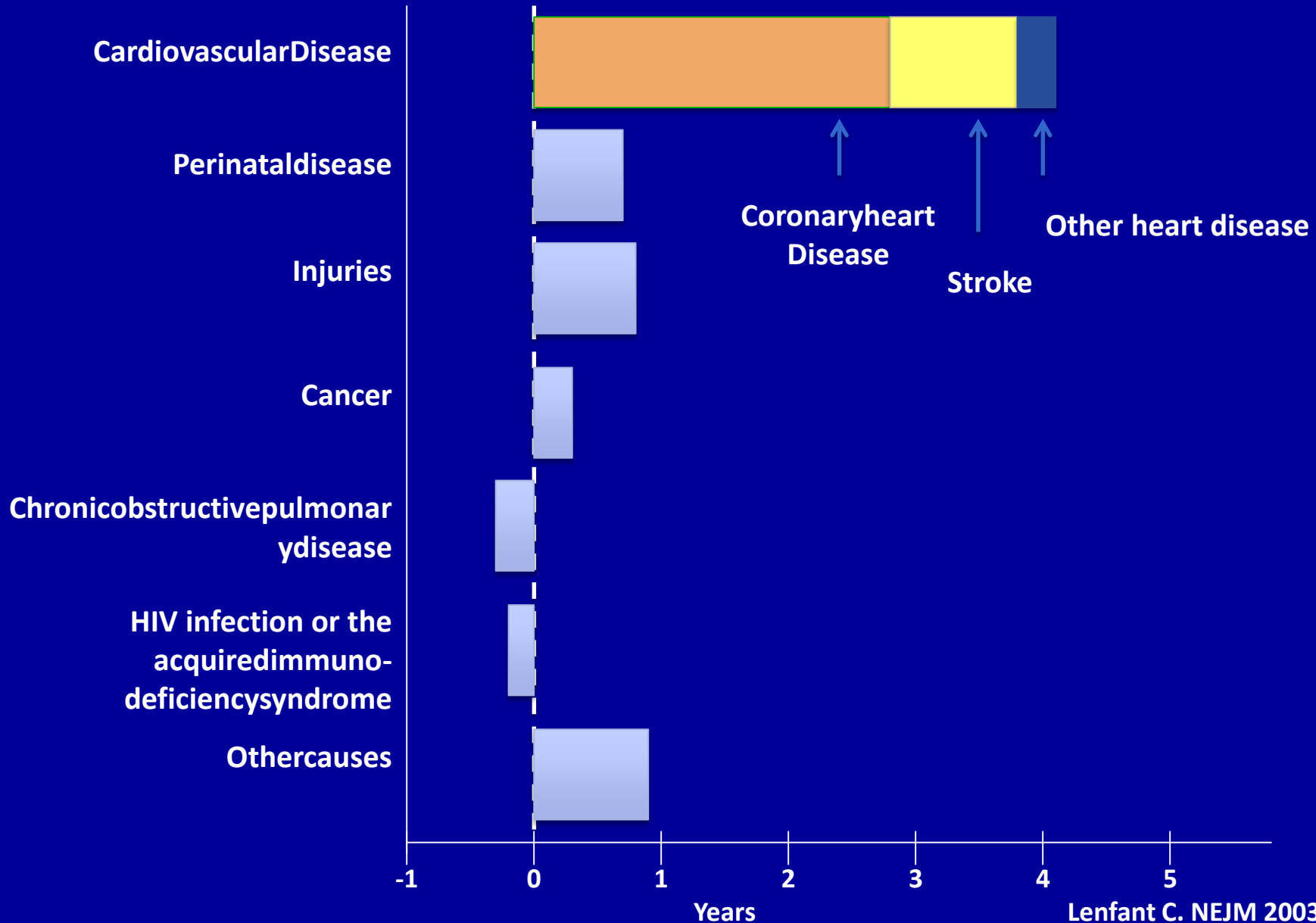


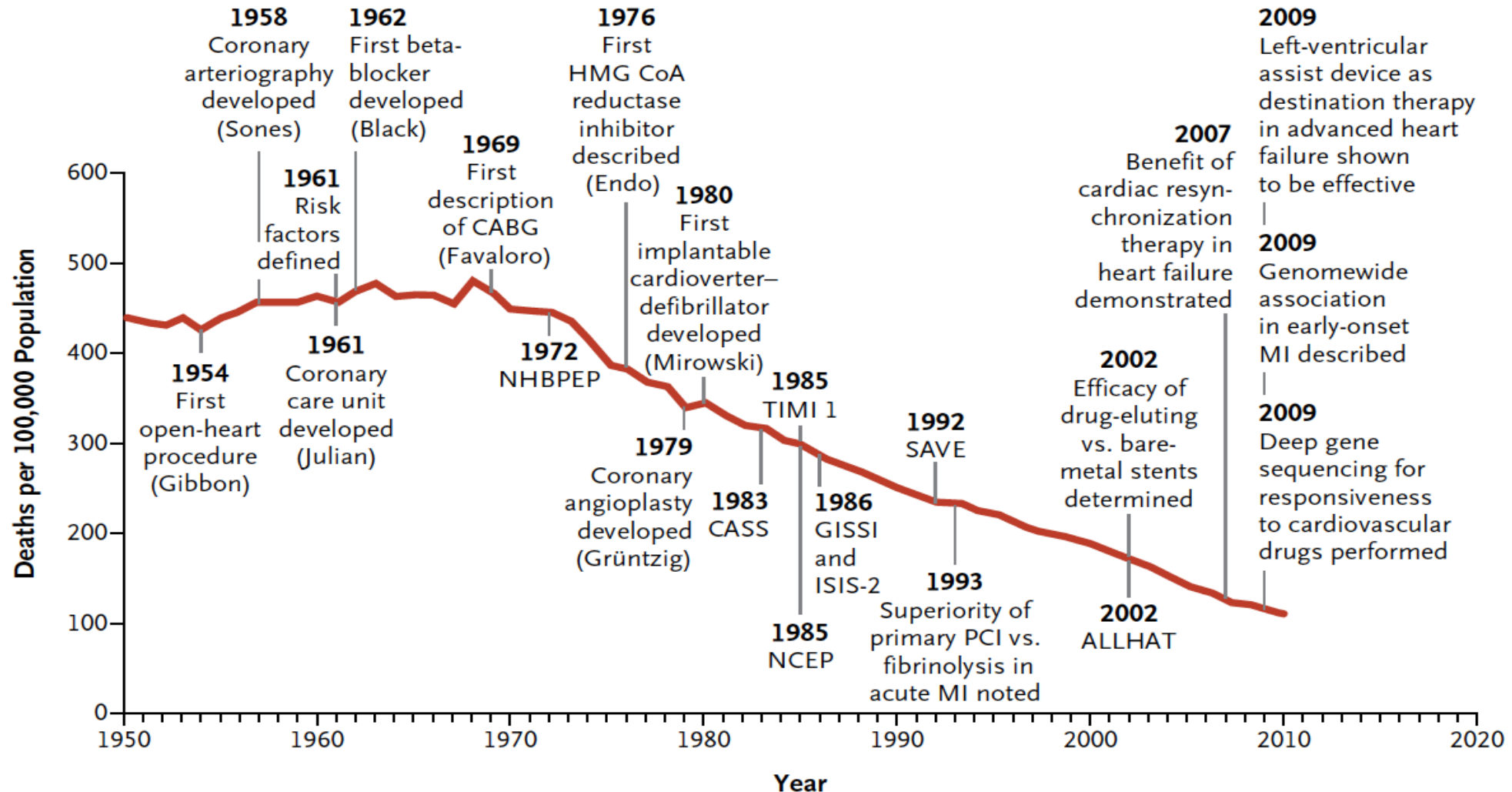


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Change in U.S. Life