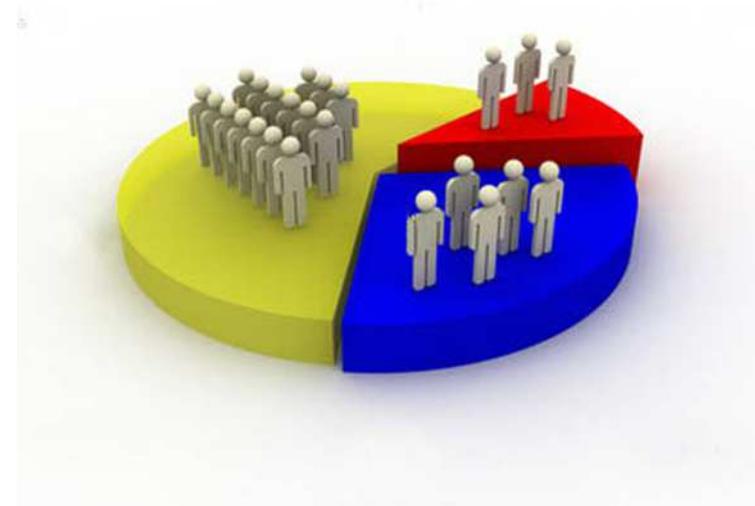


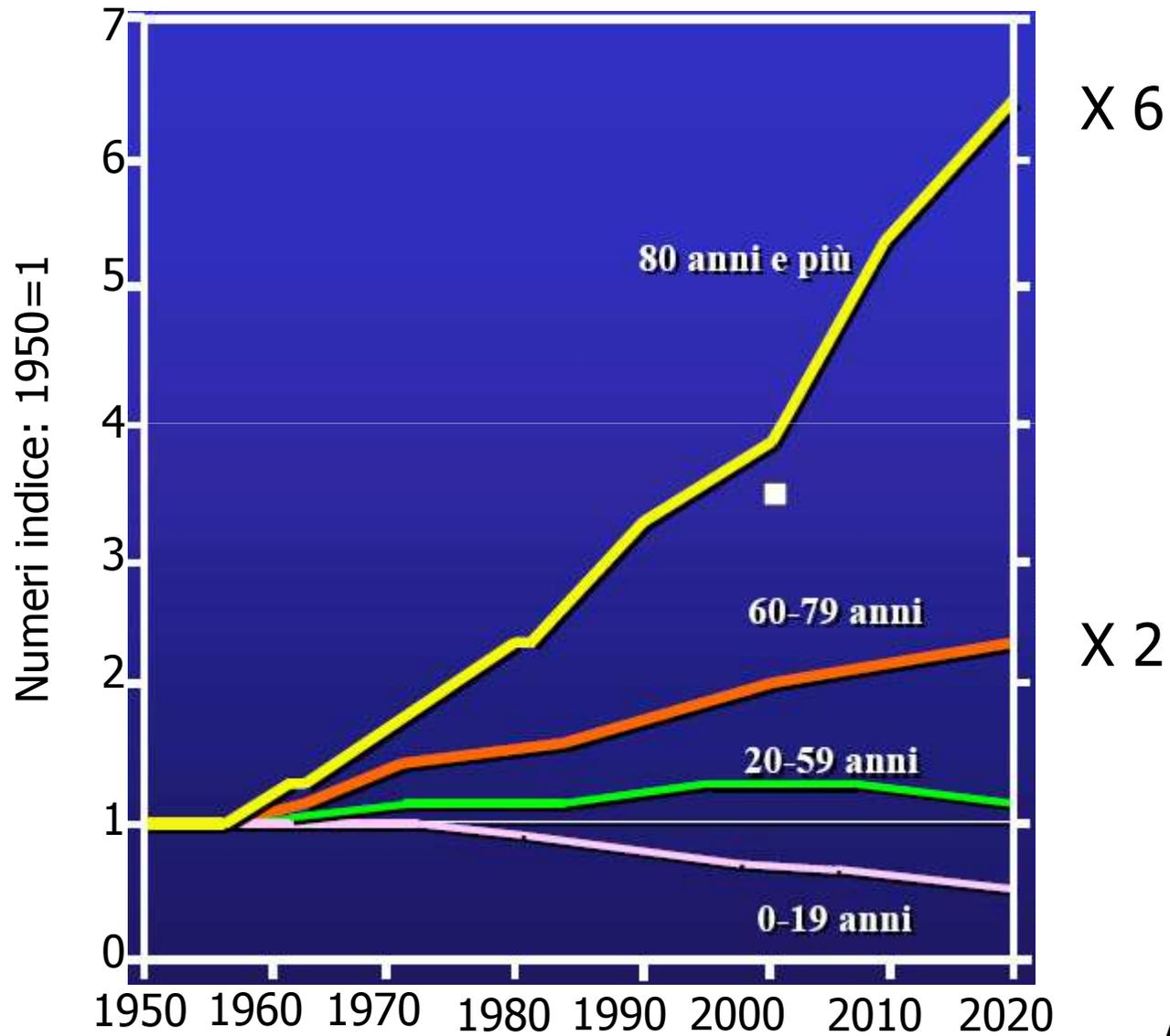


Demografia dell'Invecchiamento

Prof. Giovanni Zuliani



Evoluzione della popolazione italiana per classi di età dal 1950 al 2020



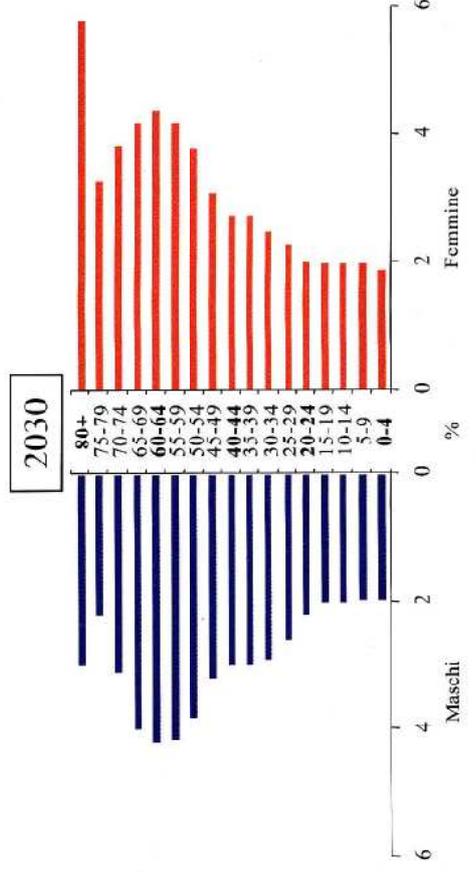
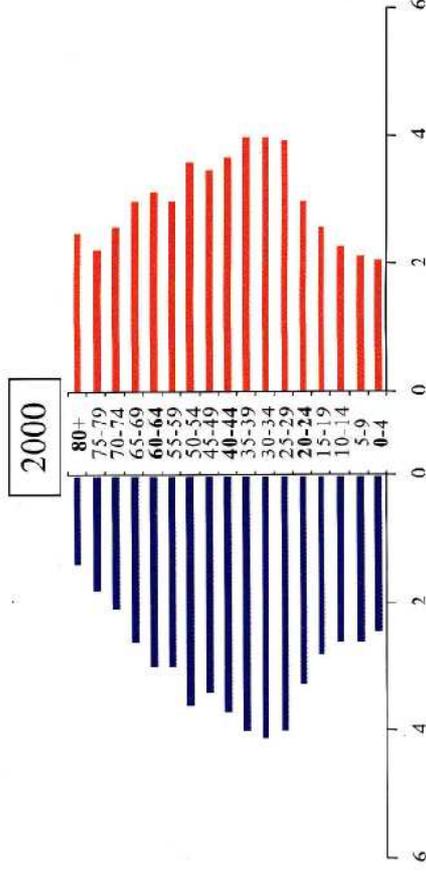
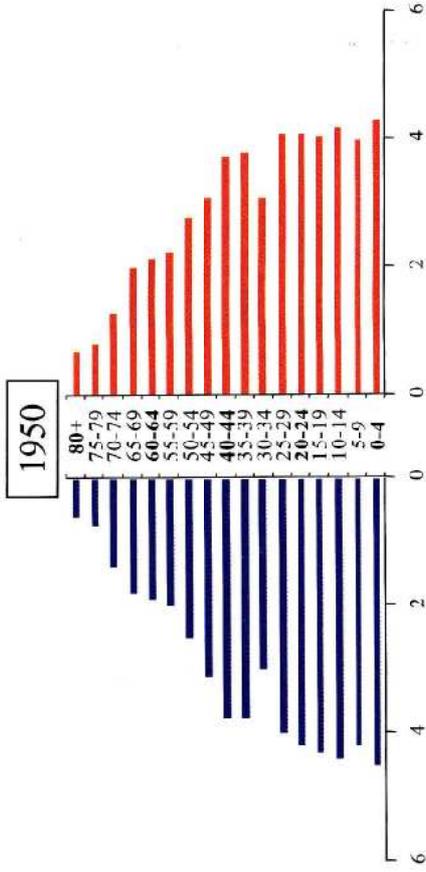
Lori et al, 1995, mod

Popolazione Italiana 1990-2020 (in Milioni)

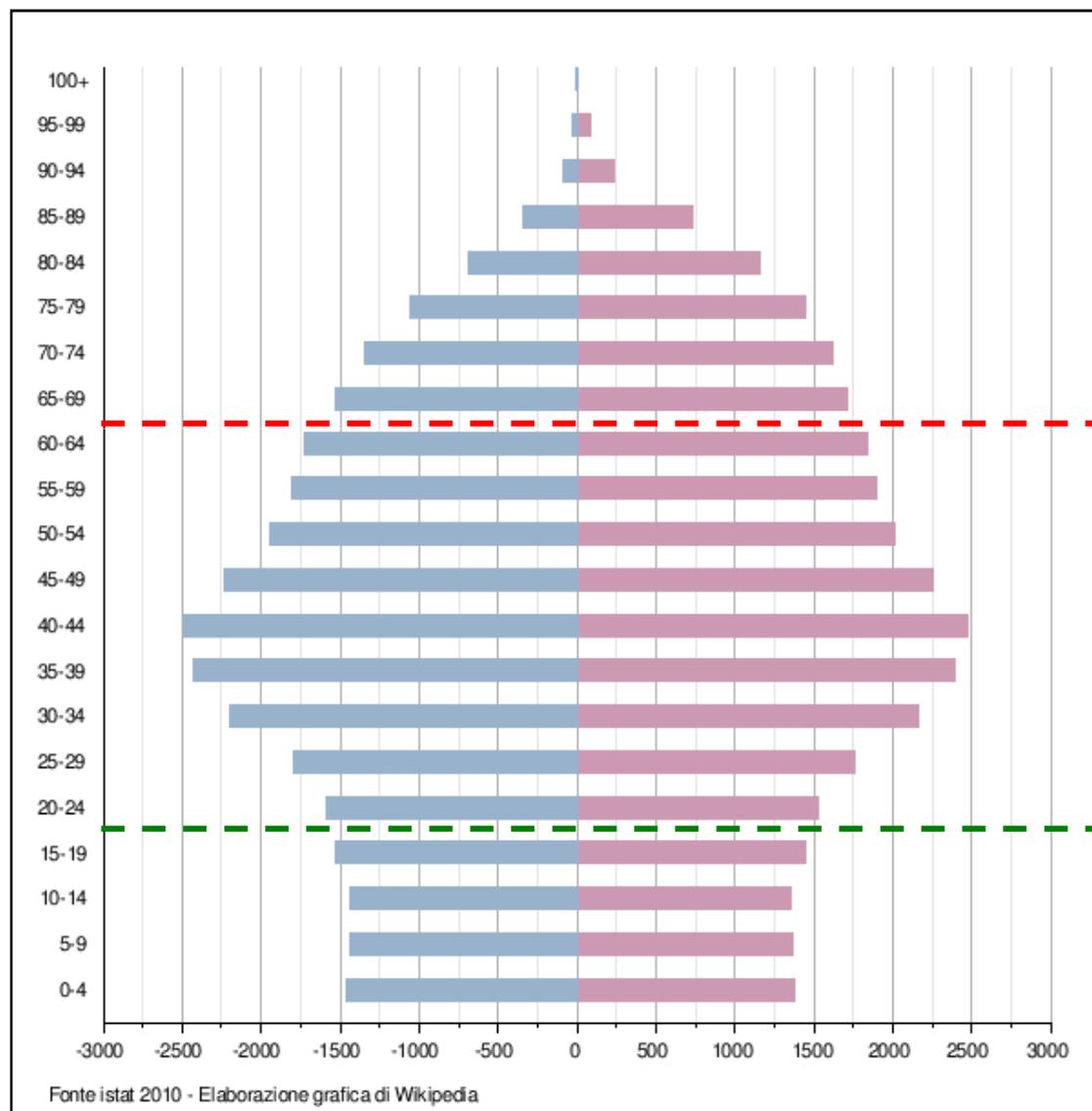
	≥ 65	%	≥ 80	% tra ≥65
1950	3.9	8.3	0.5	12.8
2000	9.9	17.1	2.0	20.2
2010	11.1	19.5	2.7	24.5
2020	12.0	22.3	3.2	26.7

Popolazione USA 1900-2050 (in Milioni)

