incident coronary heart disease: The Canadian Nova Scotia Health Survey

Karina W. Davidson*, Elizabeth Mostofsky, and William Whang

Department of Medicine, Center for Behavioral Cardiovascular Health, Columbia University Medical Center, 633 West 168th Street, Box 3408, New York, NY 10032, USA

Interventi Non-Farmacologici di Prevenzione Cardiovascolare: solo pregi, effetto additivo, a costo zero

- ✓ Attività fisica regolare e controllata
- ✓ Dieta adeguata quantitativamente e qualitativamente
 - ✓ Controllo del peso
 - ✓ Astensione dal fumo
- ✓ Stimoli al benessere fisico e psicologico (amicizie, hobby, musica, lettura, svago)

Effect Size Estimates of Lifestyle and Dietary Changes on All-Cause Mortality in Coronary Artery Disease Patients

A Systematic Review

TABLE 5. Approximate Mortality Reduction Potential of Preventive Drug Interventions After MI

Intervention	Mortality Risk Reduction, Mean (95% CI)
Low-dose aspirin ¹¹¹	18% (1%–30%)
Statins ¹¹²	21% (14%–28%)
β -Blockers ¹¹³	23% (15%–31%)
ACE inhibitors ¹¹⁴	26% (16%–35%)

Effect Size Estimates of Lifestyle and Dietary Changes on All-Cause Mortality in Coronary Artery Disease Patients

A Systematic Review

TABLE 4. Approximate Mortality Reduction Potential of Lifestyle and Dietary Changes Estimated From Studies in CAD Patients and the General Population

Recommendation	Mortality Risk Reduction Estimated From Studies in CAD Patients	Mortality Risk Reduction Estimated From Cohort Studies in General Population
Smoking cessation	35%	50%
Physical activity	25%	20%–30%
Moderate alcohol	20%	15%
Combined dietary changes	45%	15%–40%

- All'ingresso: fumo 42%, ipertensione 39%, 51% ipercolesterolemia.
- A fine studio: fattori di rischio CV erano ridotti ciascuno di 2/3.
- Tra gli estremi (assenza o presenza dei tre Fattori di Rischio CV) si è registrata differenza di sopravvivenza di 10 anni a favore dei soggetti senza FR (23,7 vs 33,3).
- Considerando anche diabete, obesità e lavoro disagevole, la differenza di sopravvivenza può giungere a 15 anni (20,2 vs 35,4).

BMJ

RESEARCH

Life expectancy in relation to cardiovascular risk factors: 38 year follow-up of 19 000 men in the Whitehall study

Robert Clarke, reader in epidemiology and public health medicine,¹ Jonathan Emberson, senior statistician,¹ Astrid Fletcher, professor of epidemiology,² Elizabeth Breeze, lecturer in epidemiology,³ Michael Marmot, professor of epidemiology and public health medicine,³ Martin J Shipley, senior lecturer in medical statistics³

Aspettativa di vita aumentata fino a circa 10 anni con un buon controllo dei tre principali fattori di rischio CV

Table 4 | Hazard ratios for vascular and non-vascular mortality and life expectancy by cardiovascular risk factors at entry when examined in combination

Risk factors* at baseline	Prevalence at baseline (%)	Vascular deaths		Non-vascular deaths		Mean (SE) life expectancy at age 50
		Deaths	HR† (95% CI)	Deaths	HR (95% CI)	
Non-smokers						
Low SBP, low cholesterol	17.0	701	1.0	955	1.0	33.3 (0.2)
Low SBP, high cholesterol	17.2	861	1.21 (1.09 to 1.33)	995	1.03 (0.94 to 1.12)	32.2 (0.2)
High SBP, low cholesterol	10.9	749	1.76 (1.58 to 1.95)	650	1.15 (1.04 to 1.27)	29.9 (0.3)
High SBP, high cholesterol	11.8	915	2.02 (1.83 to 2.23)	648	1.08 (0.97 to 1.19)	29.1 (0.3)
Smokers						
Low SBP, low cholesterol	13.5	654	1.48 (1.33 to 1.65)	1086	1.86 (1.71 to 2.03)	28.1 (0.2)
Low SBP, high cholesterol	13.5	841	1.96 (1.77 to 2.16)	954	1.68 (1.53 to 1.83)	27.3 (0.3)
High SBP, low cholesterol	7.9	552	2.42 (2.16 to 2.71)	625	2.14 (1.93 to 2.37)	24.3 (0.4)
High SBP, high cholesterol	8.3	691	3.09 (2.78 to 3.44)	544	1.91 (1.72 to 2.12)	23.7 (0.4)

SBP=systolic blood pressure.

*"Low" blood pressure is <140 mm Hg, "low" cholesterol is baseline cholesterol <5.0 mmol/l.

†Hazard ratios adjusted for age at risk and calendar period.

Aspettativa di vita aumentata fino a circa 15 anni con un buon controllo di tutti i principali fattori di rischio CV

Table 5 | Hazard ratios for vascular and non-vascular mortality and life expectancy by all cause mortality risk scores