Expectancy between 1970 and 2000



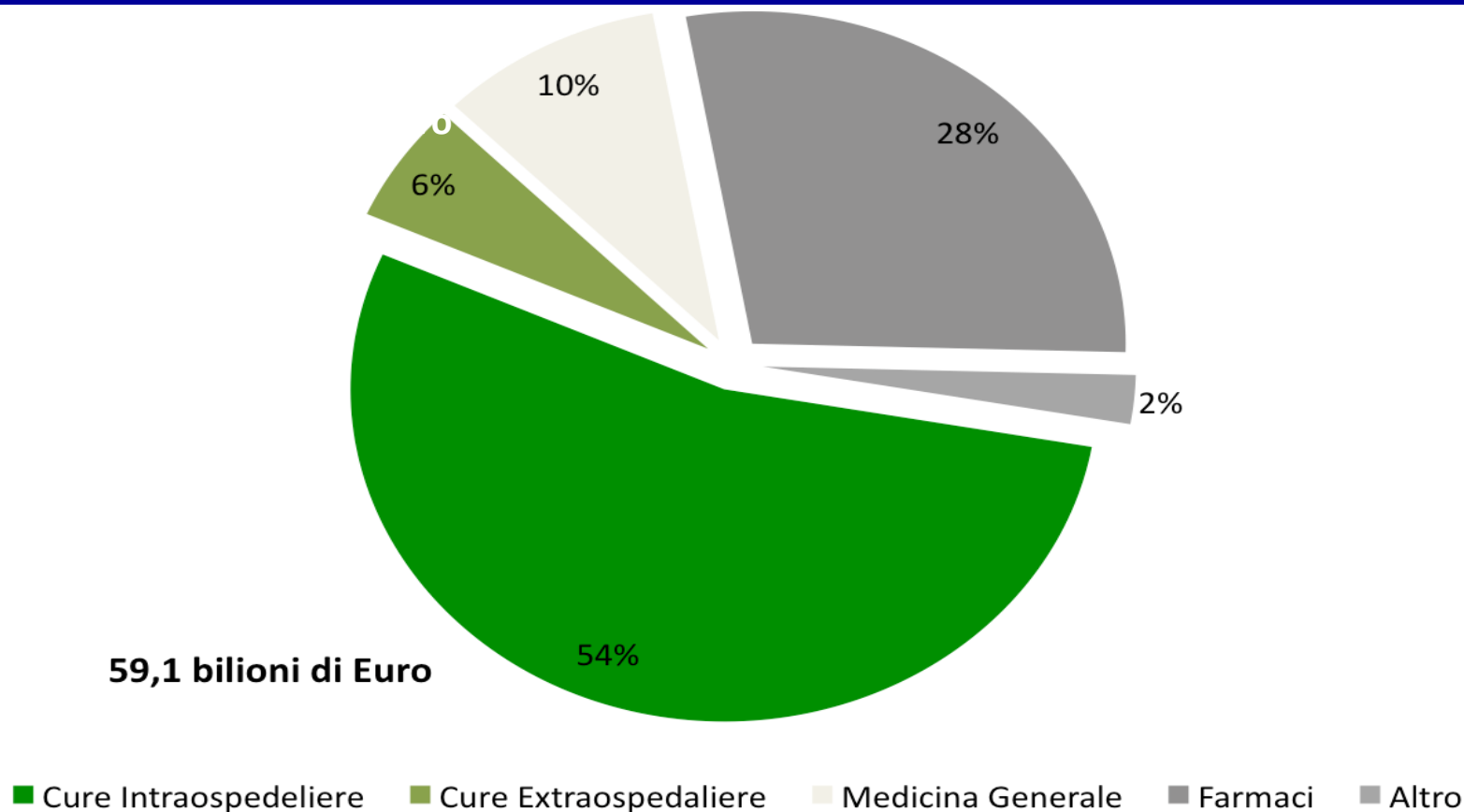
Decline in Deaths from Cardiovascular Disease in Relation to Scientific Advances.