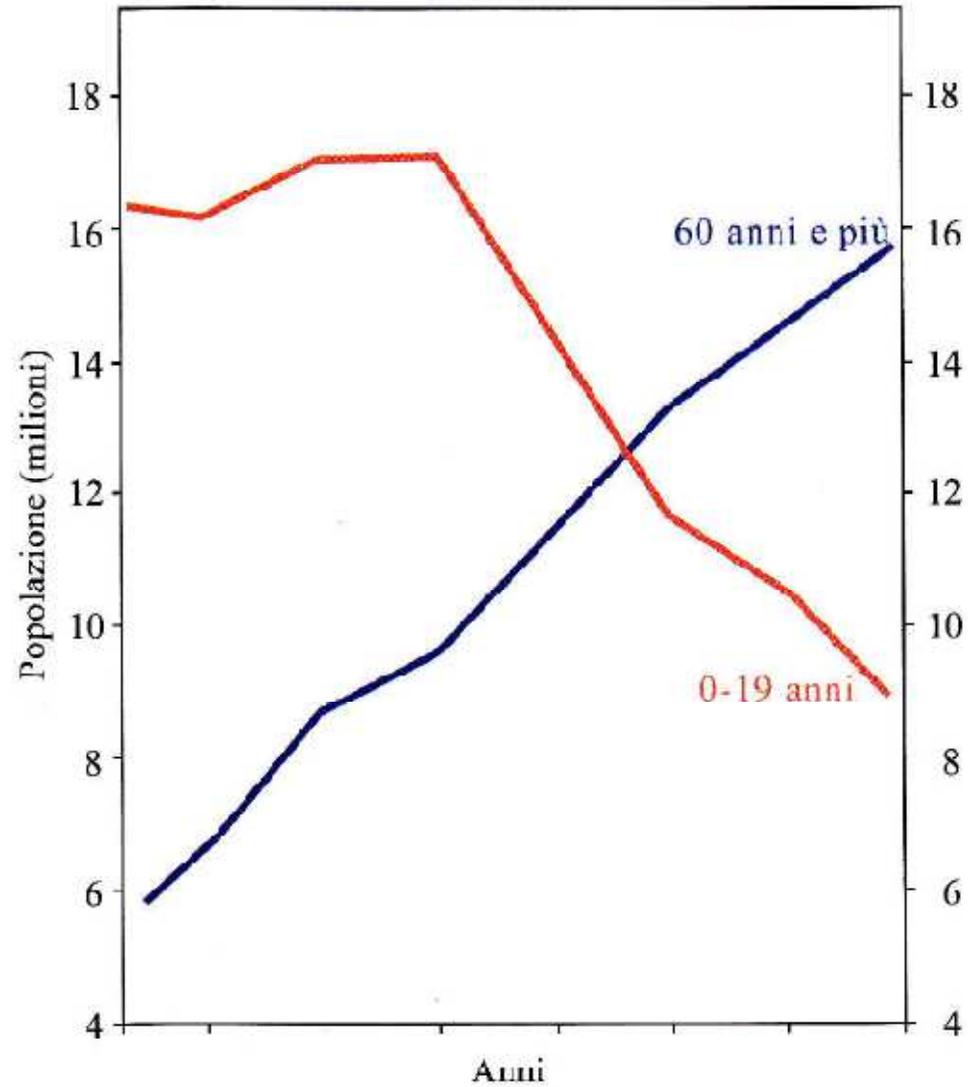
	≥ 65	%	≥ 85	% tra ≥ 65
1900	3.1	4.1	0.1	3.2
1950	12.3	8.2	0.6	4.9
2000	34.8	12.7	4.3	12.4
2050	82.0	20.3	19.4	23.7



Popolazione italiana per classi di età nel 2010

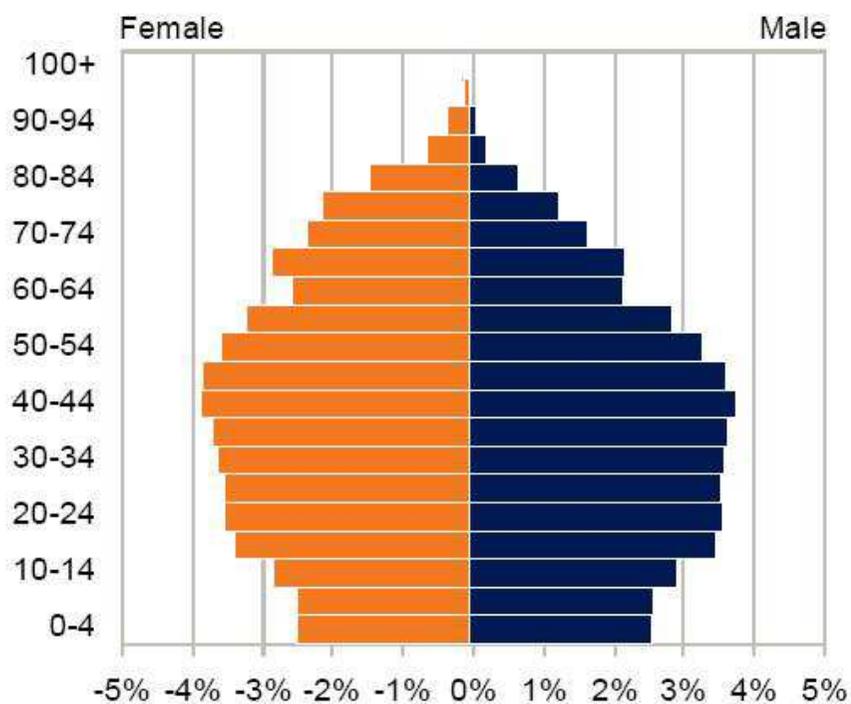


Evoluzione della popolazione italiana 1950-2020

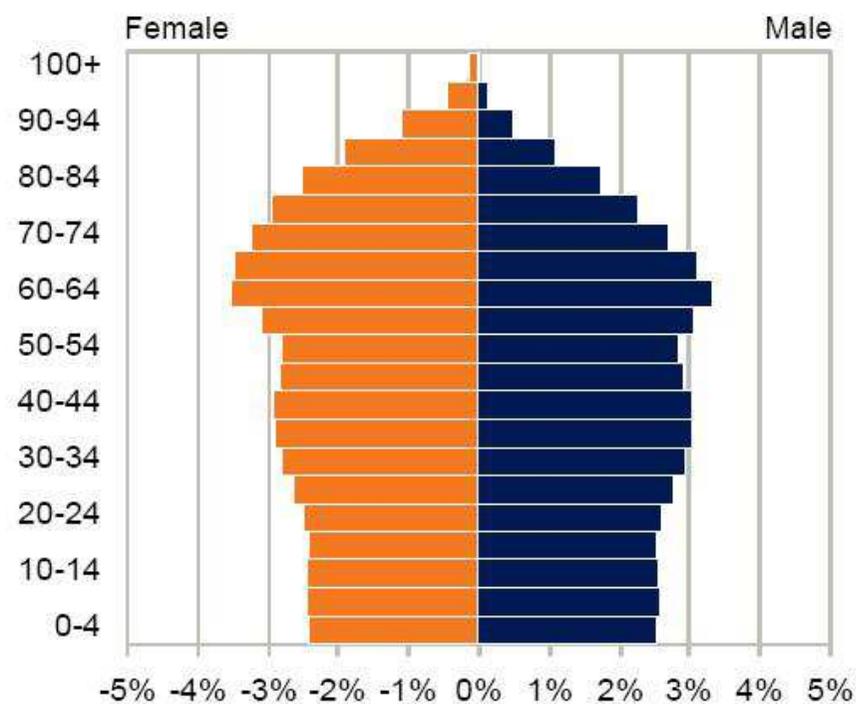


Evoluzione della popolazione europea 2005-2050

Figure 1: Population pyramids for Europe
(a) 2005, total population 729.4m

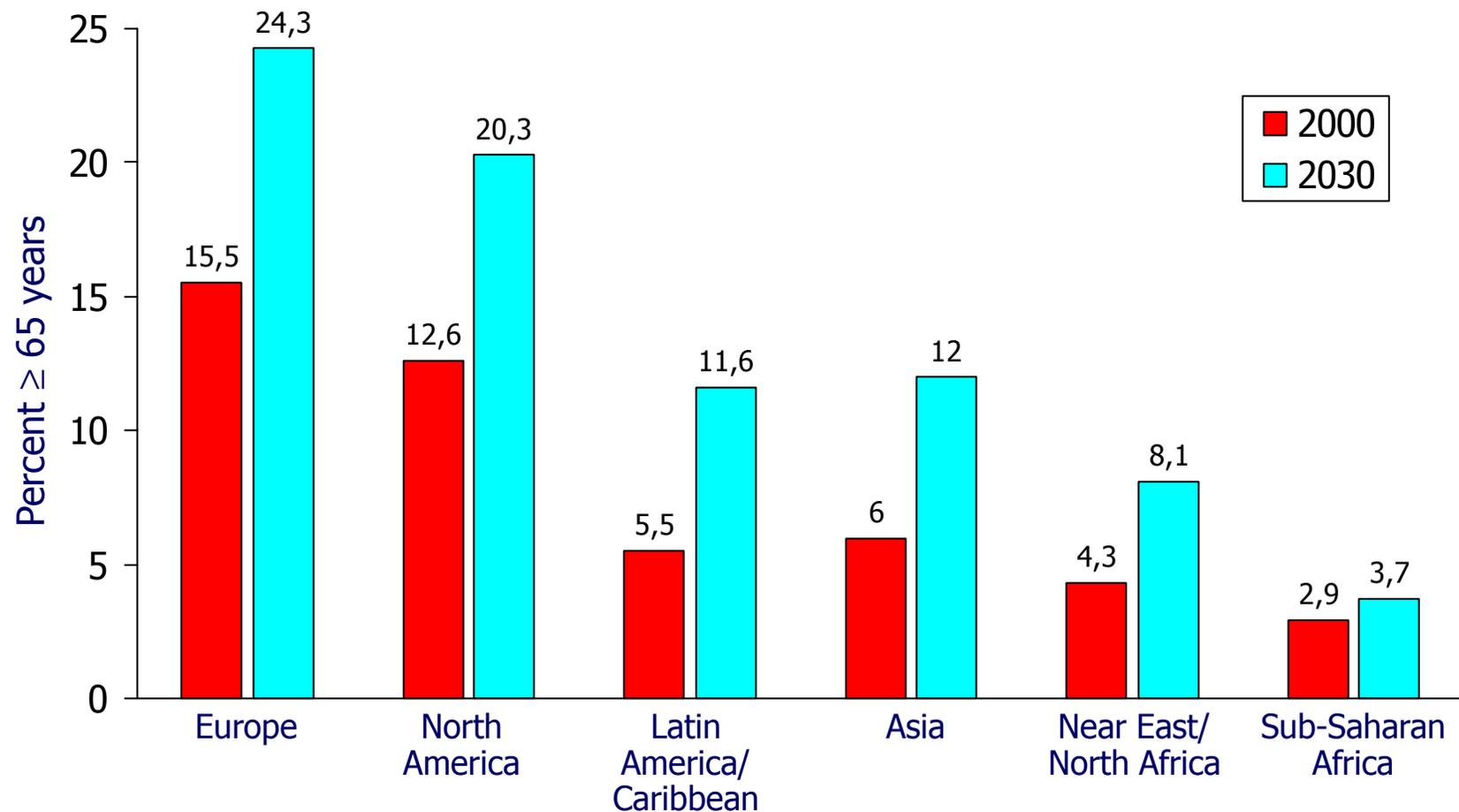


(b) 2050, total population 691m

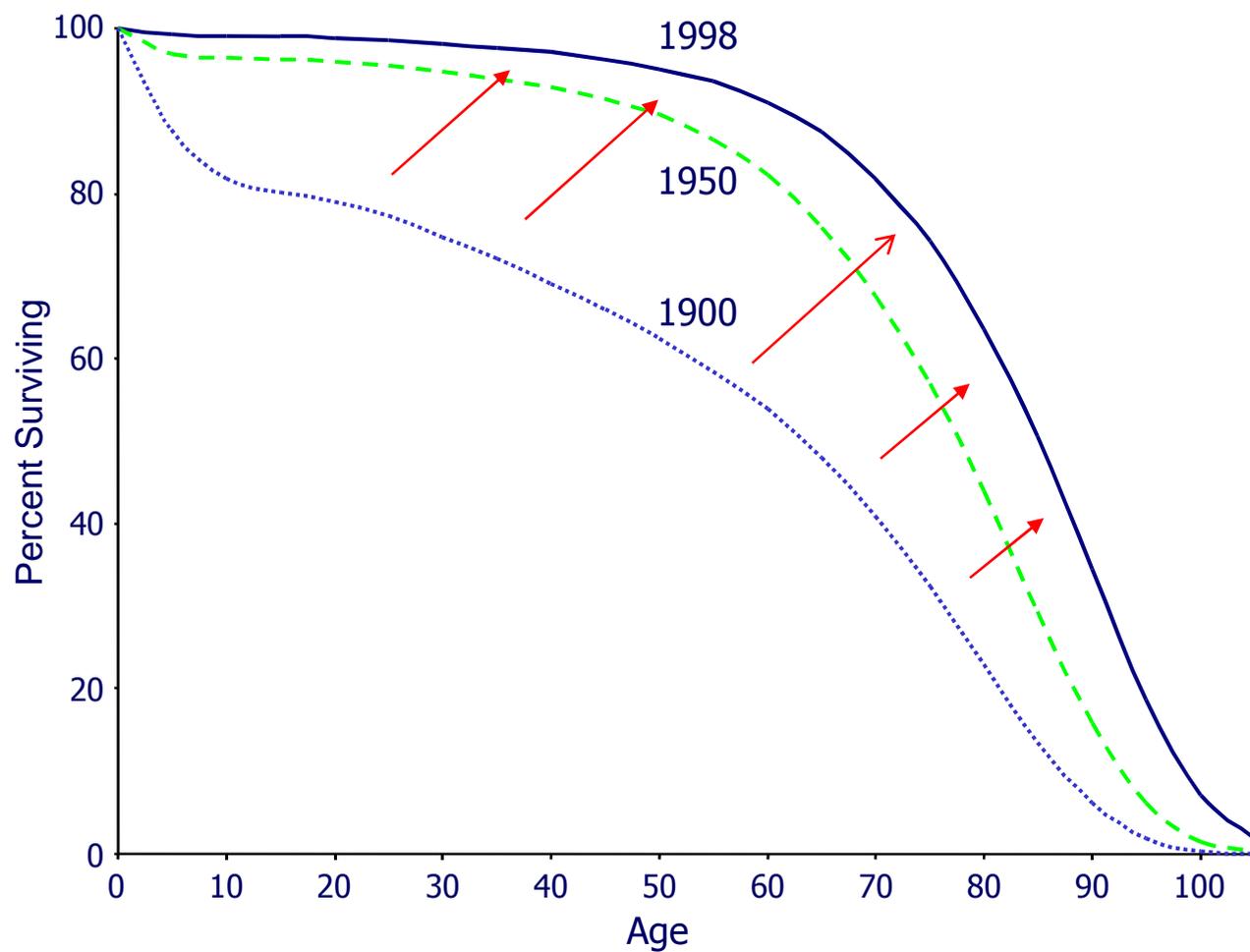


Source: UN World Population Prospects, 2008 Revision.