Risk score categories	Prevalence at baseline (%)	Vascular deaths		Non-vascular deaths		Life expectancy at age 50 (SE)
		Deaths	HR* (95% CI)	Deaths	HR (95% CI)	
Risk score based on SBP, cholesterol, and smoking						
1 (lowest fifth)	20.0	812	1.0	1044	1.0	33.5 (0.2)
2	20.0	1023	1.28 (1.17 to 1.41)	1240	1.23 (1.13 to 1.33)	31.2 (0.2)
3	20.0	1173	1.61 (1.47 to 1.76)	1336	1.47 (1.35 to 1.59)	29.4 (0.2)
4	20.0	1292	1.91 (1.75 to 2.09)	1387	1.66 (1.53 to 1.80)	27.6 (0.2)
5 (highest fifth)	20.0	1583	2.74 (2.51 to 2.98)	1353	1.94 (1.78 to 2.10)	24.2 (0.2)
Risk score based on SBP, cholesterol, smoking, BMI, grade, glucose intolerance, and diabetes						
1 (lowest fifth)	20.0	782	1.0	977	1.0	34.0 (0.2)
2	20.0	1007	1.35 (1.23 to 1.49)	1223	1.34 (1.23 to 1.45)	31.3 (0.2)
3	20.0	1181	1.71 (1.56 to 1.87)	1260	1.50 (1.38 to 1.63)	29.8 (0.2)
4	20.0	1361	2.17 (1.98 to 2.37)	1390	1.86 (1.71 to 2.02)	26.9 (0.2)
5 (highest fifth)	20.0	1552	2.85 (2.60 to 3.11)	1510	2.41 (2.22 to 2.62)	23.6 (0.3)
Lowest 5%	5.0	154	1.0	228	1.0	35.4 (0.4)
Middle 90%	90.0	5276	2.18 (1.86 to 2.56)	5784	1.68 (1.47 to 1.92)	29.3 (0.1)
Highest 5%	5.0	453	4.65 (3.86 to 5.60)	348	2.70 (2.28 to 3.20)	20.2 (0.6)

SBP=systolic blood pressure, BMI=body mass index.

*Hazard ratios adjusted for age at risk and calendar period.

Delta di sopravvivenza scorporato per i singoli fattori di rischio CV

- ✓ **FUMO:** fino a 6 anni a favore di chi non ha mai fumato rispetto ai fumatori
- ✓ **IPERTENSIONE:** fino a 6 anni a favore dei normotesi
- ✓ **COLESTEROLO:** fino a 2 anni a favore degli ipocolesterolemici
- ✓ **DIABETE:** fino a 4 anni a favore dei non diabetici
- ✓ **QUALITA' di IMPIEGO:** fino a 6 anni a favore di lavoratori meno disagiati
- ✓ **STATO CIVILE:** fino a 2 anni a favore degli sposati

Healthy Living Is the Best Revenge

Findings From the European Prospective Investigation Into Cancer and Nutrition–Potsdam Study

Earl S. Ford, MD, MPH; Manuela M. Bergmann, PhD; Janine Kröger; Anja Schienkiewitz, PhD, MPH; Cornelia Weikert, MD, MPH; Heiner Boeing, PhD, MSPH

ARCHIVES OF
INTERNAL MEDICINE

23 153 soggetti tedeschi tra 35 e 63 anni

Fattori protettivi studiati:

- 1) non aver mai fumato
- 2) BMI < 30
- 3) 3,5 ore di attività fisica per settimana
- 4) dieta sana (molta frutta e verdura, pane integrale, poca carne)

Fattori protettivi è stato sommato per costituire un **indice** da 0 a 4

End Point: Diabete tipo II, Infarto miocardico, Ictus, Cancro
Follow-up: 7,8 anni

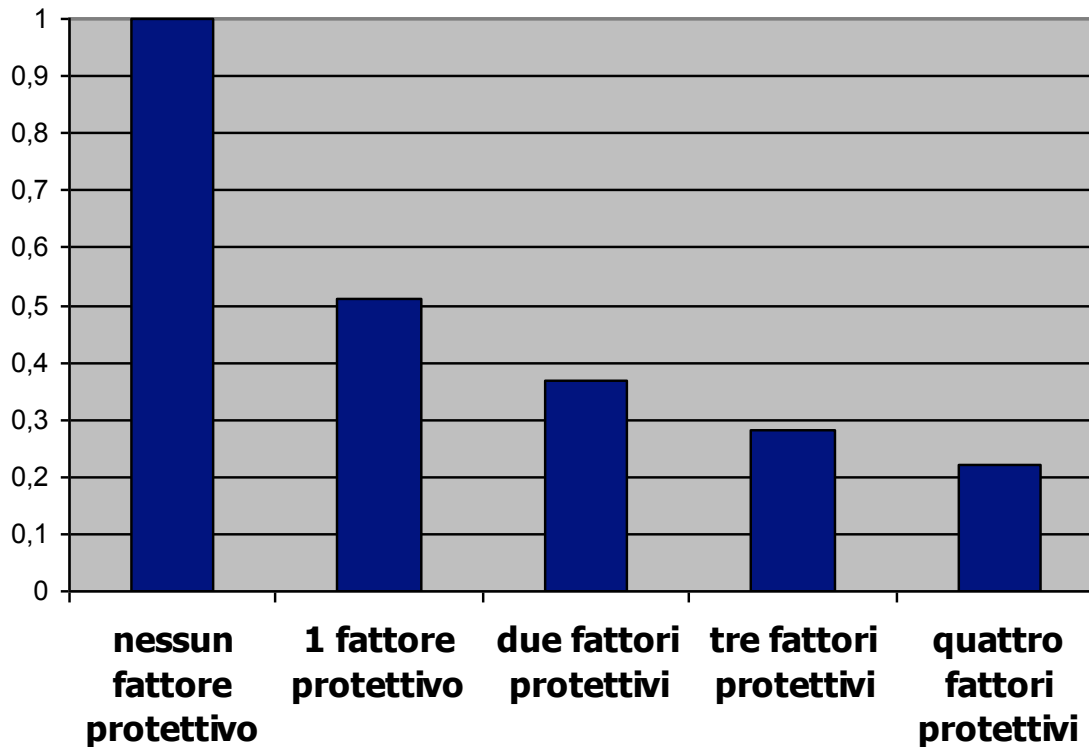
Risultati

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Rischio relativo aggiustato di evento
in base al numero di fattori protettivi



Fattori protettivi:

1) non aver mai fumato

2) BMI < 30

3) 3,5 ore/sett di attività fisica

4) dieta sana

Risultati

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N. di eventi e rischi relativi (e relativi IC95%) per gli eventi in esame (cancro, diabete, infarto, ictus) in base al numero di fattori protettivi