Dimensione del problema

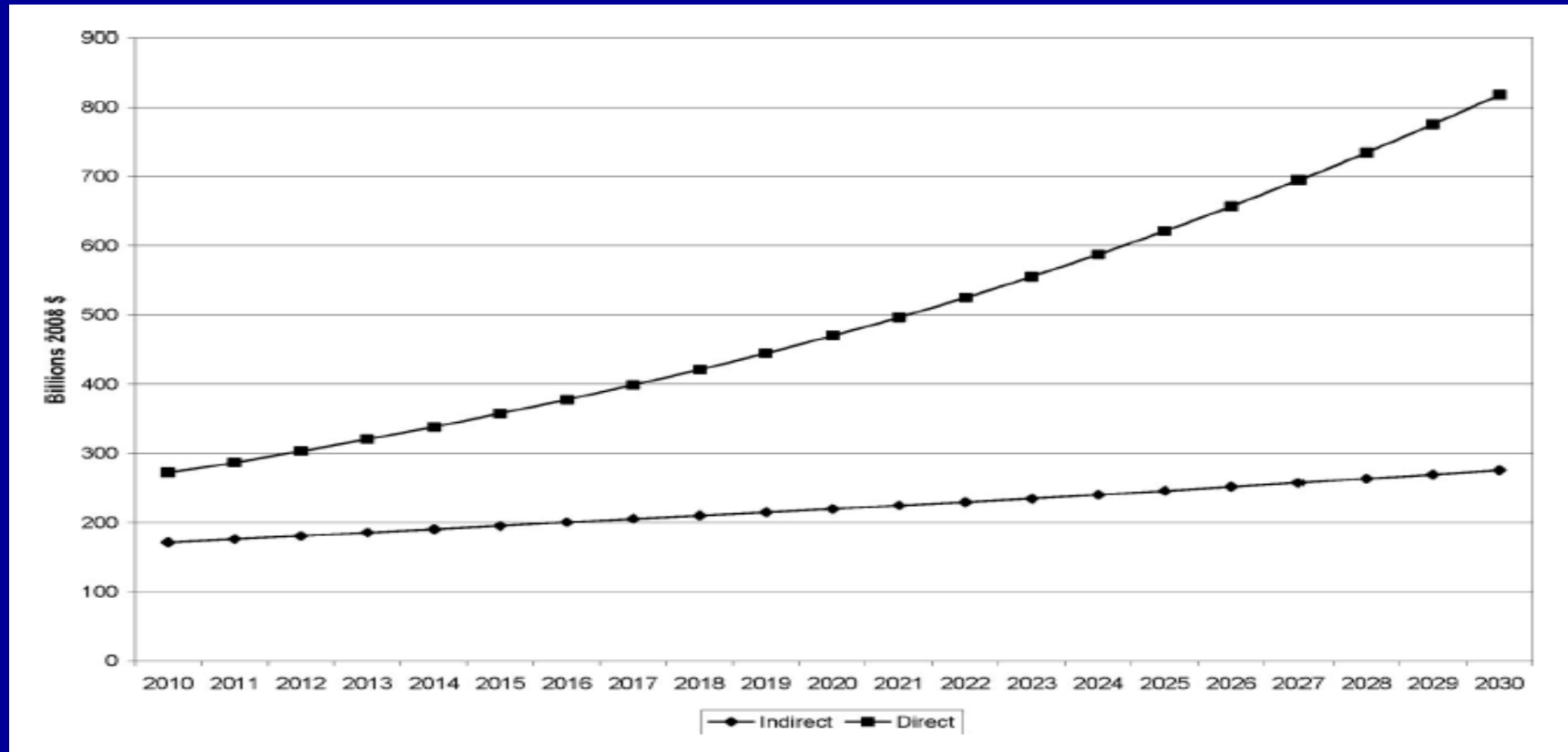
- Ogni anno le malattie cardiovascolari uccidono più di **4,3 milioni** di persone in Europa essendo causa del **48% di tutti i decessi** (54% per le donne, 43% per gli uomini).
- La Società europea di Cardiologia e la European Heart Network calcolano un costo per l'economia dell'Ue di oltre **196 miliardi di euro all'anno** per la cura delle patologie cardiovascolari, con una spesa sanitaria che varia dal 4% del Lussemburgo al 17% di Estonia, Lettonia e Polonia.

Costo Totale delle Cure Mediche in Europa

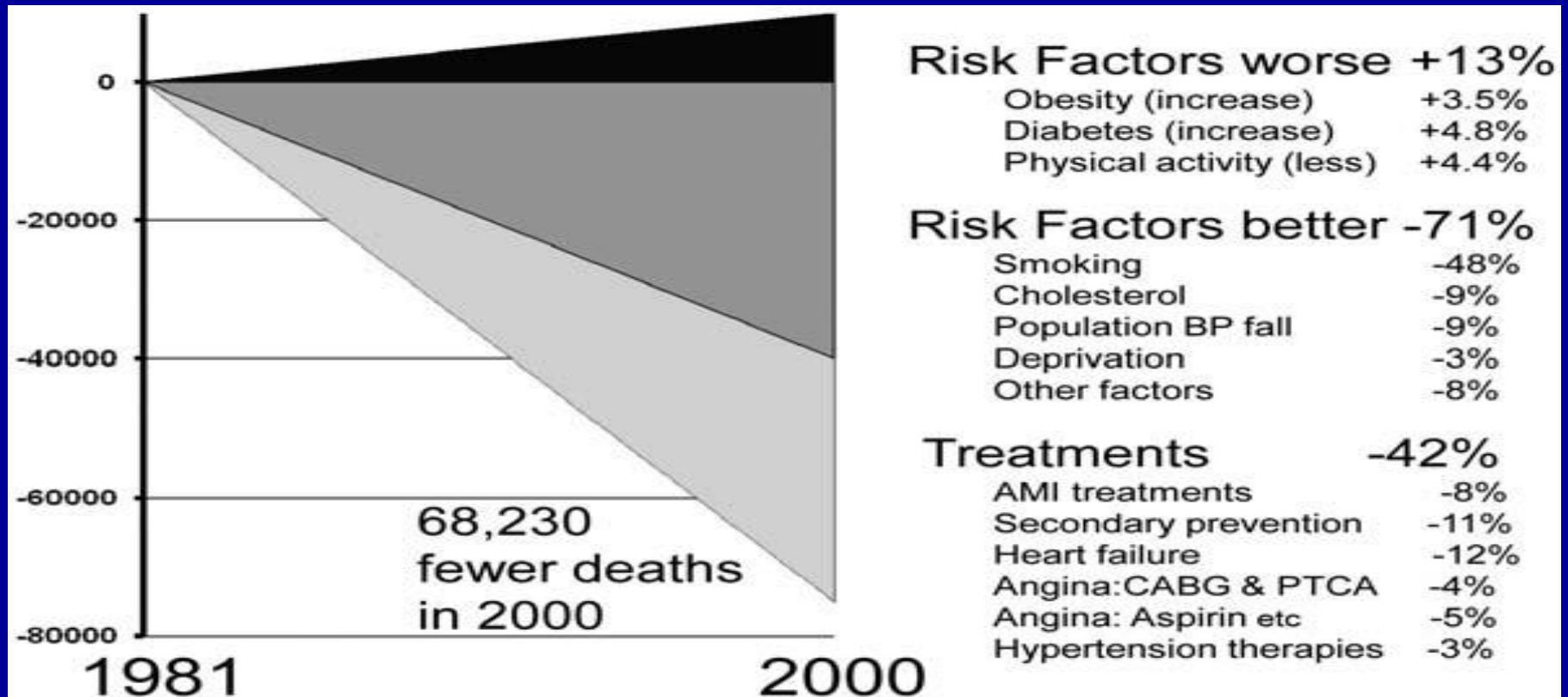


Bridging science and health policy in cardiovascular disease: focus on lipid management.
A Report from a Session held during the 7th International Symposium on Multiple Risk Factors in CV Diseases:
Prevention and Intervention – Health Policy, in Venice, Italy, on 25 October, 2008
Derived from Volpe M, et al. Atherosclerosis Supplements 2009;10:3–21

Proiezione dei costi (diretti ed indiretti) per le malattie CV dal 2010 al 2030 (in miliardi 2008\$)