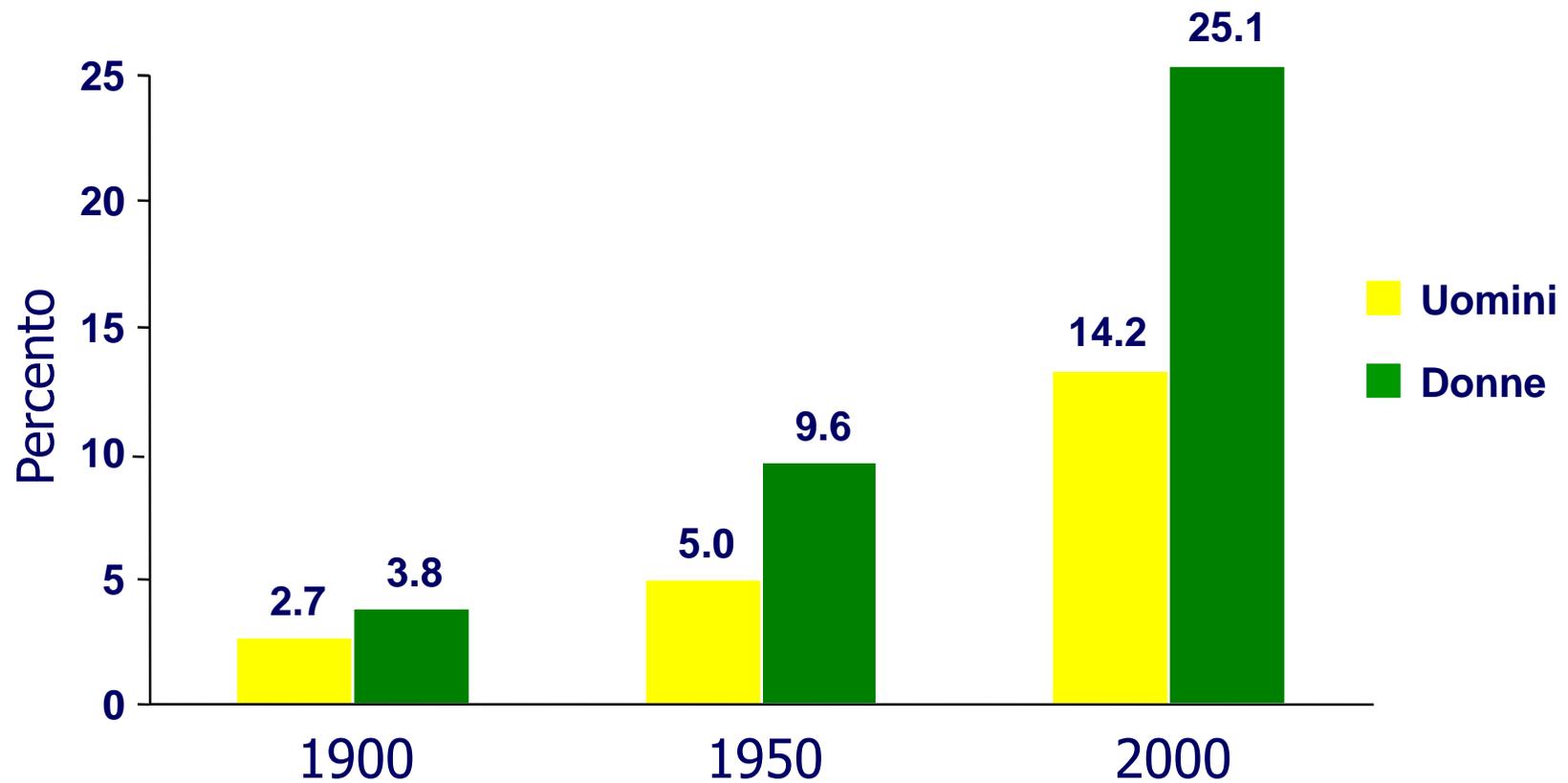
Percent of population age 65 years and older, 2000 and projected for 2030



Survival curves for U.S.A. population



Percentuale di soggetti cinquantenni che sopravvivono fino a 90 anni negli USA



Fattori responsabili dell'invecchiamento delle popolazioni

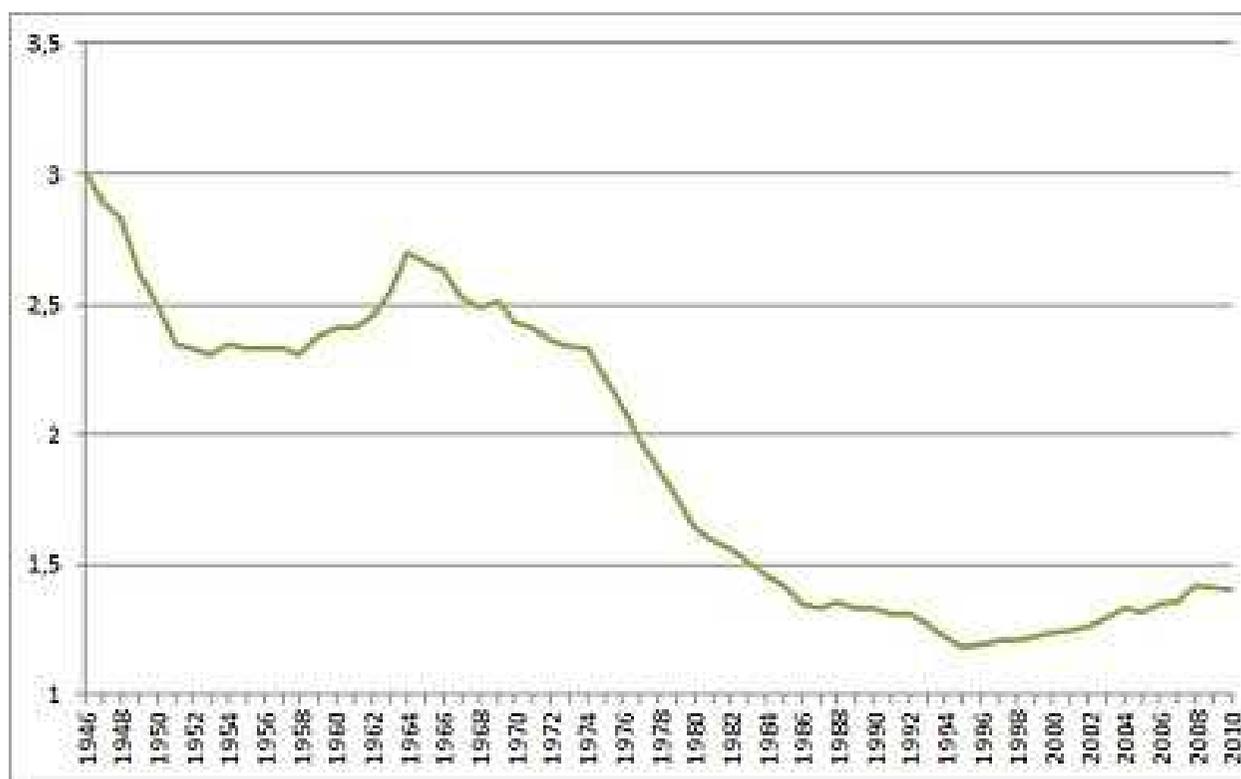
- **Fertilità**

- Le popolazioni con elevata fertilità hanno una bassa proporzione di soggetti anziani.
- Le proiezioni relative all'aumento percentuale dei soggetti ultra sessantacinquenni riflette principalmente la **riduzione di fertilità** verificatasi negli anni passati

- **Riduzione del tasso di mortalità**

- L'effetto della riduzione dei tassi di mortalità dipende dall'età nella quale tale riduzione si verifica.
- La riduzione dei tassi di mortalità infantile non si traduce in un invecchiamento della popolazione

Numero di figli per donna in Italia



Elaborazione di dati ISTAT dal 1946 al 2010

Indicatori Demografici

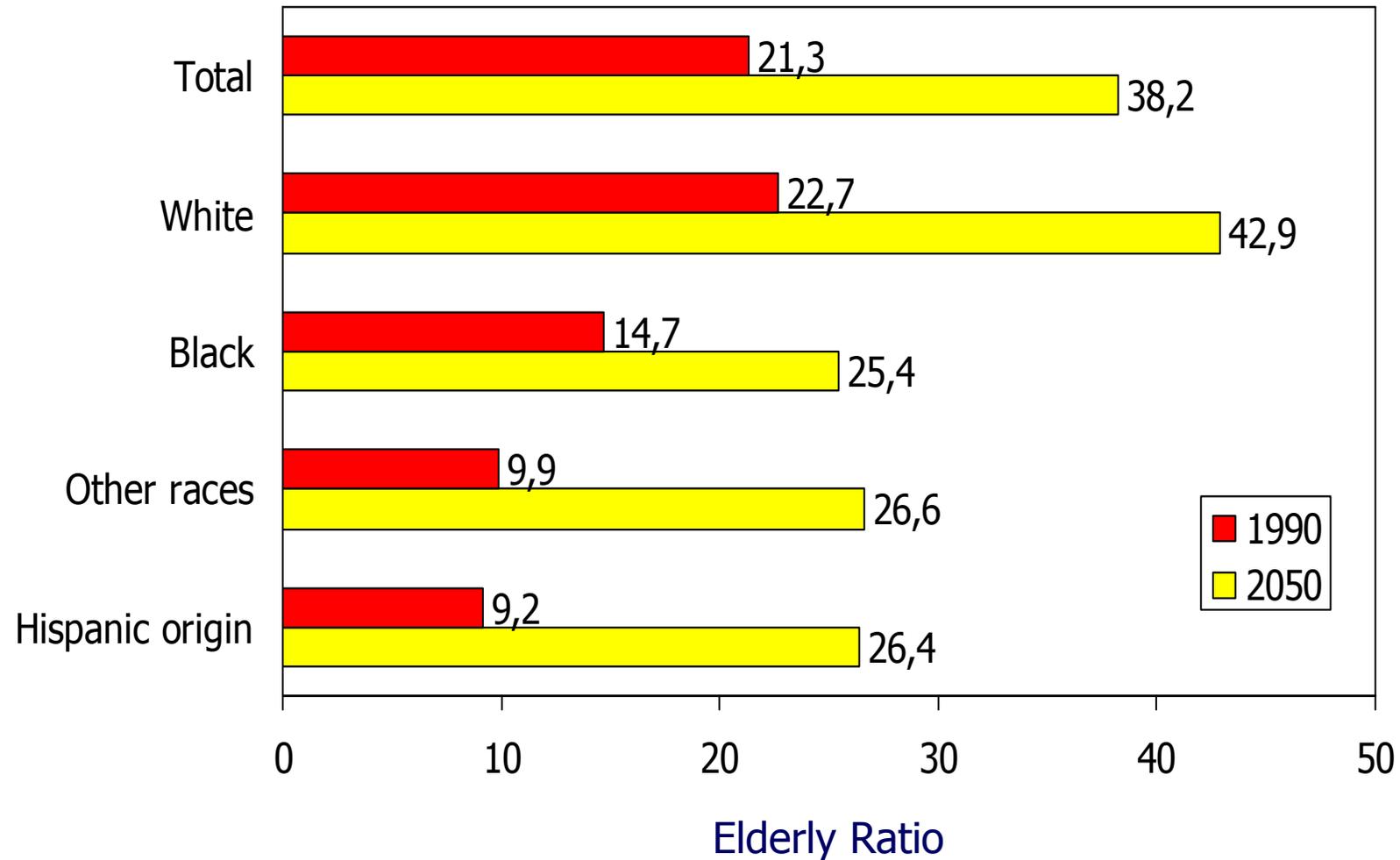
Indice di vecchiaia:

- rapporto tra il numero di soggetti di età ≥ 65 anni e il numero di soggetti di età compresa tra 20 e 64 anni, per 100.

Indice di dipendenza

- Rapporto tra la popolazione in età non attiva (fino a 14 e dopo i 65) e la popolazione in età attiva (15-65), per 100.

Indice di vecchiaia: Stati Uniti



Speranza di vita media:

- Il numero medio di anni di vita attesi per un individuo ad una determinata età (es. alla nascita)

Speranza di vita attiva:

- Il numero medio di anni di vita *libera da disabilità*, attesi per un individuo ad una determinata età

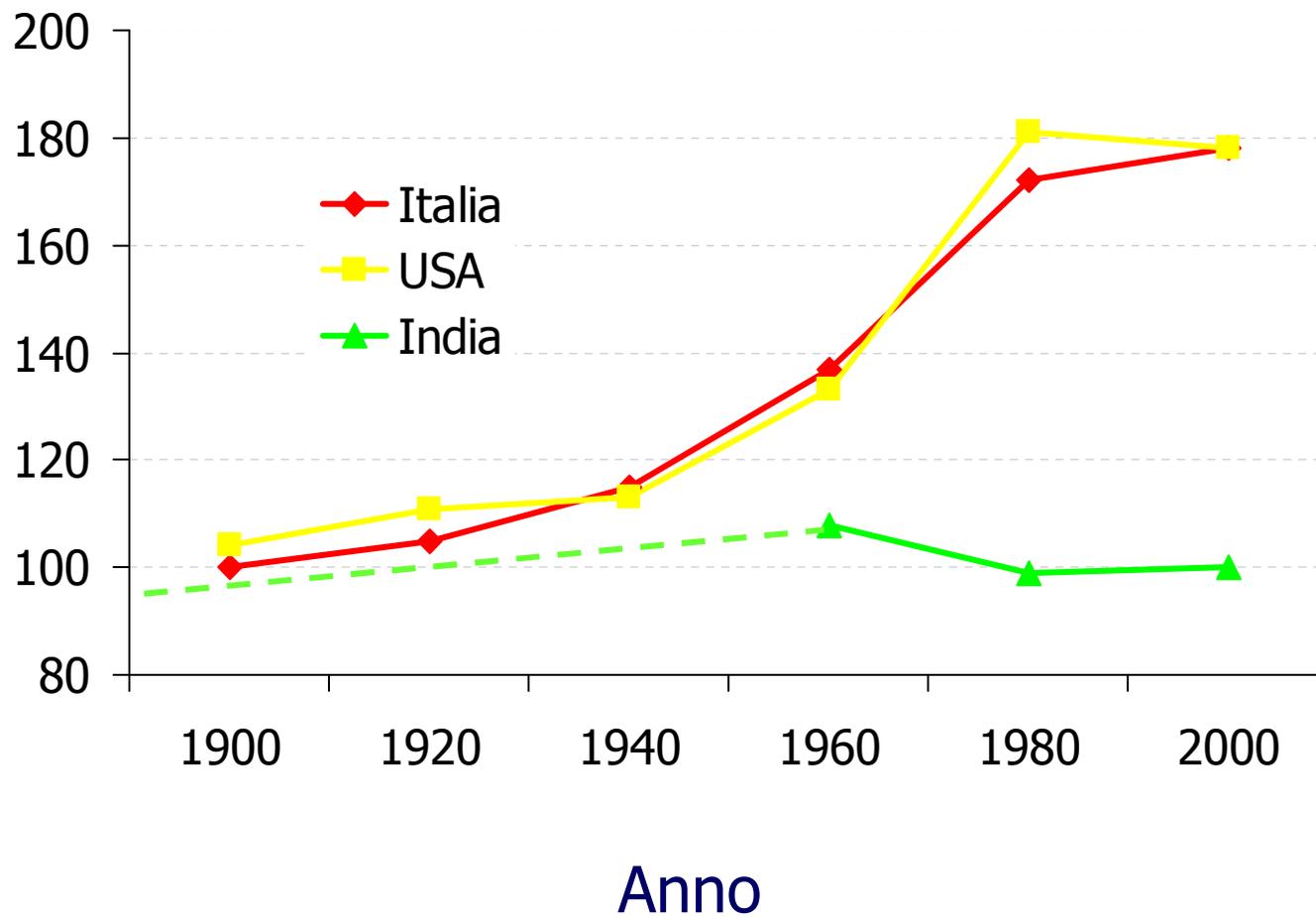
Speranza di vita con disabilità:

- Il numero medio di anni di vita *con disabilità*, attesi per un individuo ad una determinata età

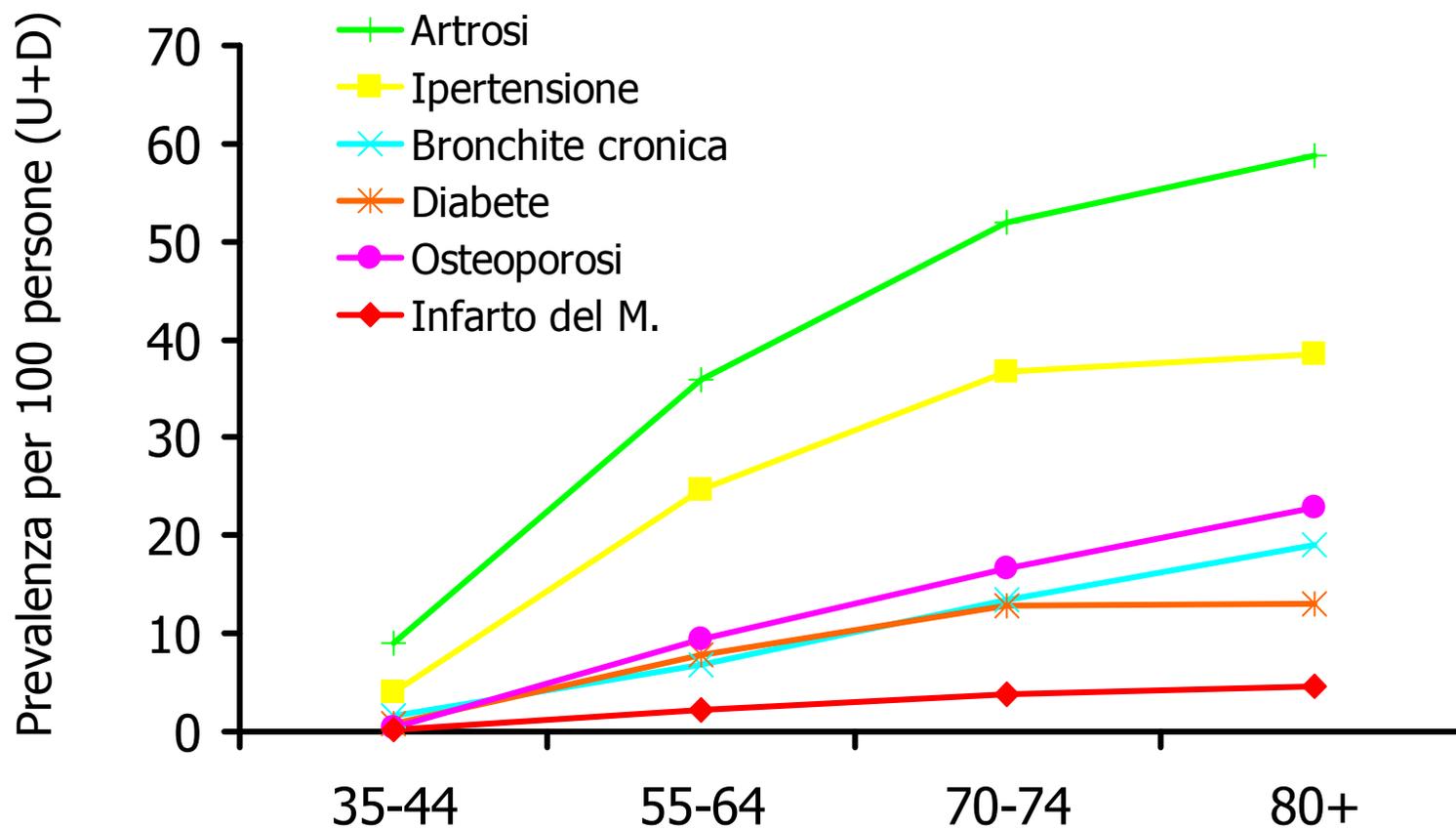
Italia: Speranza di vita media

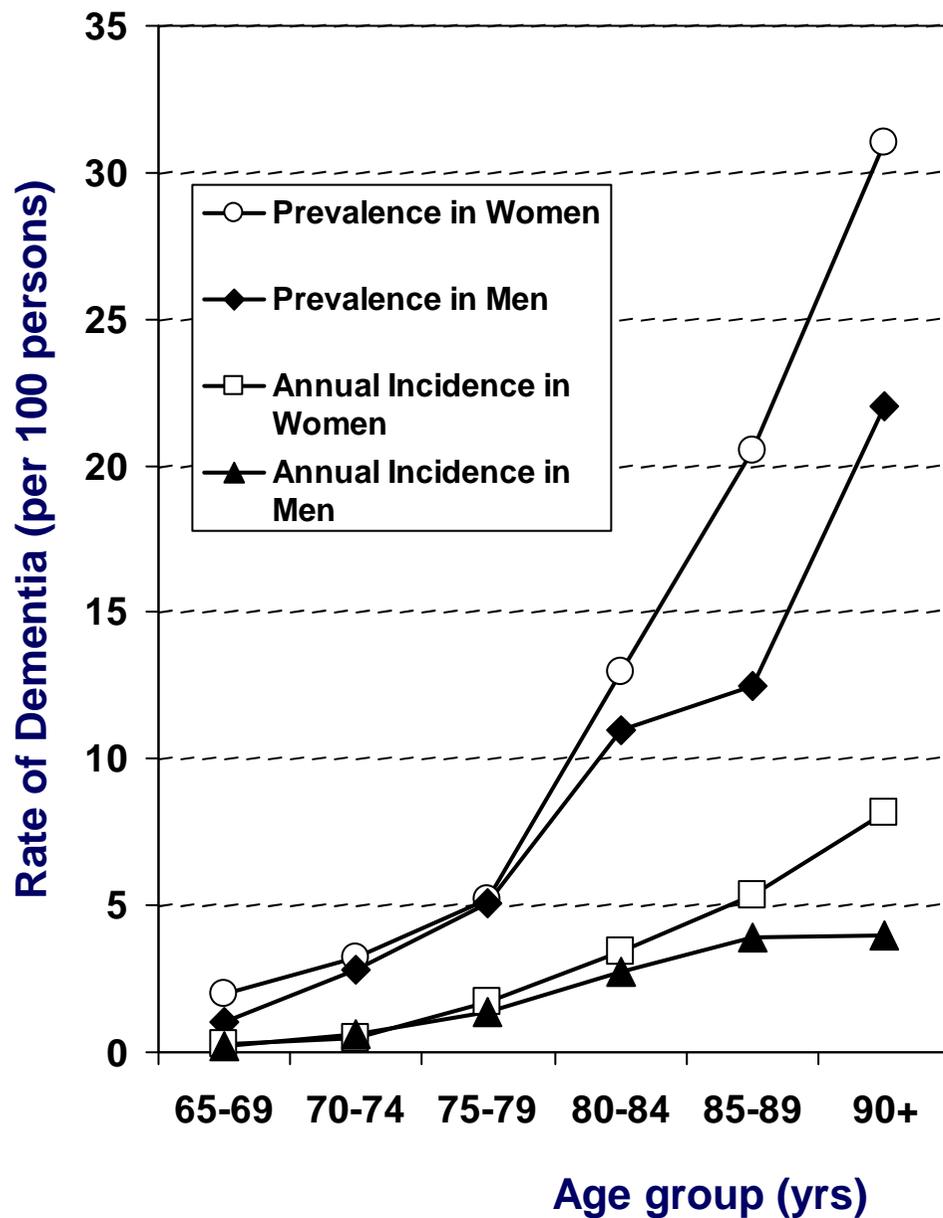
	Uomini	Donne
1991:	73.9	80.3
2003:	76.8	82.5
2007	79.4	84.5
2017	80.6	85.0

Numero di donne per 100 uomini di età ≥ 75 anni, in diversi paesi



Prevalenza di patologie croniche in rapporto all'età (ISTAT 1999-2000)

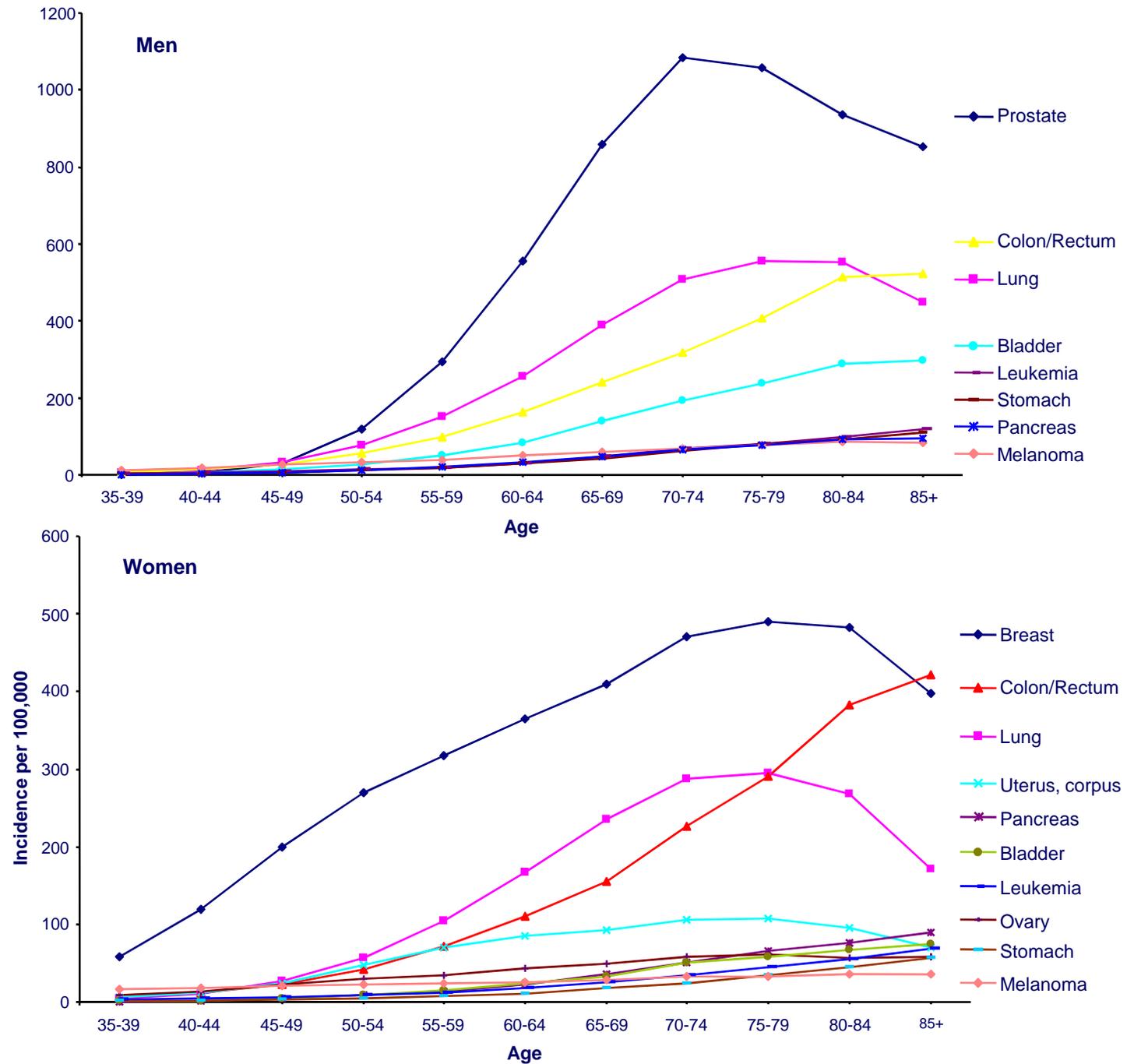




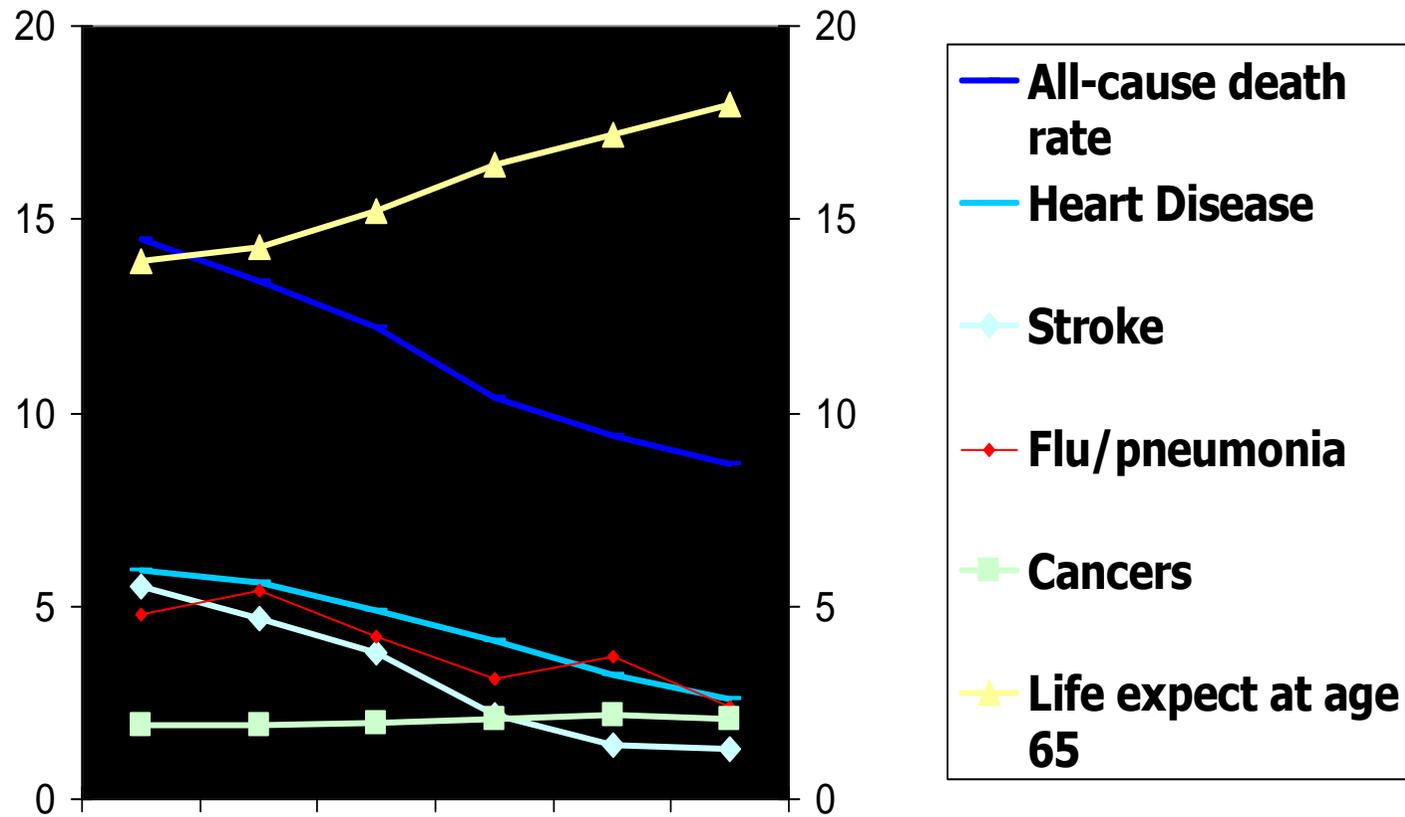
Age- and sex-specific prevalence and incidence of **Dementia** in persons age 65 and older.