Table 1. Adjusted HRs for Incident Chronic Disease (Cancer, Diabetes, Myocardial Infarction, and Stroke) During Almost 8 Years of Follow-up Among 23 153 Participants Aged 35 to 65 Years From the European Prospective Investigation Into Cancer and Nutrition–Potsdam Study

Variable	No. of Healthy Lifestyle Factors				
	0	1	2	3	4
No. of participants	924	5491	8206	6432	2100
No. of events	209	640	667	394	96
PY of follow-up	6510	42 128	64 551	50 990	16 636
Unadjusted rate per 1000 PY	32.1	15.2	10.3	7.7	5.8
Adjusted HR (95% CI) ^a	1 [Reference]	0.51 (0.43-0.60)	0.37 (0.31-0.43)	0.28 (0.24-0.33)	0.22 (0.17-0.28)

Abbreviations: CI, confidence interval; HR, hazard ratio; PY, person-years.

^aStratified by age and adjusted for sex, educational status, and occupational status.

Ford, E. S. et al. Arch Intern Med 2009;169:1355-1362.

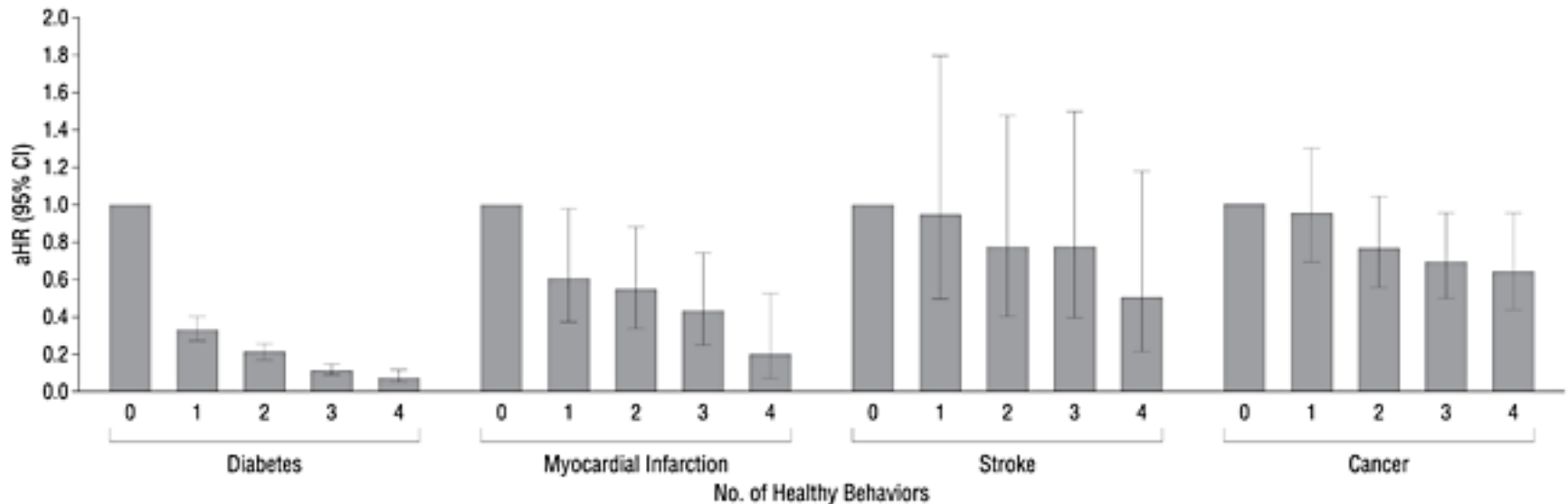
Risultati

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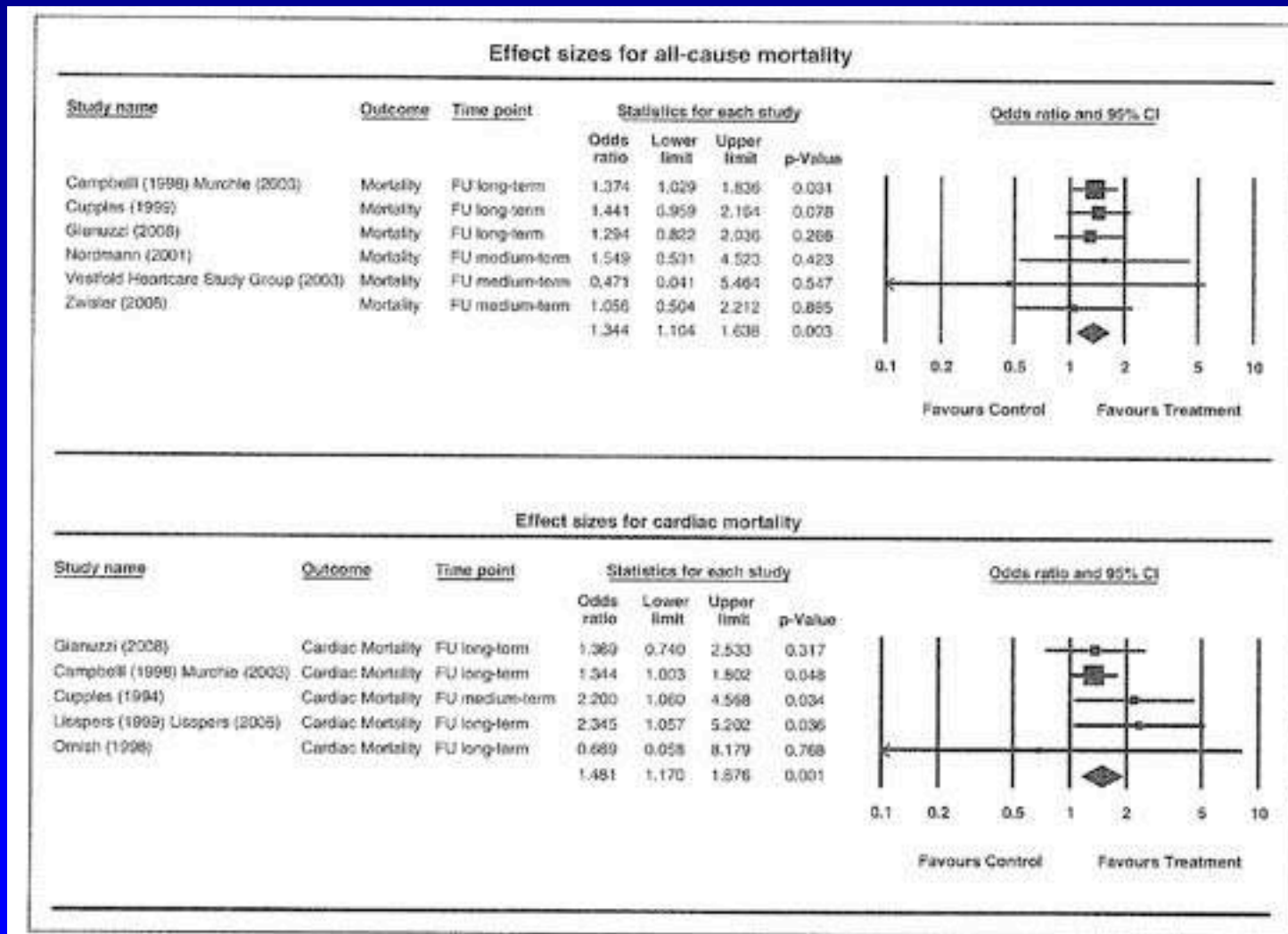
Rischi relativi corretti (e relativi IC95%) per gli eventi in esame (cancro, diabete, infarto, ictus) in base al numero di fattori protettivi