Use of the IMPACT mortality model to explain the fall in CHD deaths in England & Wales 1981-2000

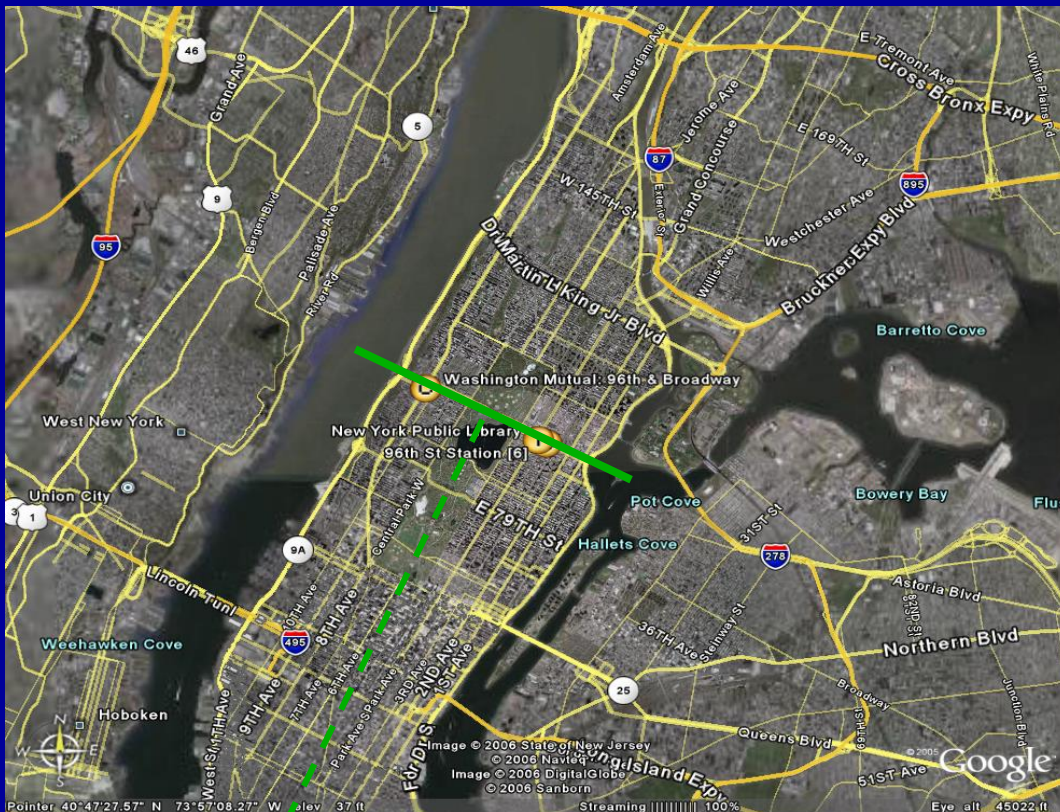


Rising Global Burden: the morbidity constellation



- Obesity
- High blood pressure
- Metabolic Syndrome
- Glucose Intolerance
- Insulin Resistance/Diabetes
- Atherogenic Dyslipidemia

Sindrome Metabolica: Aspetti Socio-Culturali



lungo la 96esima strada continua a passare una frontiera, invisibile ai più.

A sud, dove i bianchi sono l'84% e le persone che vivono sotto la soglia dell'indigenza il 6,2%, i soggetti obesi sono il 7% ed i diabetici l'1%.

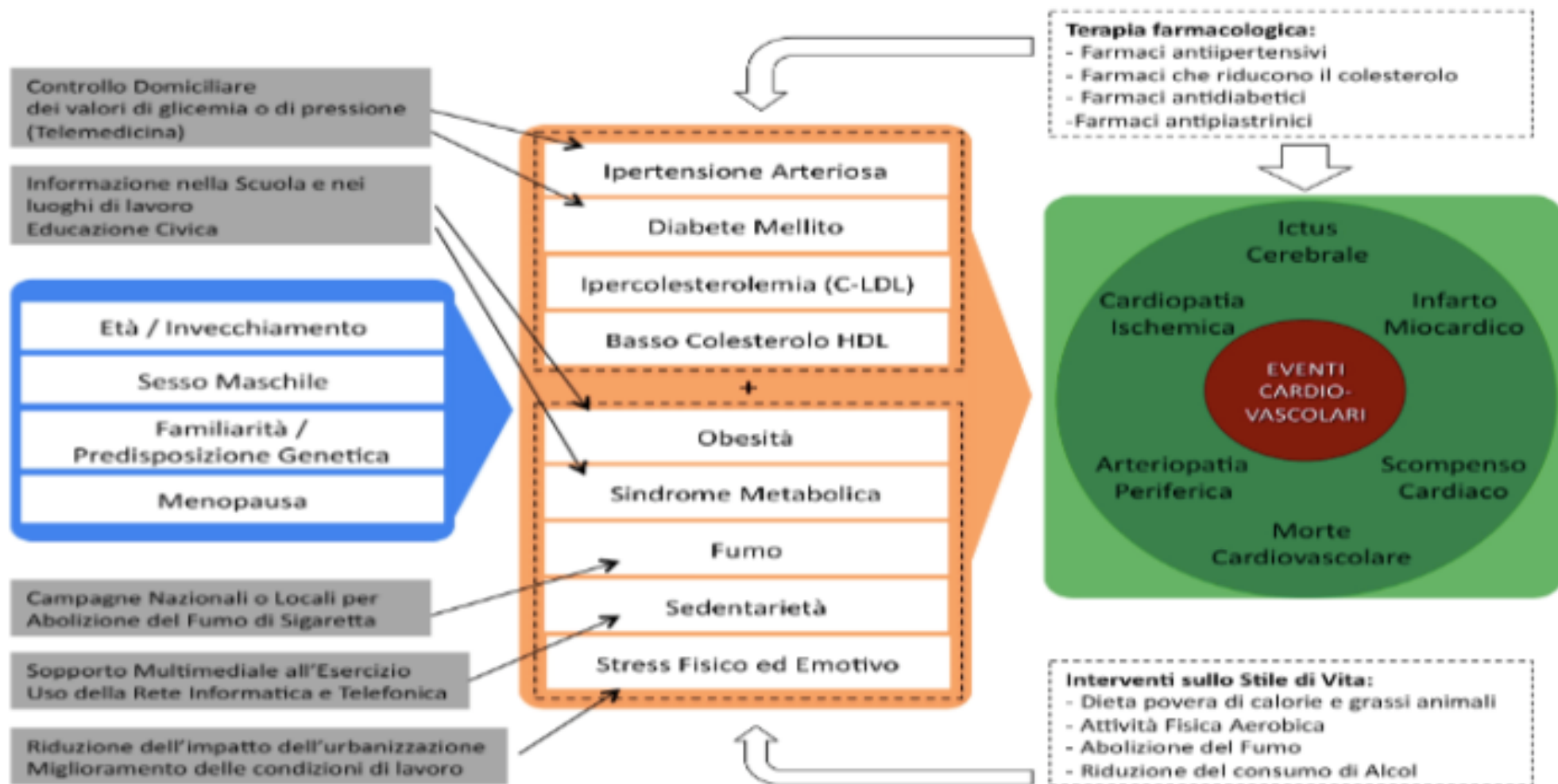
A nord, dove la popolazione è tuttora composta per l'88% da neri ed ispanici ed i poveri sono il 38%, i soggetti obesi sono il 31% ed i diabetici il 16%.