Data from pooled analyses of eleven studies carried out in eight European countries (prevalence) and in eight studies in seven countries (incidence).

Incidence rates of specific cancers in men and women by age.

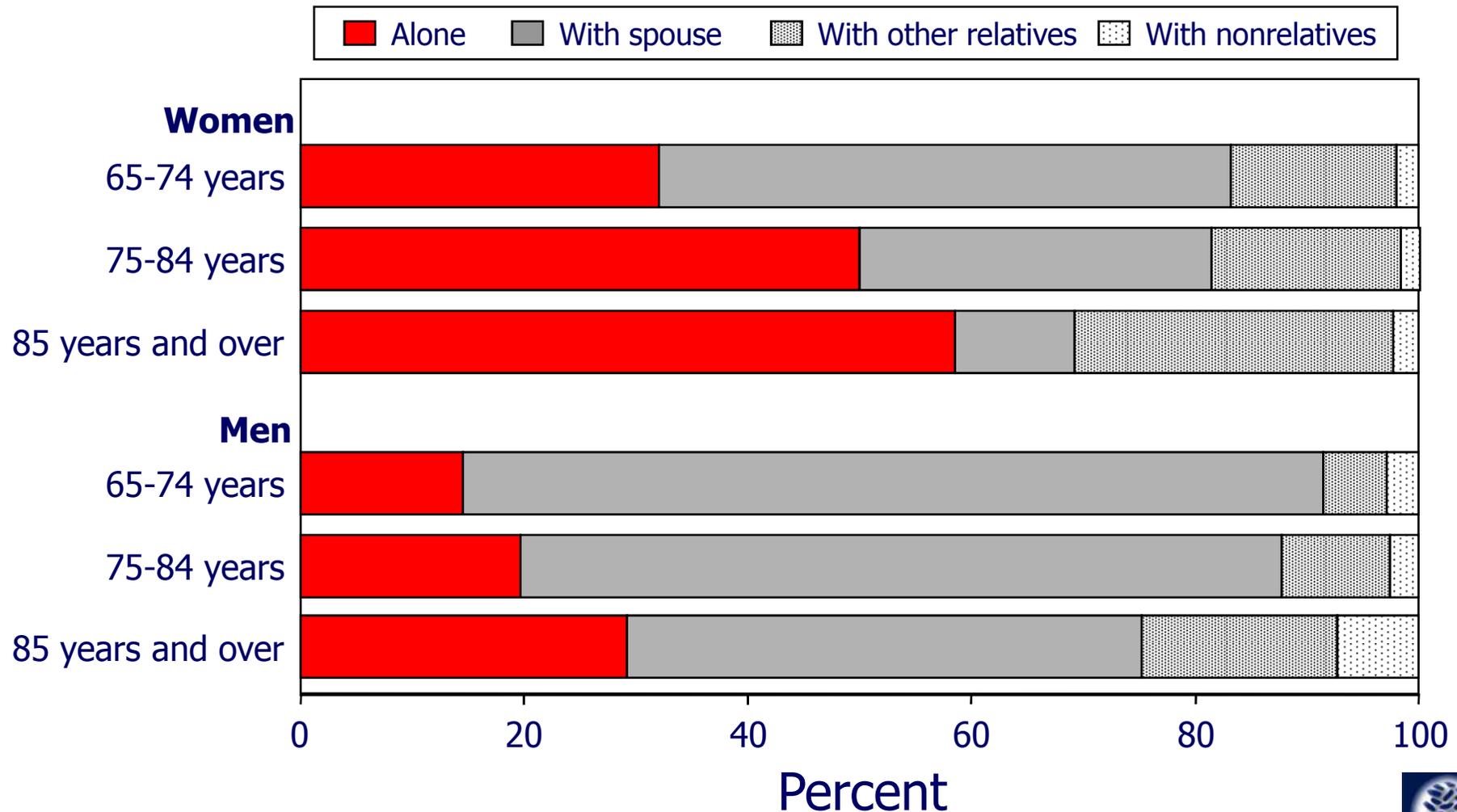


Trends in Mortality Risk for 6 leading Major Causes of Death among US adults aged 65-74*



*National Center for Health Statistics, Health USA, 2005; *flu/pneumonia estimated for overall population*

Living arrangements of community-dwelling persons 65 years and over, U.S.A. 1997





Consiglio Nazionale delle Ricerche



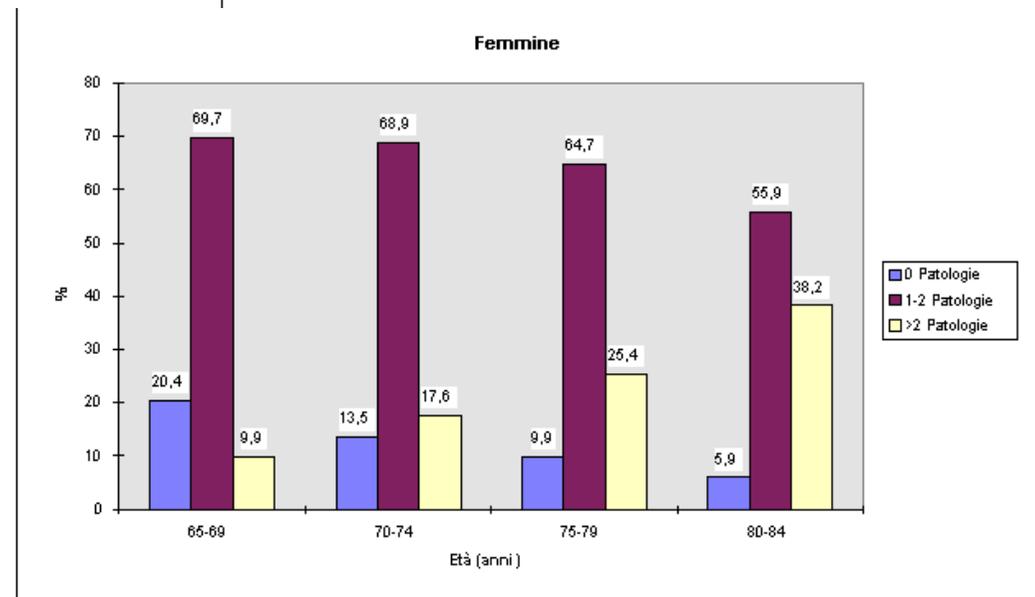
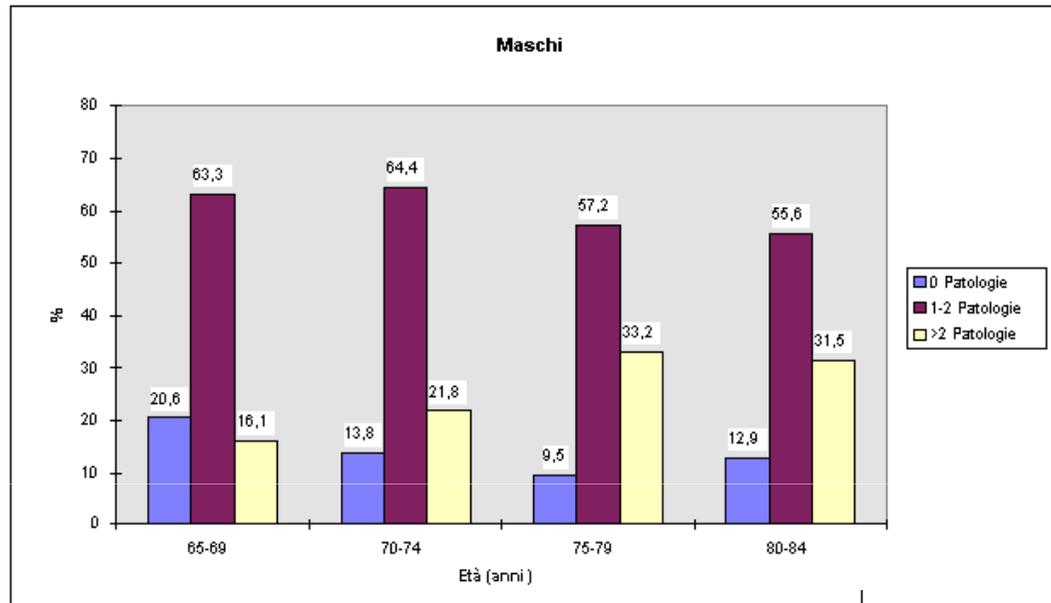
Progetto Finalizzato Invecchiamento

Lo Studio ILSA

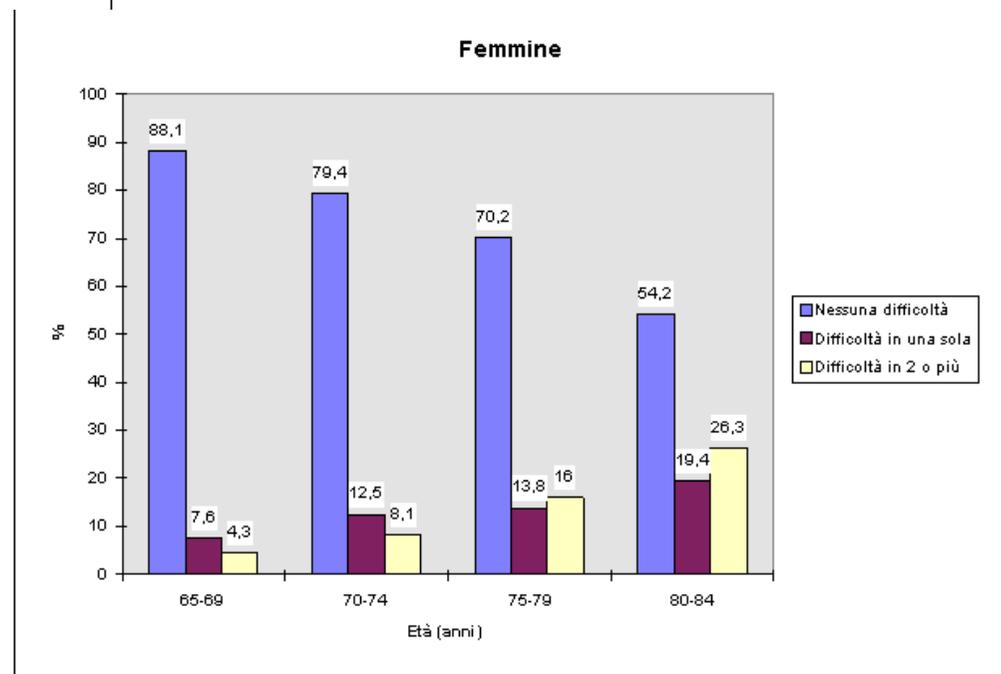
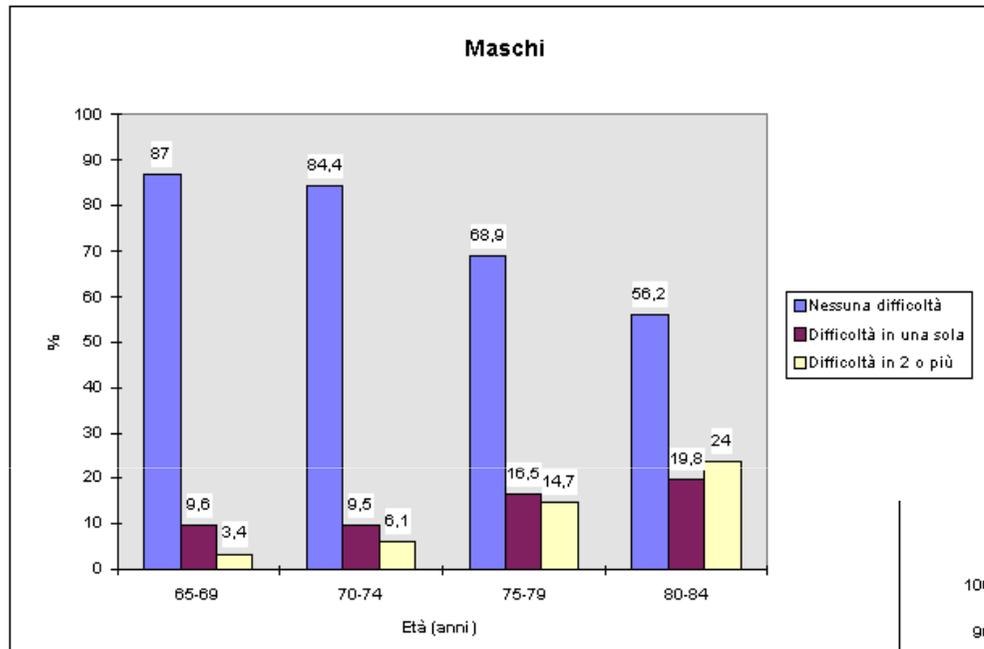
Italian Longitudinal Study on Aging