Ford, E. S. et al. Arch Intern Med 2009;169:1355-1362.

Lifestyle modification programmes for patients with coronary heart disease: a systematic review and meta-analysis of randomized controlled trials

Janssen V, Eur J Prev Cardiol 2012



Lifestyle modification programmes for patients with coronary heart disease: a systematic review and meta-analysis of randomized controlled trials

Janssen V, Eur J Prev Cardiol 2012

- 23 trials randomizzati, 1999-2009, > 11.000 pazienti
- Valutazione efficacia programmi di modifica dello stile di vita
- Riduzione significativa di morte (cardiaca e tutte le cause), riospedalizzazione, reinfarto
- Beneficio aggiuntivo a quello della terapia medica convenzionale
- Adesione facilitata da tecniche di richiamo e automonitoraggio

Terapia non farmacologica in prevenzione secondaria (dopo infarto miocardico)

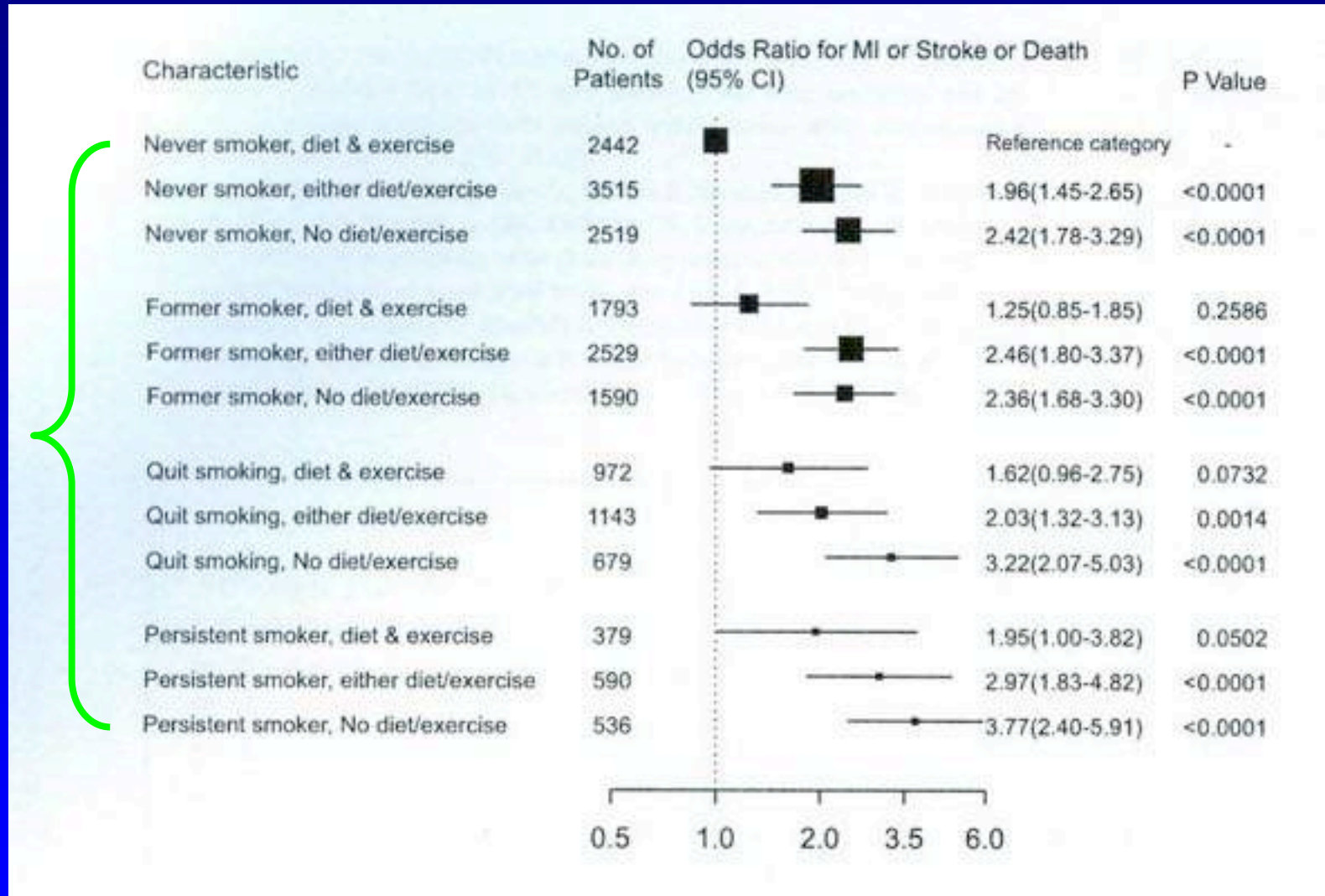
✓ Dieta (controllo del peso), esercizio fisico e assenza di fumo migliorano prognosi e sopravvivenza dopo infarto miocardico, indipendentemente e in aggiunta alla terapia medica ottimale