New York, 96esima strada:

L'INVISIBILE FRONTIERA DEL BENESSERE E DEL DIABETE

Gaggi M, Corriere della Sera, ven 20 Gennaio 2006

Potential Pharmacological and Non-pharmacological Interventions for CV Disease Management and Control



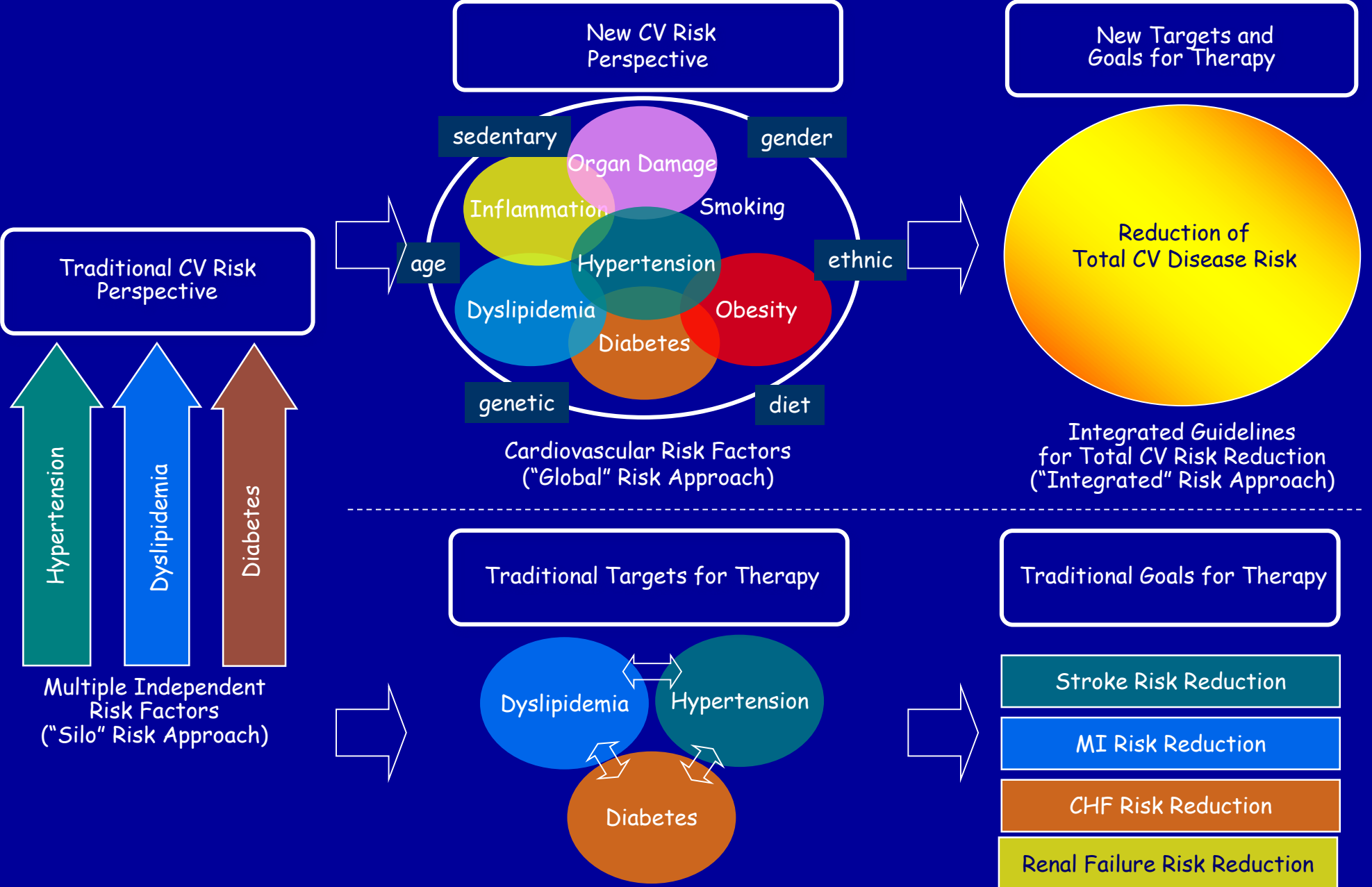
E' vera questa teoria ?
Comparazione tra peso corporeo e patologie nei PIMA, '800 versus terzo millennio

Two *Pima indians* – Arizona, end of XIX century



Two *Pima indians* – Arizona, 2010

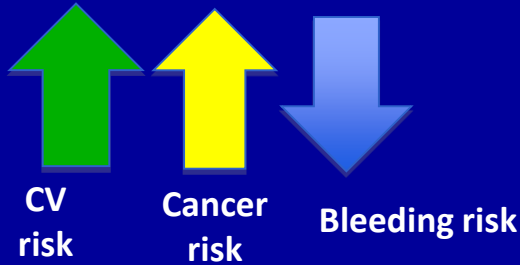
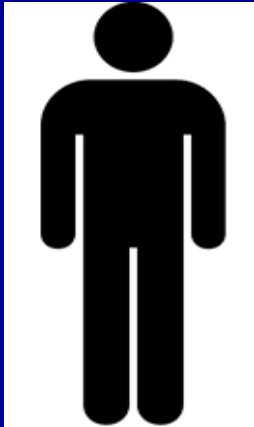




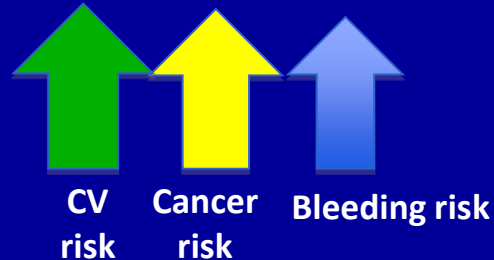
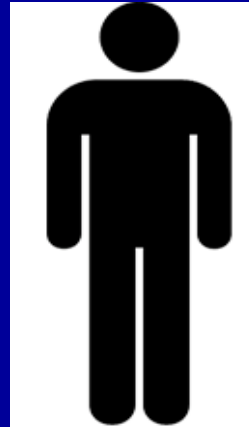
Life-style changes or Drugs for CVD prevention