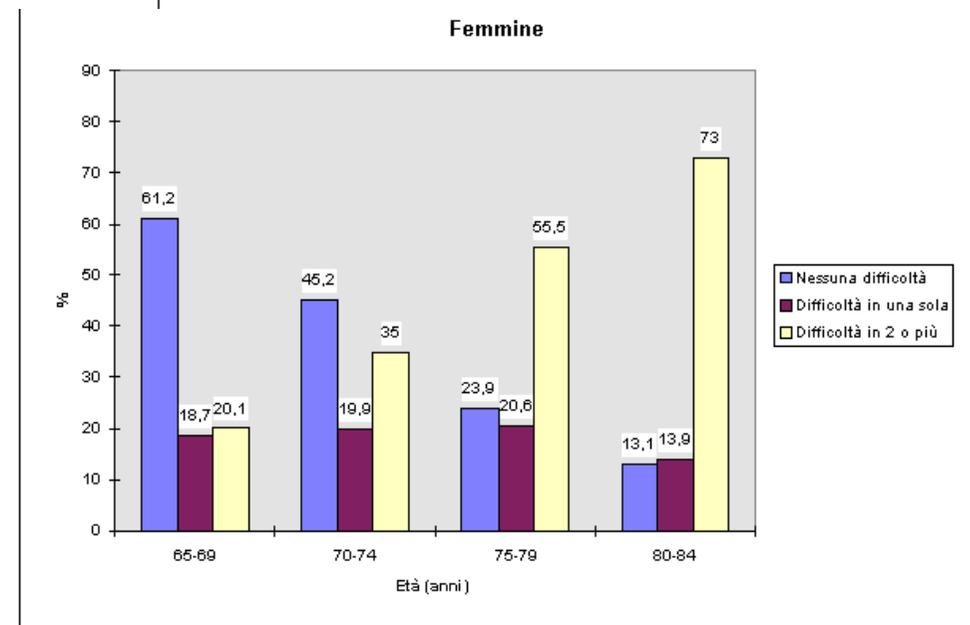
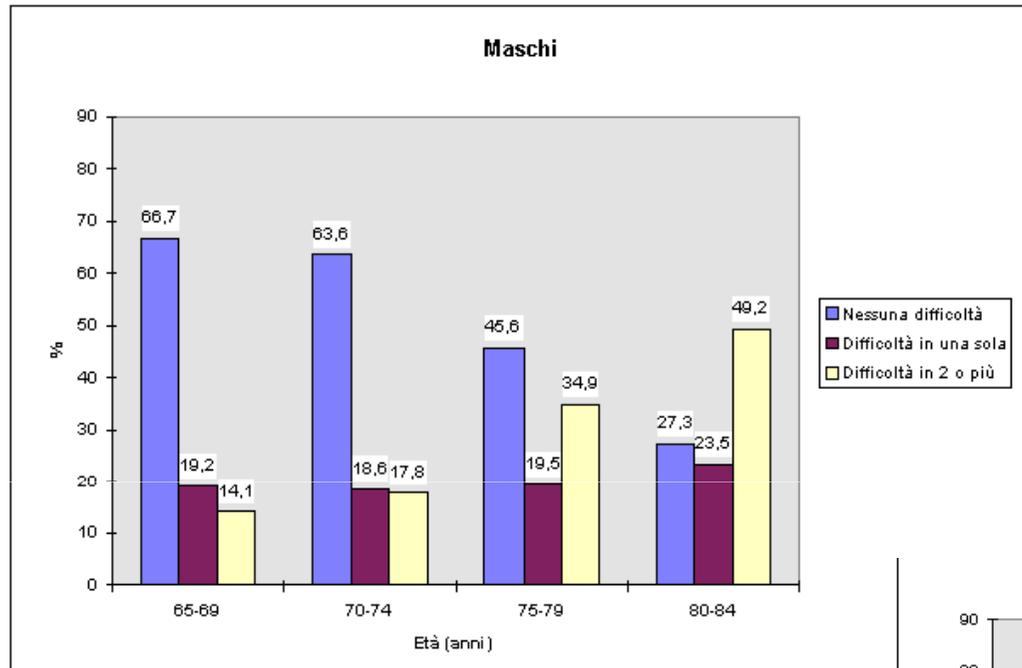
Studio ILSA: comorbidità ed età



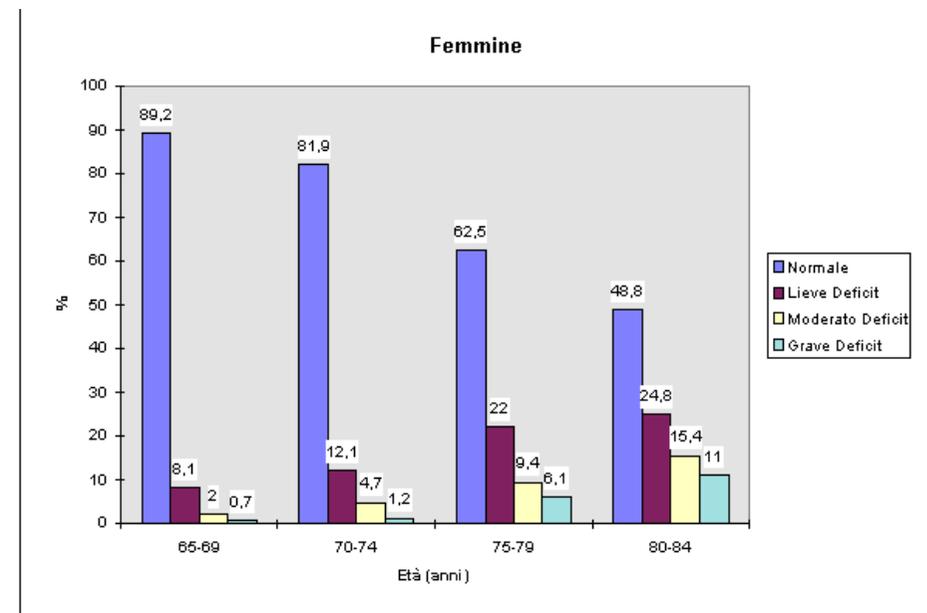
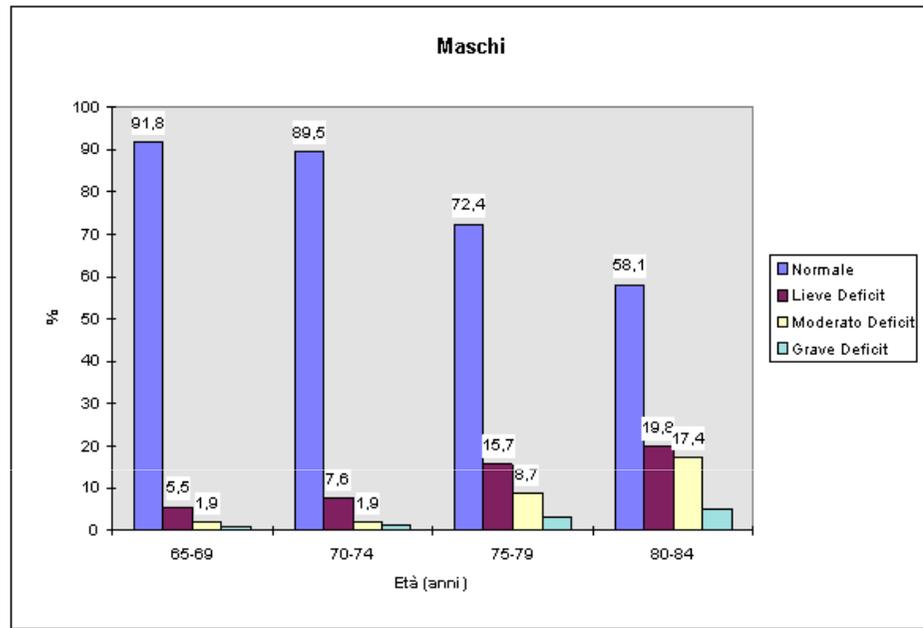
Studio ILSA: disabilità per sesso nelle attività di base



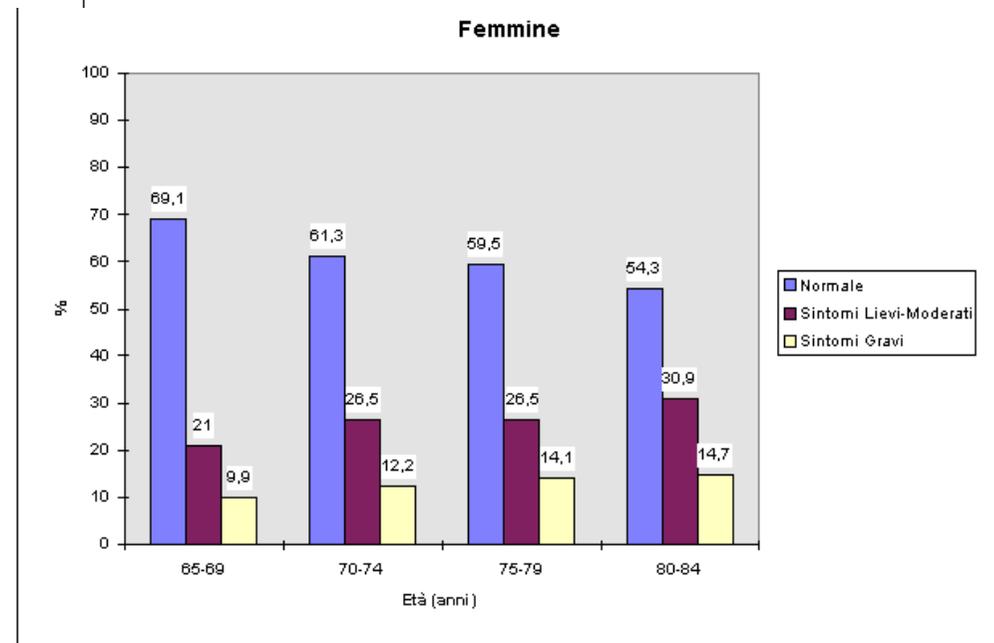
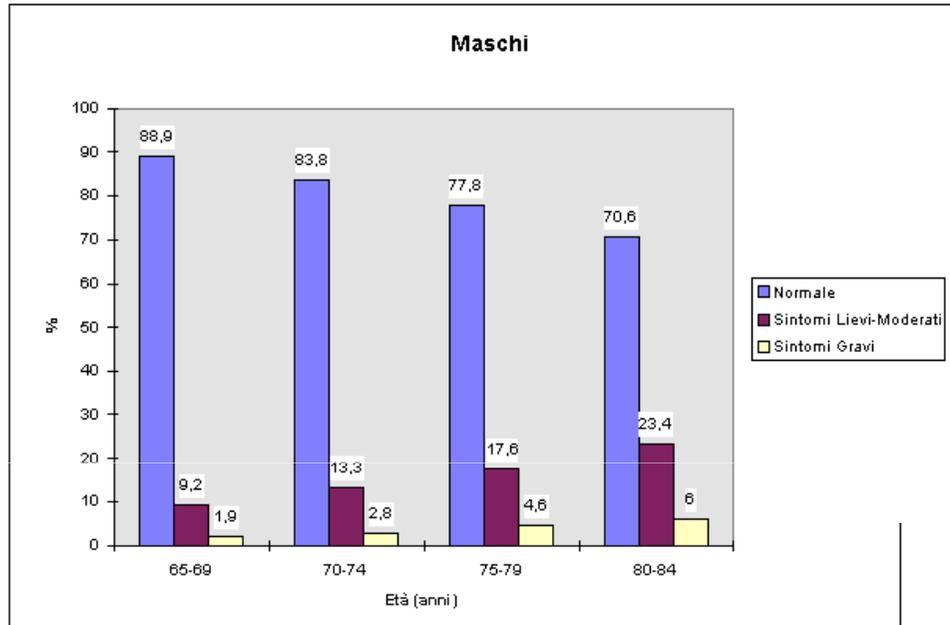
Studio ILSA: disabilità per sesso nelle attività strumentali



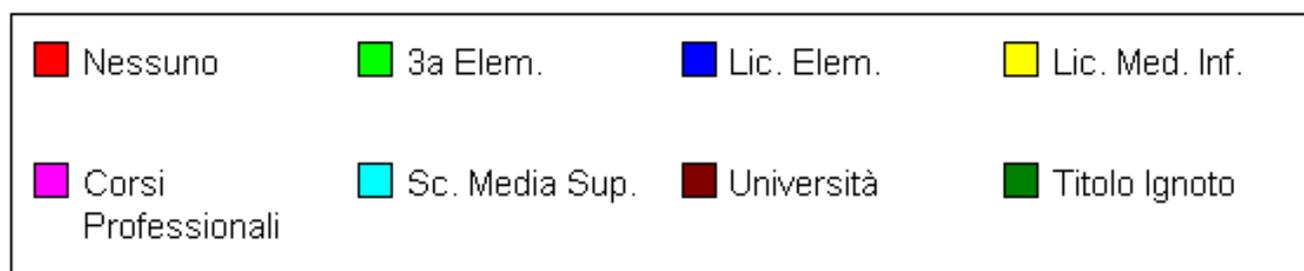
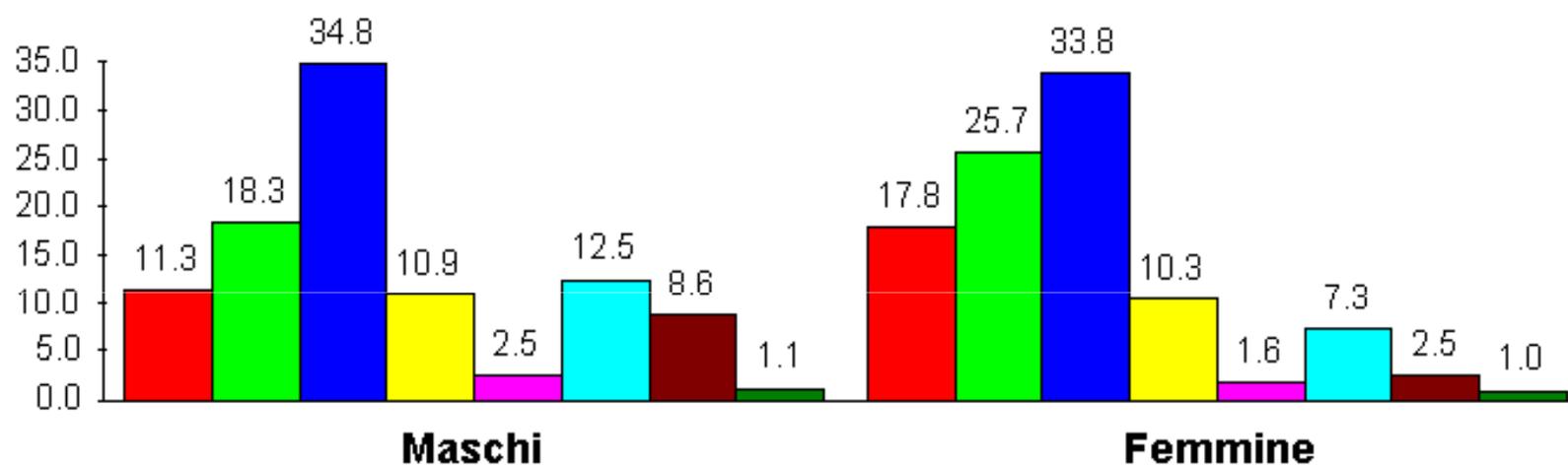
Studio ILSA: funzioni cognitive ed età