Epidemiology and Prevention

Association of Diet, Exercise, and Smoking Modification With Risk of Early Cardiovascular Events After Acute Coronary Syndromes

Clara K. Chow, MBBS, FRACP, PhD; Sanjit Jolly, MD, MSc, FRCPC;
Purnima Rao-Melacini, MSc; Keith A.A. Fox, BSc (Hons), MB, ChB, FRCP, FESC, FMedSci;
Sonia S. Anand, MD, PhD, FRCPC; Salim Yusuf, DPhil, FRCPC, FRSC

A parità di trattamento medico, dieta, esercizio e assenza di fumo, migliorano la sopravvivenza e la qualità della vita



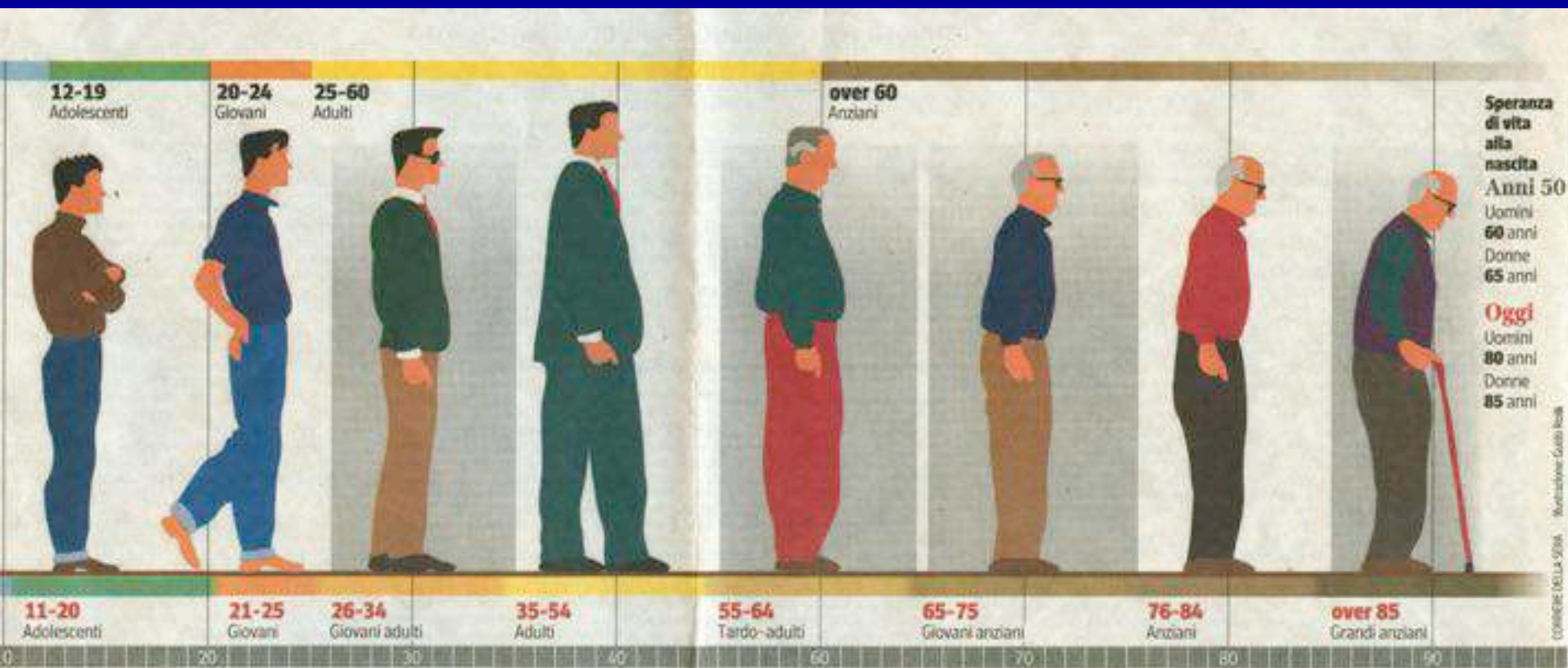
Pregi (senza Difetti) dei Non-farmaci

- ✓ Gli interventi non farmacologici su alimentazione, attività fisica e atteggiamento verso la vita sono completamente privi di effetti avversi ed hanno un grande valore terapeutico, additivo e preventivo rispetto ad ogni altro intervento farmacologico

Table 8 'Ten strategic steps' to enhance counselling on behavioural change²⁰³

1. Develop a therapeutic alliance.
2. Counsel all individuals at risk of or with manifest cardiovascular disease.
3. Assist the individuals to understand the relationship between their behaviour and health.
4. Help individuals assess the barriers to behaviour change.
5. Gain commitments from individuals to own their behaviour change.
6. Involve individuals in identifying and selecting the risk factors to change.
7. Use a combination of strategies including reinforcement of the individual's capacity for change.
8. Design a lifestyle modification plan.
9. Involve other healthcare staff whenever possible.
10. Monitor progress through follow-up contact.