The need for integrated population and clinical
interventions to achieve a more effective strategy

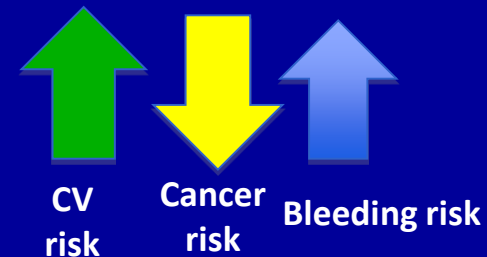
Prospettive future: la prevenzione preclinica integrata e globale



YES ASA



**Clinical
Judgement**



NO ASA

Documento di consenso e raccomandazioni per la prevenzione cardiovascolare in Italia 2018

Documento coordinato da *Massimo Volpe*,
Presidente Società Italiana per la Prevenzione Cardiovascolare (SIPREC)

in collaborazione con:

SIMI Società Italiana di Medicina Interna

SID Società Italiana di Diabetologia

SIIA Società Italiana dell'Ipertensione Arteriosa

SISA Società Italiana per lo Studio dell'Aterosclerosi

CNR Consiglio Nazionale delle Ricerche

FMSI Federazione Medico Sportiva Italiana

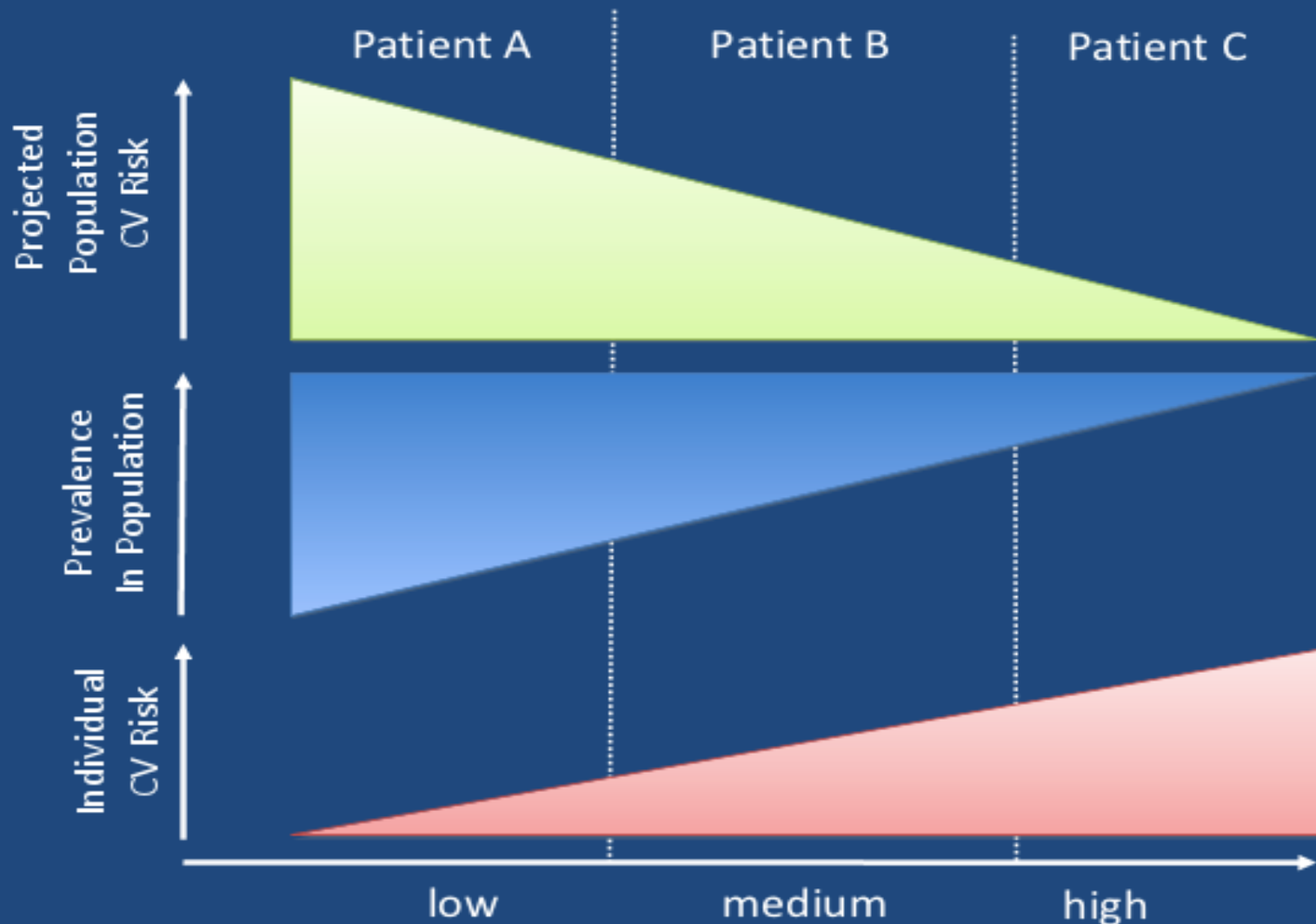
GICR- IACPR Gruppo Italiano di Cardiologia Riabilitativa e Preventiva
Italian Association for Cardiovascular Prevention, Rehabilitation and Epidemiology

SIF Società Italiana di Farmacologia

SItI Società Italiana di Igiene Medicina Preventiva e Sanità Pubblica

Burden of Disease and Societal Cost:

Do we need to treat patient A (low-risk)?



Effect of three preventive strategies on deaths from coronary heart disease over 10 years in Canadians aged 20-74

Strategy	No (%) of population treated	% of treated population by 10 year risk of death (% of risk group treated)				No of deaths avoided*	
		<0.1%	0.1-0.99%	1-10%	>10%	Over 10 years	Per 100 000 population
Population health (Rose)	12 300 000 (100)	55.1 (100.0)	20.2 (100.0)	20.4 (100.0)	4.4 (100.0)	5 160	42
High baseline risk	1 590 000 (12.9)	0.1 (0.0)	2.2 (1.4)	64.0 (40.5)	33.8 (100.0)	35 800	290
Single risk factor	1 370 000 (11.1)	4.0 (0.8)	27.4 (15.1)	54.0 (29.5)	14.7 (37.5)	15 500	125

*Assuming 100% community effectiveness for the single risk factor and high baseline risk strategies and a 2% total cholesterol reduction for the Rose strategy.