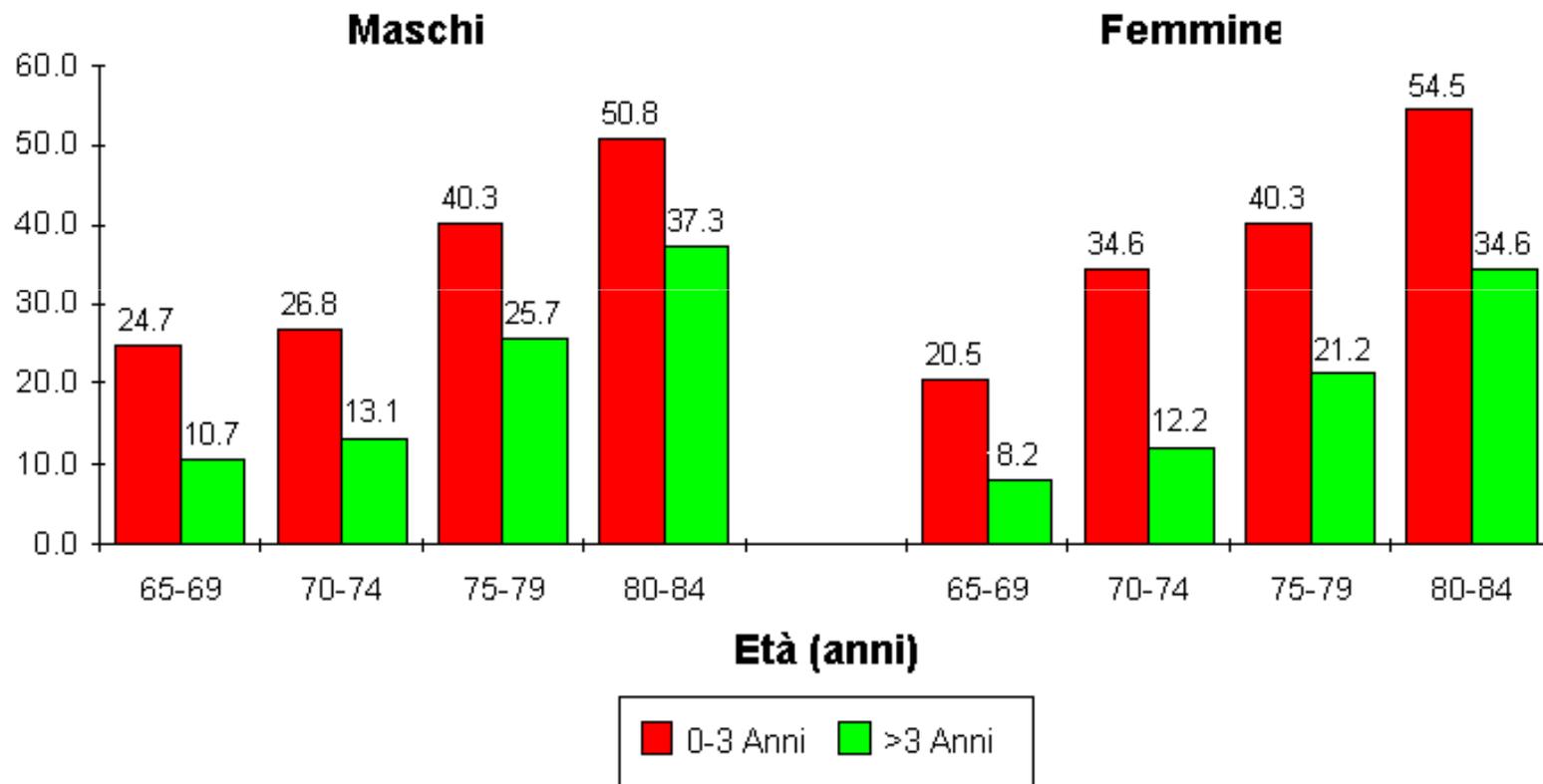
Studio ILSA: depressione ed età



Studio ILSA: titolo di studio per sesso

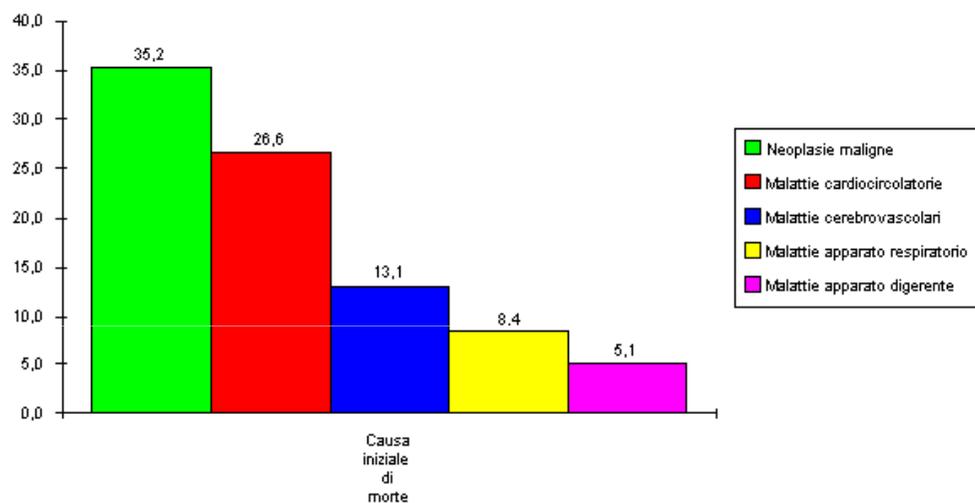


Studio ILSA: disabilità in almeno 1 attività quotidiana e scolarità

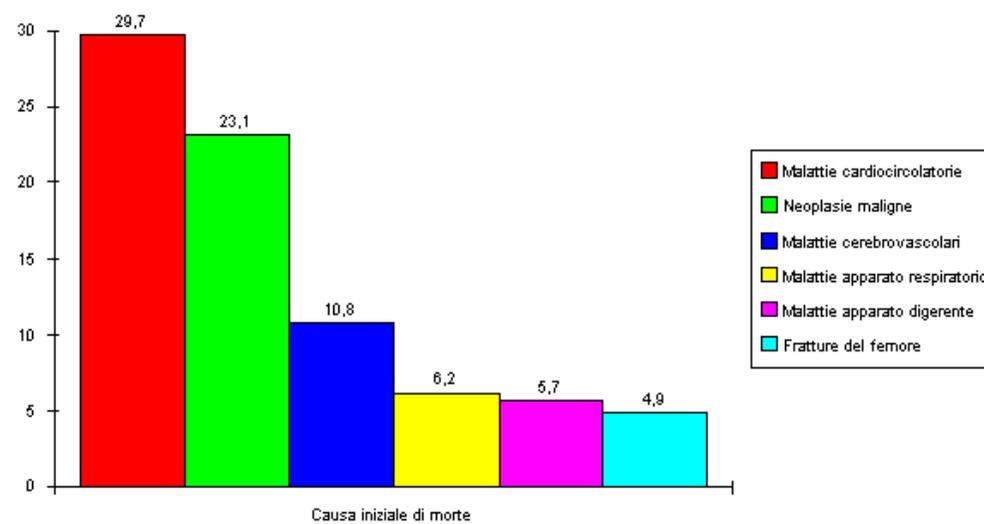


Studio ILSA: cause di morte per sesso

MASCHI



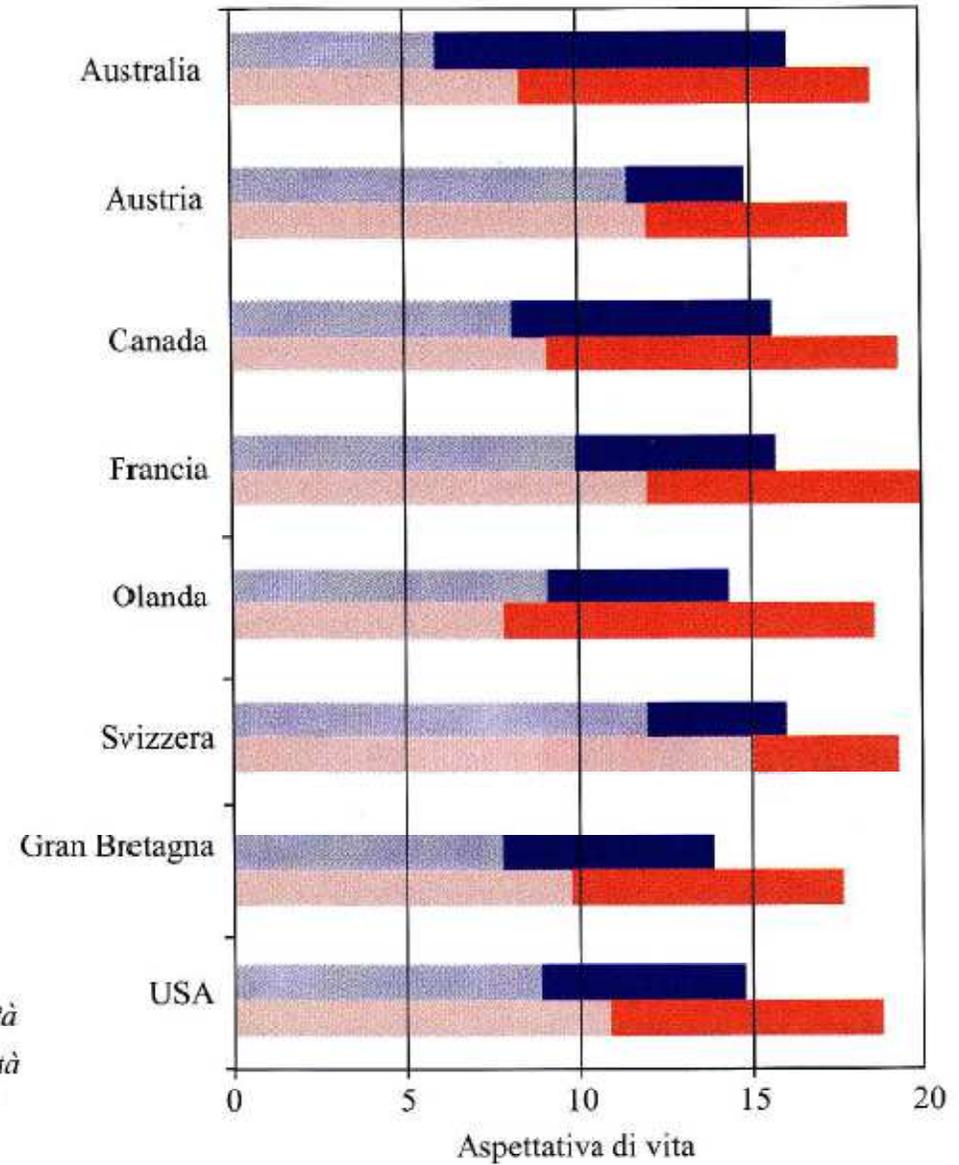
FEMMINE



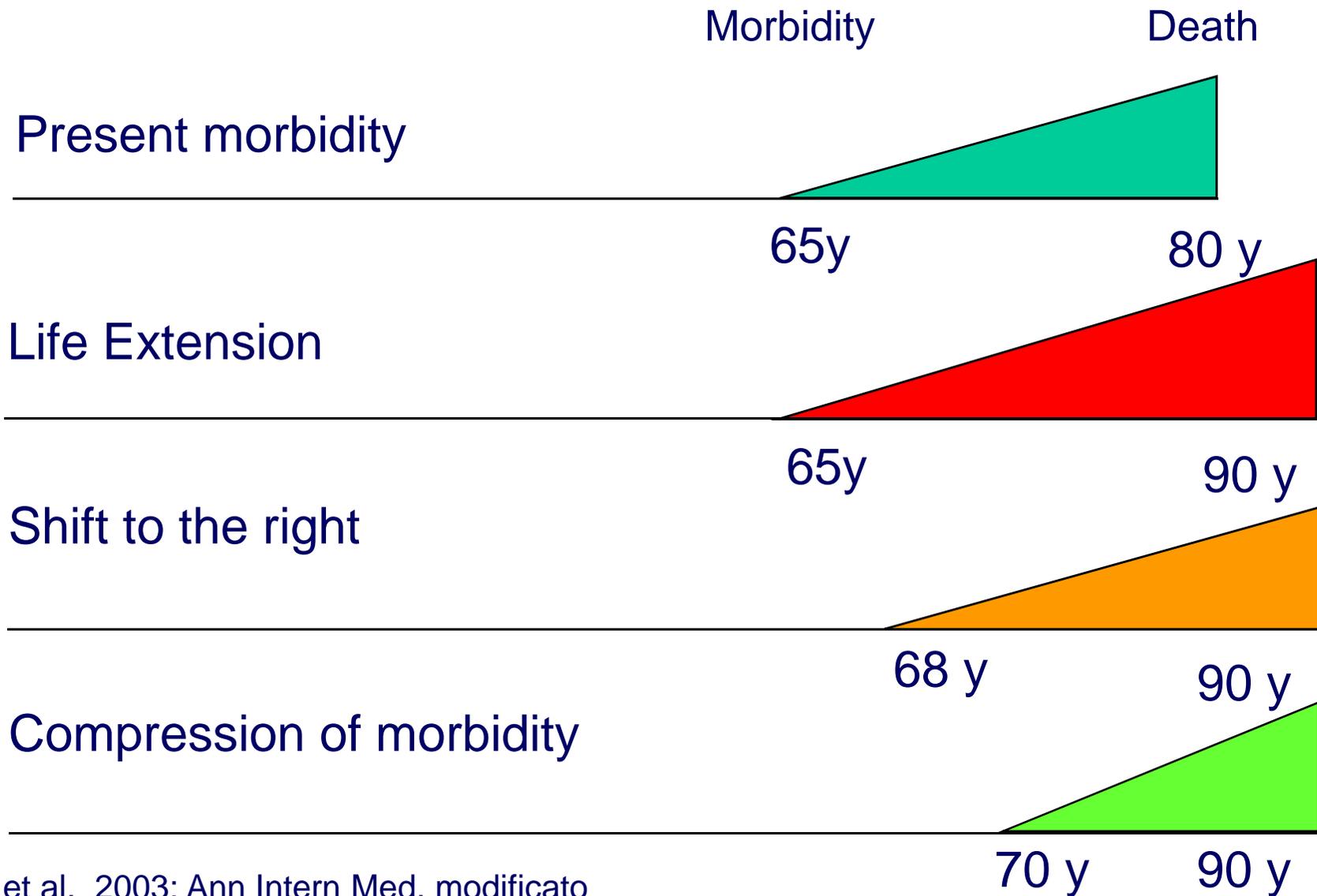
Aspettativa di vita all'età di 65 anni e disabilità nei due sessi