Atleti un po' si nasce, ma soprattutto si diventa... ad ogni età



Correlazione inversa tra capacità di svolgere esercizio fisico e mortalità

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EXERCISE CAPACITY AND MORTALITY AMONG MEN REFERRED FOR EXERCISE TESTING

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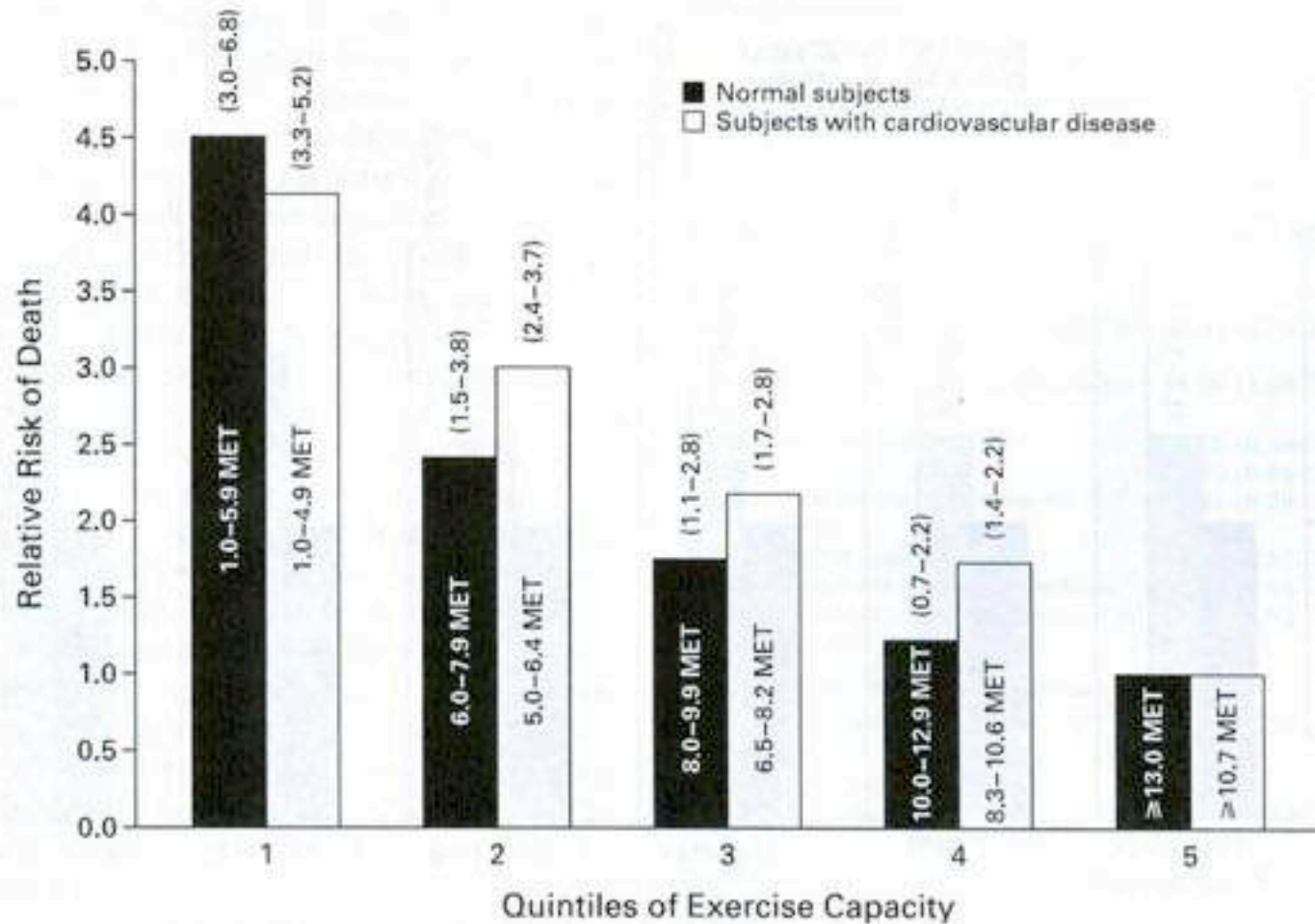


Figure 2. Age-Adjusted Relative Risks of Death from Any Cause According to Quintile of Exercise Capacity among Normal Subjects and Subjects with Cardiovascular Disease.

The subgroup of subjects with the highest exercise capacity (quintile 5) was used as the reference category. For each quintile, the range of values for exercise capacity represented appears within each bar; 95 percent confidence intervals for the relative risks appear above each bar.