Cardiovascular Disease Prevention and Equal Opportunities for patients

- The primary prevention of cardiovascular disease (CVD) is dependent on the **effective reduction of the major risk factors** for CVD, particularly tobacco control and a healthier diet.
- The **high-risk approach** to prevent CVD typically involves **population screening**.
- Those **identified exceeding a risk threshold** are then given lifestyle advice and/or tablets to reduce blood cholesterol and blood pressure.
- Evidence suggests this **high-risk approach typically widens socioeconomic inequalities**. Such inequalities have been reported in screening, healthy diet advice, smoking cessation, statin and anti-hypertensive prescribing, and adherence.
- **The alternative approach is population-wide CVD prevention**. For example, legislating for smoke-free public spaces, banning dietary trans fats, or halving daily dietary salt intake. Such strategies are generally effective and cost-saving; there is also increasing evidence that **they can reduce health inequalities**.
- We conclude that screening and treating high-risk individuals represents a relatively ineffective CVD prevention approach that typically widens social inequalities.

Paradigm shift in CV risk estimation

PAST → Relative Risk

Single Risk-based approach

PRESENT → Absolute Risk

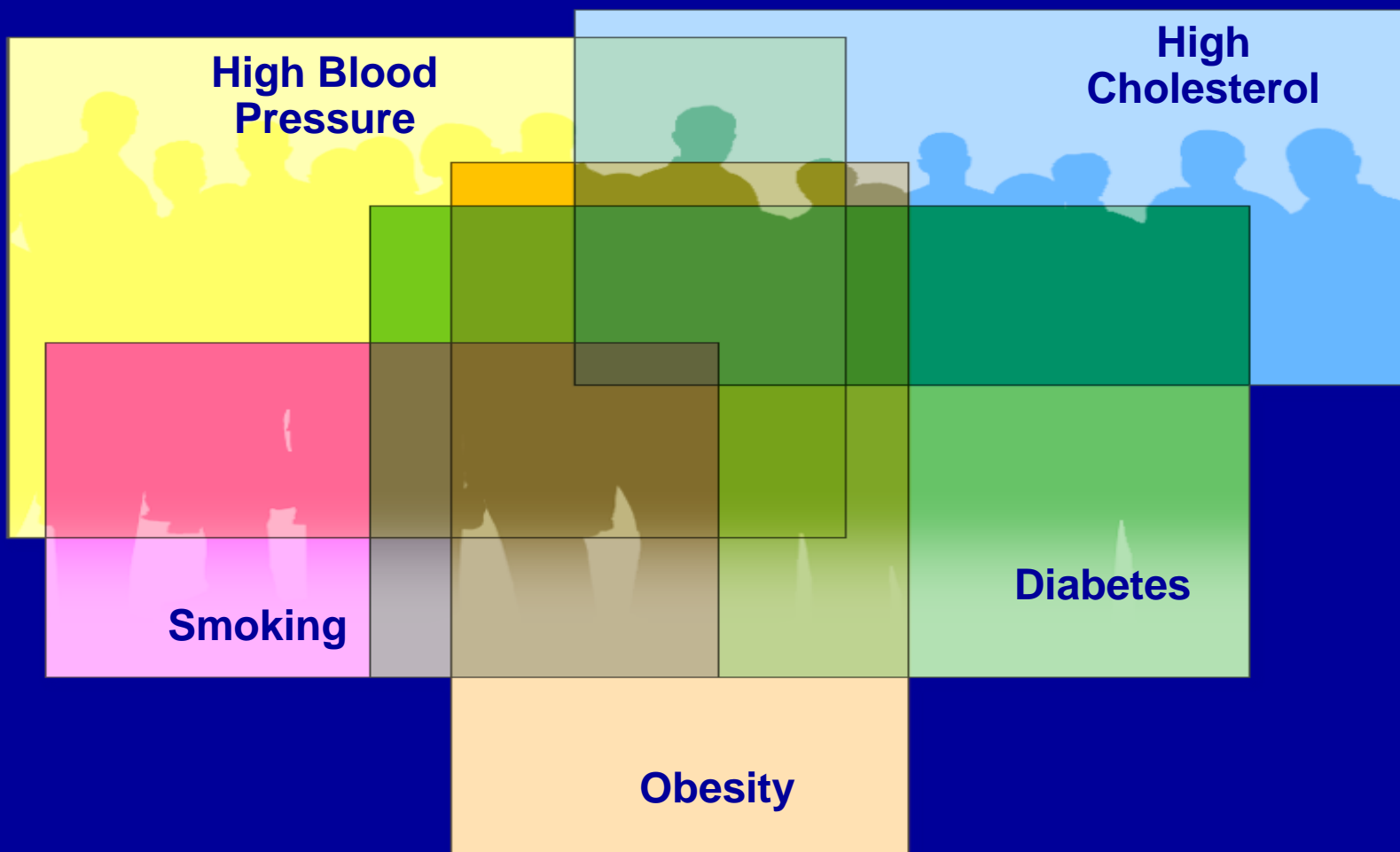
Multifactorial Risk approach

10 yrs CHD risk estimation

FUTURE → Individual lifetime risk
estimation

Risk composition evaluation
(genetic profile?)

Cardiovascular Disease Risk Factors Overlap



Diagnostic and Interventional Procedures in Italy (1/3)