O.M.S. 1995

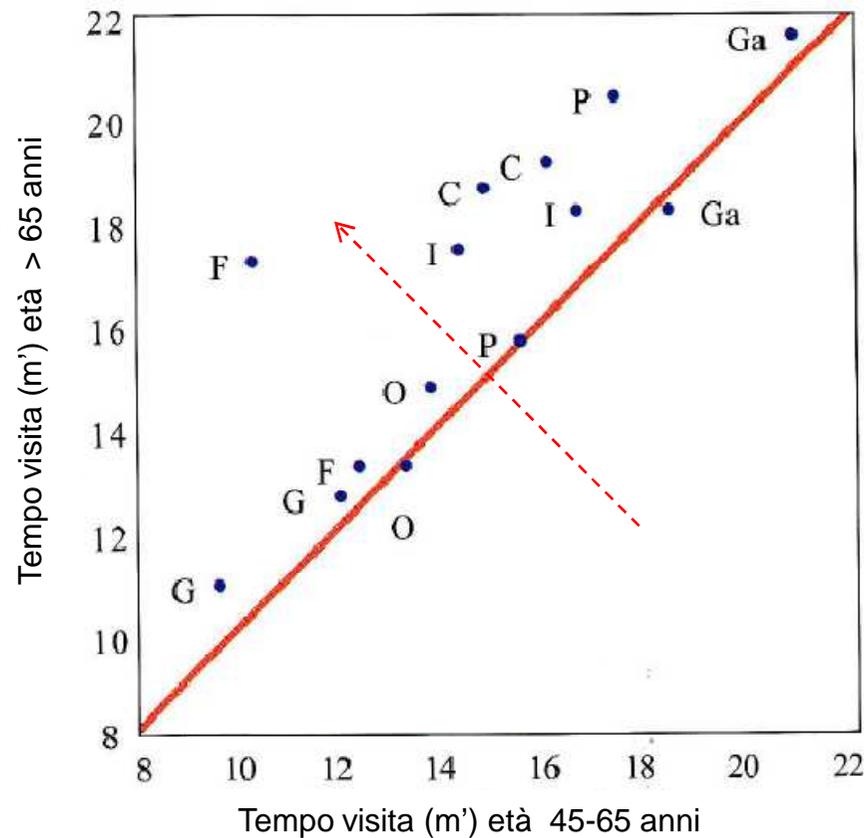
- *Femmine senza disabilità*
- *Maschi senza disabilità*
- Con disabilità*
- Con disabilità*



Possible Scenarios for Future Morbidity and Longevity

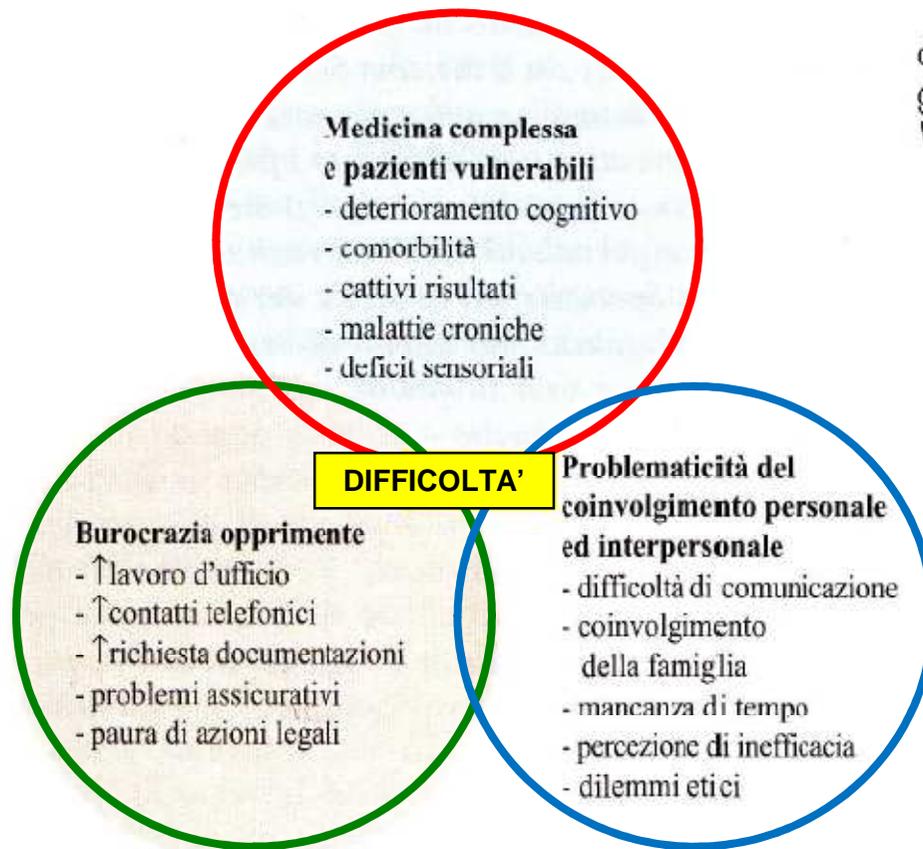


Tempo dedicato alla visita da parte dei medici di famiglia e degli specialisti in base all'età del paziente



Medico di famiglia e paziente anziano in USA

Motivi per i quali negli USA il medico di medicina generale ritiene particolarmente impegnativa l'assistenza al paziente anziano (Adams W.L. et al., 2002).



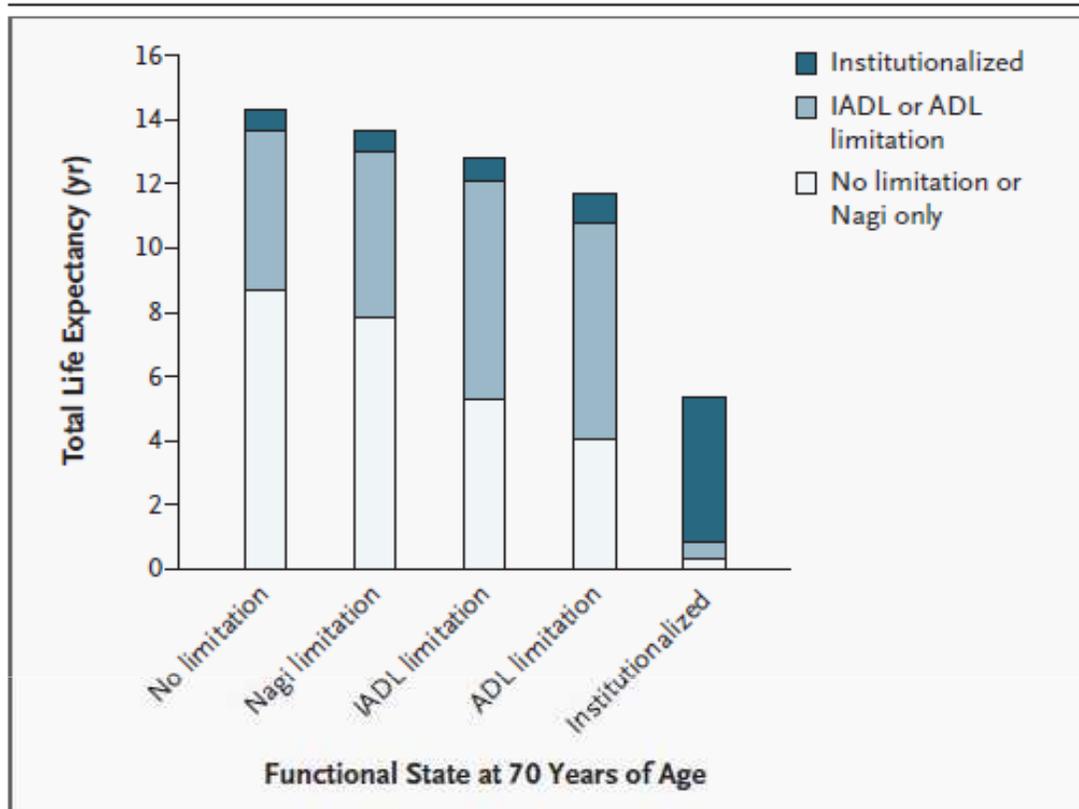


Figure 1. Life Expectancy at 70 Years of Age According to Functional State at the Age of 70.

The shading in the bars indicates the expected number of years lived in various functional states. For example, a person with no limitations at the age of 70 is estimated to live an additional 14.3 years, on average. Of those 14.3 years, 0.7 will be spent in an institution, 4.9 with a limitation in at least one instrumental activity of daily living (IADL) or activity of daily living (ADL), and 8.7 (61 percent of total life expectancy) with no limitation or only Nagi limitations. Instrumental activities of daily living, activities of daily living, and Nagi limitations are described in the Methods section.

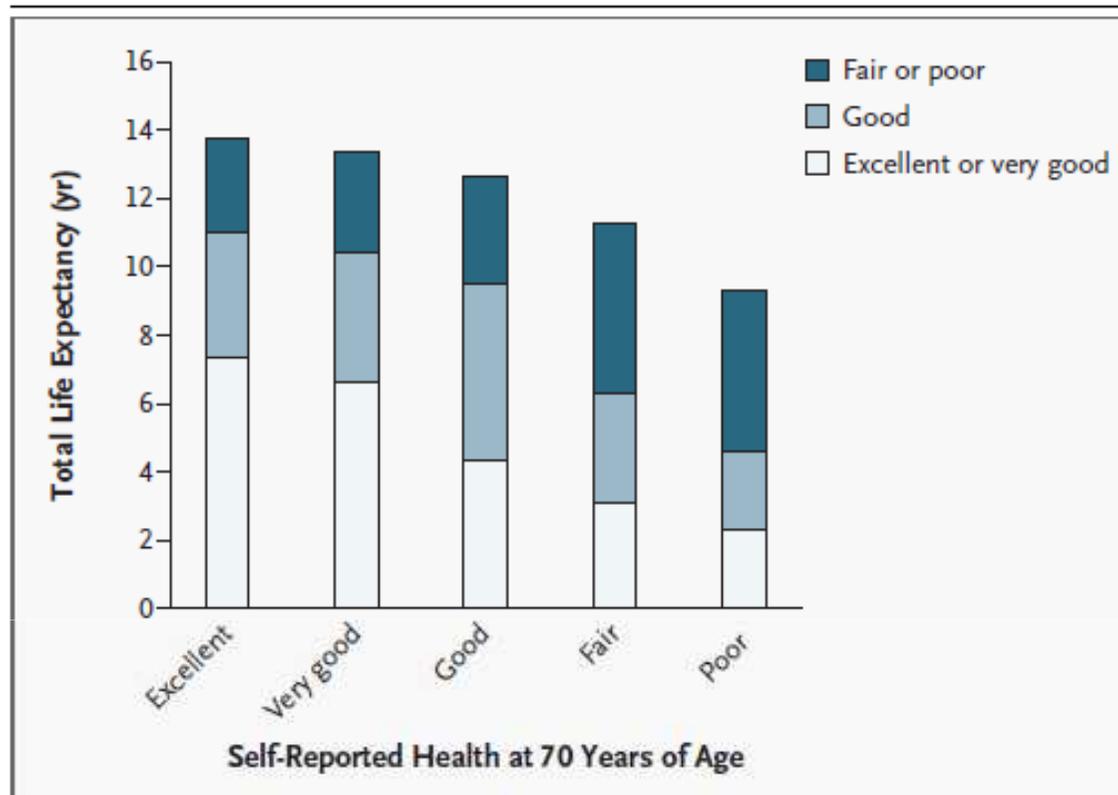


Figure 2. Life Expectancy at 70 Years of Age According to Self-Reported Health at the Age of 70.

The shading in the bars indicates the expected number of years lived in various states of health. For example, a person who reports excellent health at the age of 70 is estimated to live an additional 13.8 years, on average. Of those 13.8 years, 2.7 will be lived in fair or poor health, 3.7 in good health, and 7.3 (53 percent of total life expectancy) in very good or excellent health.

ePrognosis

Estimating Prognosis
for Elders

TABLE 1. MULTIDIMENSIONAL PROGNOSTIC INDEX SCORE ASSIGNED TO EACH DOMAIN BASED ON THE SEVERITY OF THE PROBLEM

Assessment	Problem		
	No (value = 0)	Minor (value = 0.5)	Severe (value = 1)
Activities of Daily Living (ADL) ^a	6-5	4-3	2-0
Instrumental ADL (IADL) ^a	8-6	5-4	3-0
Short Portable Mental Status Questionnaire (SPMSQ) ^b	0-3	4-7	8-10
Comorbidity Index (CIRS-CI) ^c	0	1-2	≥3
Mini Nutritional Assessment (MNA) ^d	≥24	17-23.5	<17
Exton Smith Scale (ESS) ^e	16-20	10-15	5-9
Number of medications	0-3	4-6	≥7
Social support network	Living with family	Institutionalized	Living alone

^aNumber of active functional activities.

^bNumber of errors.

^cNumber of diseases (see text).

^dMNA score: ≥24, satisfactory nutritional status; 17-23.5, at risk of malnutrition; <17, malnutrition.

^eESS score: 16-20, minimum risk; 10-15, moderate risk; 5-9, high risk of developing scores.

Geripal

Spettanza di vita nell'anziano e spesa sanitaria pro-capite