EXERCISE CAPACITY AND MORTALITY

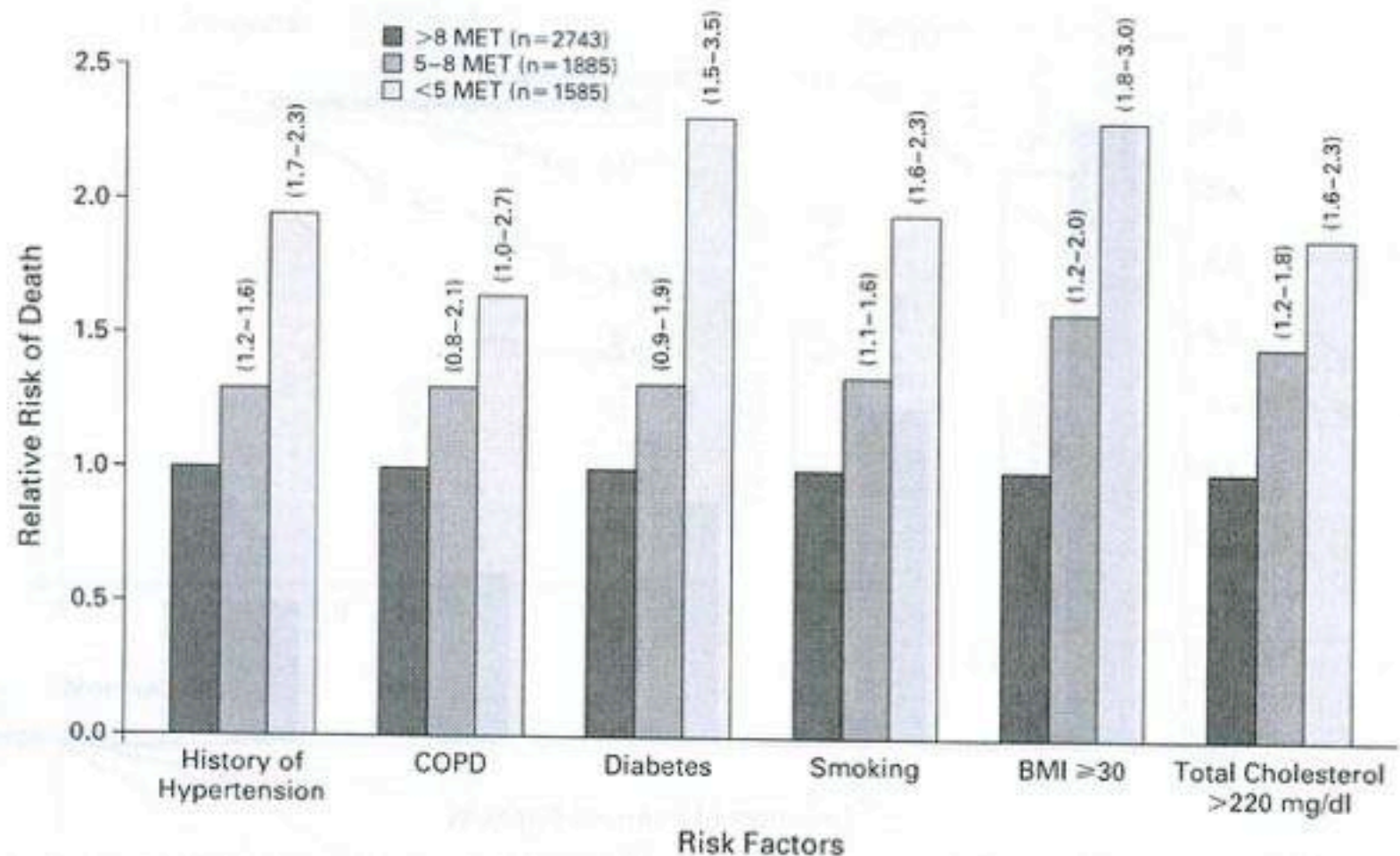
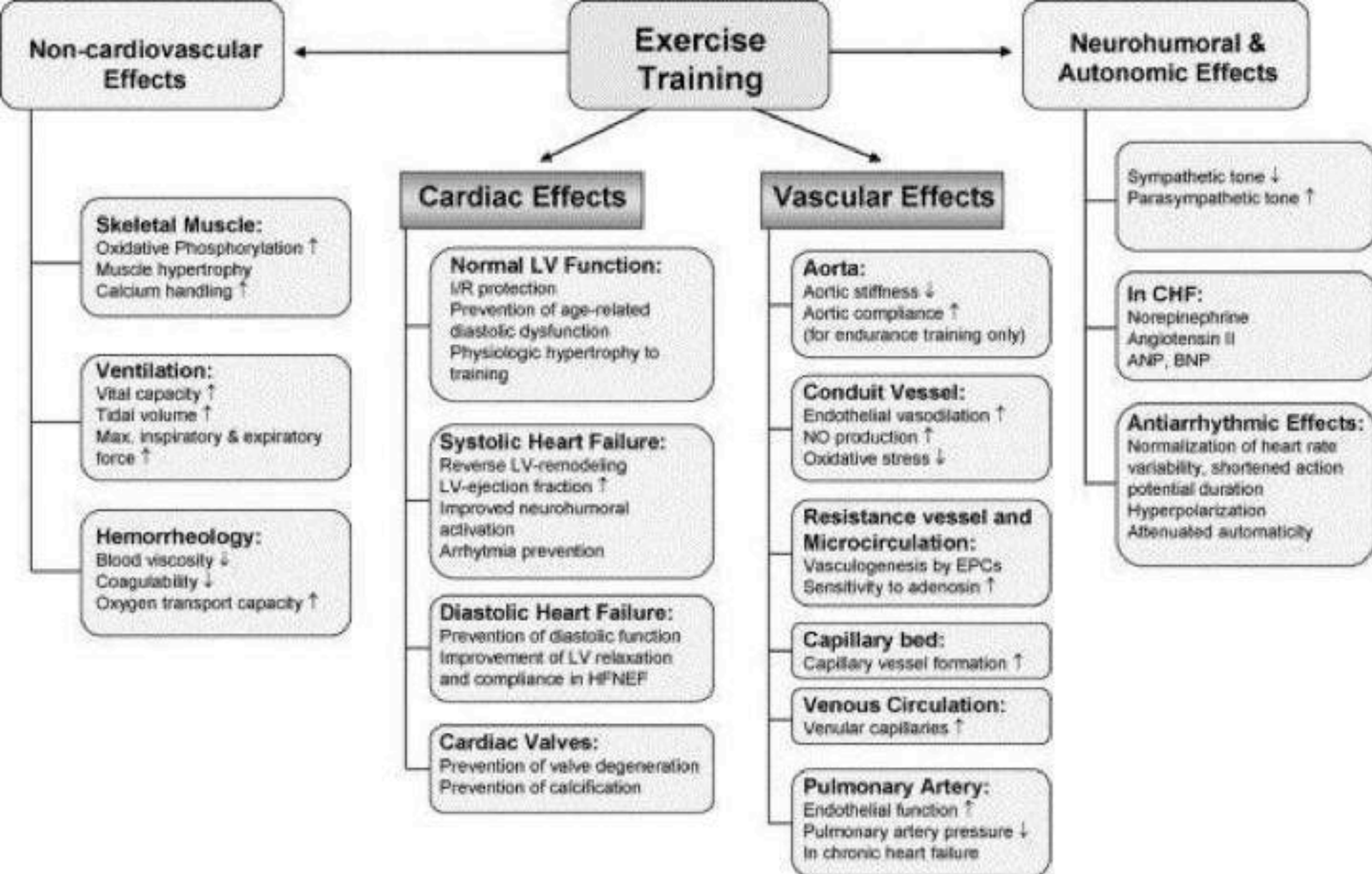