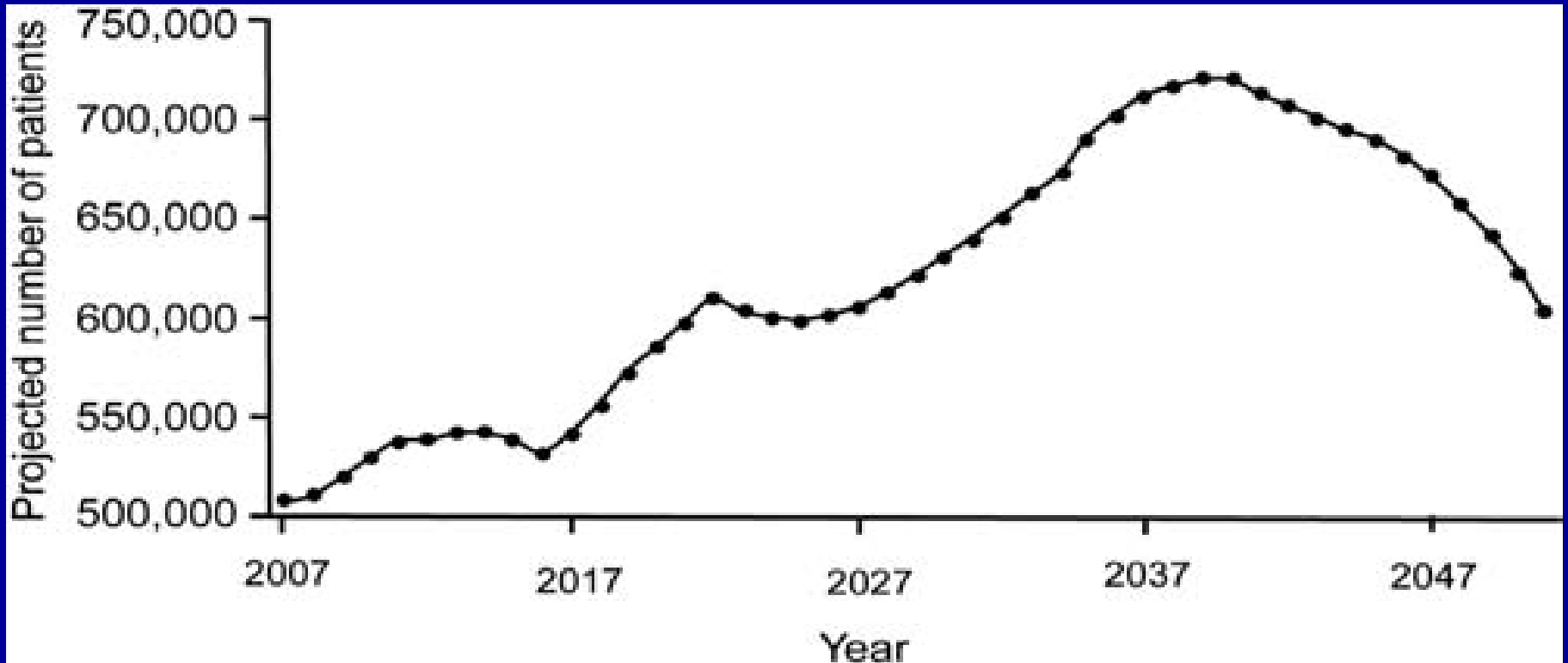


Diagnostic and Interventional Procedures in Italy (2/3)



Projected number of patients at risk of hospitalisation for CVD
due to high levels of cholesterol.

This number is forecasted to increase by more than 50% over the next 30 years.
Calculation based on RGS and Ministry of Health data.



Call-To-Action: Suggested Interventions (1/3)

1. To sustain and support **health policies** designed to promote or improve prevention of CV diseases in Italy.
2. To support and implement initiatives to quit smoking.
3. To identify **training and educational strategies** aimed at preventing CV diseases.
4. To increase **awareness** of the importance of medical management of total (or global) CV risk.
5. To understand and promote the concept that **life-style approach** in 2014 must **overcome the traditional "fences"** and should include **communication and new technologies (e.g. mobile phone, television, network)**.

Call-To-Action:

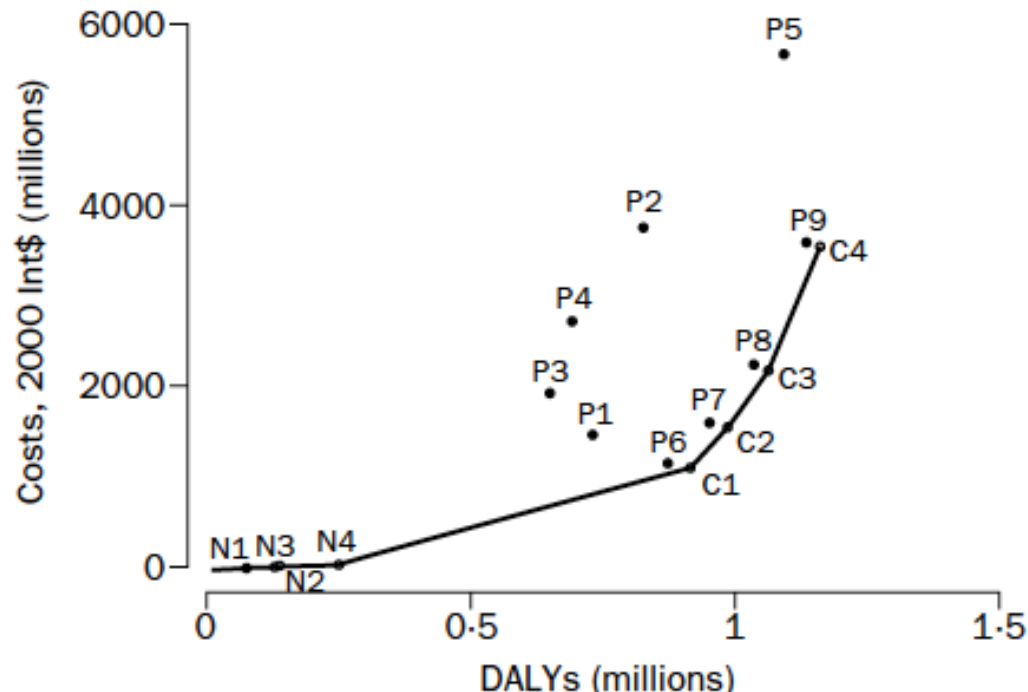
Suggested Interventions (3/3)

11. Provide cultural and scientific support to **multidisciplinary professional activities of all health professionals** involved in preventing CV diseases.
12. Identify and support initiatives by industries, or public and private associations, which may have impact on CV disease prevention.
13. **Develop documents** for CV prevention.
14. **Harmonize initiatives and sanitary policies** in terms of CV prevention in association with the EU.
15. **Identify annual or periodic objectives**, clearly specified, realistic and achievable, using criteria of periodic verification of the attained results.

Call-To-Action: Suggested Interventions (2/3)

6. Assess the **global (or total) cardiovascular risk** and projecting the estimate of CV risk over **lifetime**. Missing this exercise will unavoidably reduce the significance of risk charts or calculators.
Use detection of potential indicators of high CV risk (family history, high blood pressure, cholesterol, blood glucose or other modifiable risk factors) as a starting point to perform the total CV risk stratification.
6. Discuss the importance of cardiovascular risk assessment and prevention of CV benefits with patients (**physician /patient communication or alliance**).
7. Start diagnostic and therapeutic **interventions early**.
8. Promote the use of **recommendations for CV prevention**, which should be simple, integrated and shared by the various scientific societies.
9. Promote the role of **General Practitioners (GPs)**.

Cost effectiveness ratio is improved with the absolute risk approach



Intervention	
Non-personal interventions	
N1	Salt reduction through voluntary agreements with industry
N2	Population-wide reduction in salt intake legislation
N3	Health education through mass media
N4	Combined intervention of N2 and N3
Personal interventions	
P1 and P2	Individual-based hypertension treatment and education
P3 and P4	Individual treatment for high cholesterol concentrations and education
P5	Individual treatment and health education for SBP and cholesterol concentration
P6 to P9	Absolute risk approach