Figure 1. Relative Risks of Death from Any Cause among Subjects with Various Risk Factors Who Achieved an Exercise Capacity of Less Than 5 MET or 5 to 8 MET, as Compared with Subjects Whose Exercise Capacity Was More Than 8 MET. Numbers in parentheses are 95 percent confidence intervals for the relative risks. BMI denotes body-mass index, and COPD chronic obstructive pulmonary disease.



Cardiovascular Effects of Exercise Training: Molecular Mechanisms.

Gielen, Stephan; Schuler, Gerhard; Adams, Volker. *Circulation*. 122(12):1221-1238, September 21, 2010.

Outcomes: all cause mortality

Exercise-based: CHD

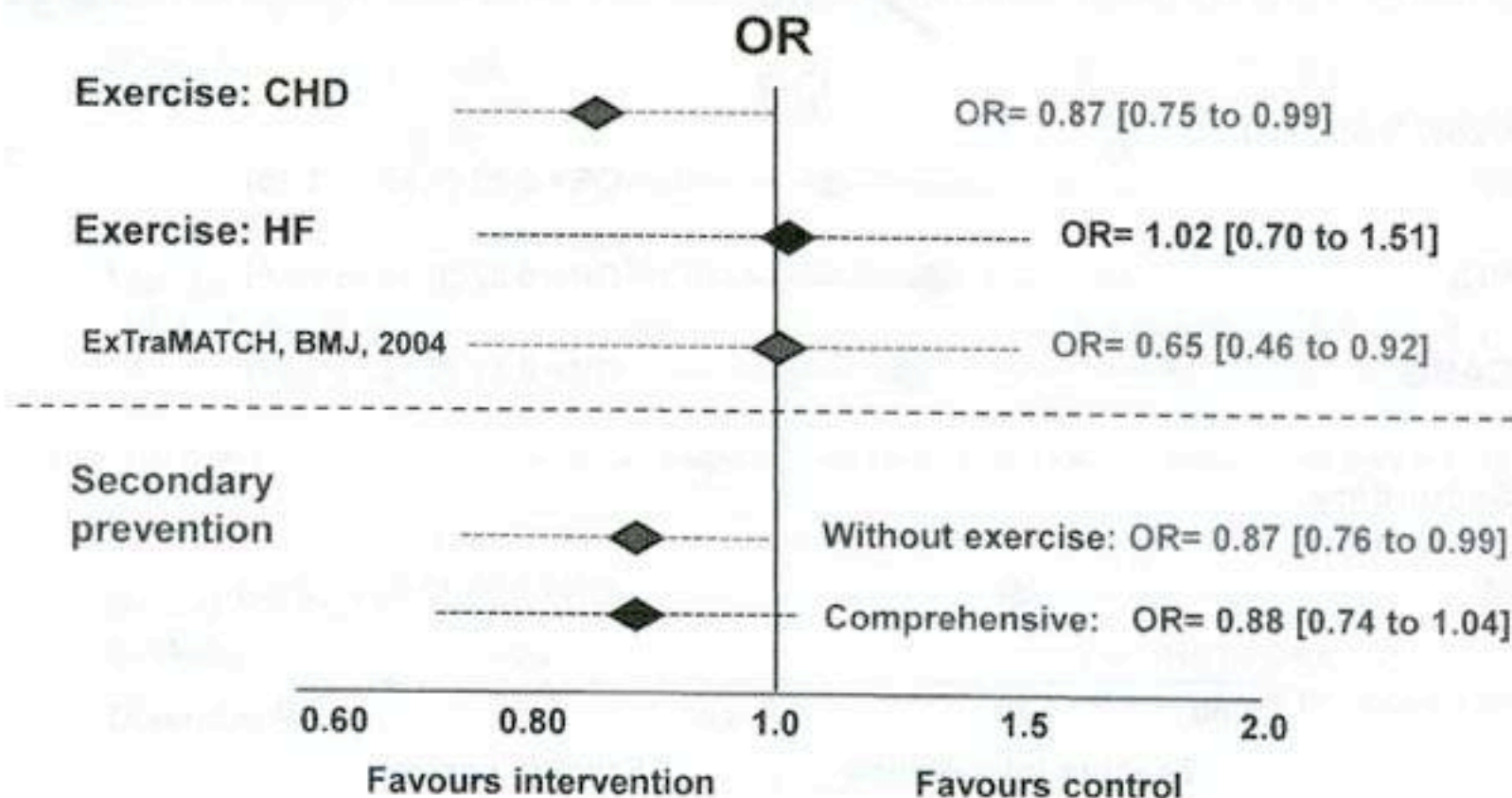
[Taylor & Cochrane R, 2010]

Exercise-based: HF

[Cochrane Review, 2010]

Secondary prevention

[Clark, 2005]



Outcomes: recurrent MI, PCI, CABG

Exercise-based: CHD
[Cochrane Review, 2010]

~~**Exercise-based: HF**~~
~~[Cochrane Review, 2004]~~

Secondary prevention
[Clark, 2005]

