

The Monzino 80-plus Study



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Living to 100 Conference

Sydney, 7-8 September 2018

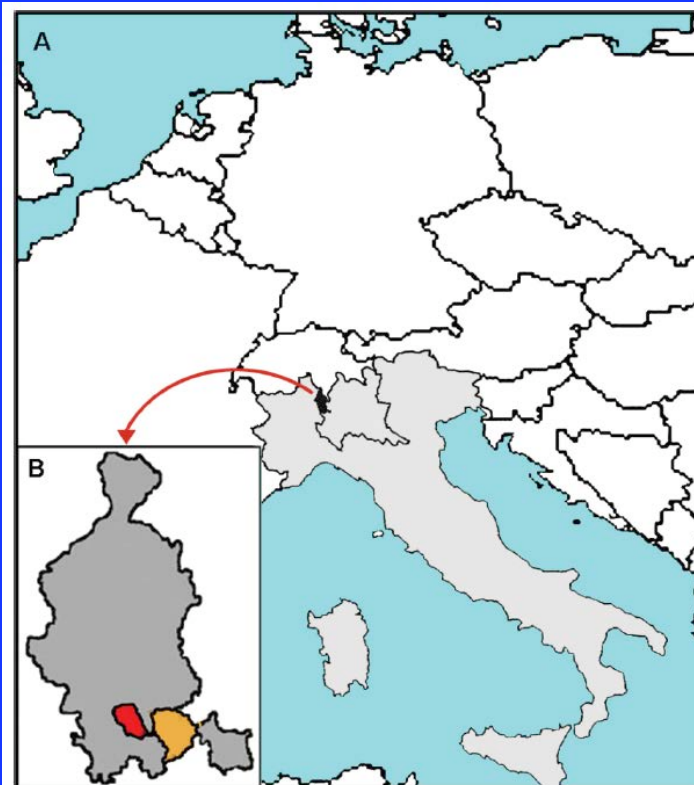


Figure 1 Map of the study area of the Monzino 80-plus Study:
 A. Europe, Italy (in grey) and, within the borders of the Lombardy region, the province of Varese (in black). B. The study area: the province of Varese (in grey) and the area of the eight municipalities initially investigated: in red Gallarate and in orange the seven municipalities of the lower Olona valley (Fagnano Olona, Gorla Maggiore, Solbiate Olona, Gorla Minore, Olgiate Olona, Marnate, and Castellanza)

Lucca et al. 2011

Baseline demographic characteristics of the resident population, the population included in the analyses, and the elderly individuals without available information

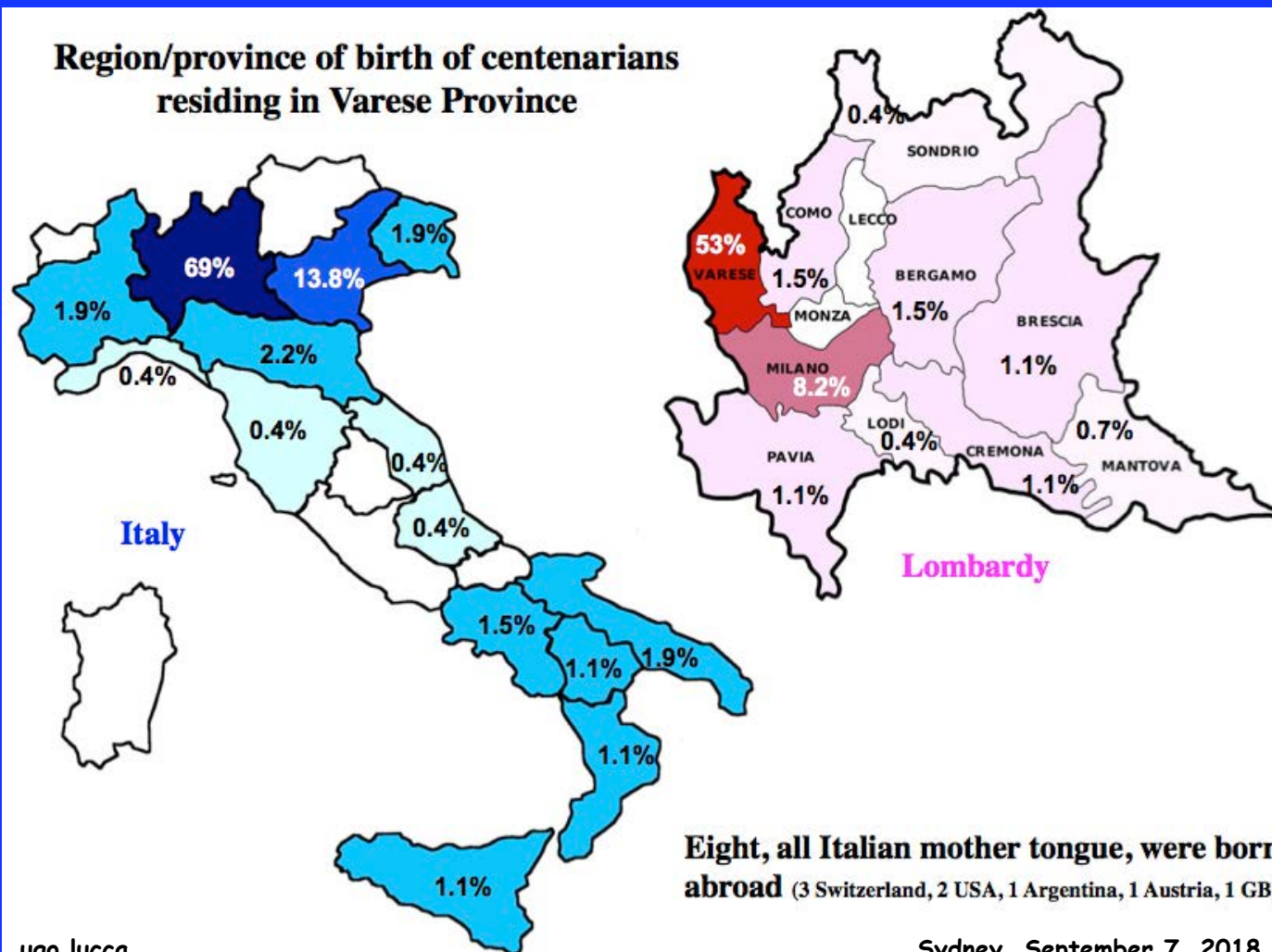
	Residents	Individuals with information	
		available	not available
All, n (%)	2,805 (100)	2,506 (89.3)	299 (10.7)
Men, n (%)	766 (27.3)	685 (27.3)	81 (27.1)
Women, n (%)	2,039 (72.7)	1,821 (72.7)	218 (72.9)
Mean age at prevalence day, all (SD)	89.4 (6.1)	87.7 (6.1)	86.9 (6.1)*
Age groups †, no. (row %; column %):			
80-84	820 (100; 29.2)	690 (84.1; 27.5)	130 (15.6; 43.5)
85-89	737 (100; 26.3)	654 (88.7; 26.1)	83 (11.3; 27.8)
90-94	705 (100; 25.1)	639 (90.6; 25.5)	66 (9.4; 22.1)
95-99	260 (100; 9.3)	255 (98.1; 10.2)	5 (1.9; 1.7)
100+	283 (100; 10.1)	268 (94.7; 10.7)	15 (5.3; 5.0)

*Approximate estimates of the SD.

†Age at interview for resident population and individuals with information; age at prevalence day for individuals without information.

Lucca et al. 2015, revised

Region/province of birth of centenarians residing in Varese Province

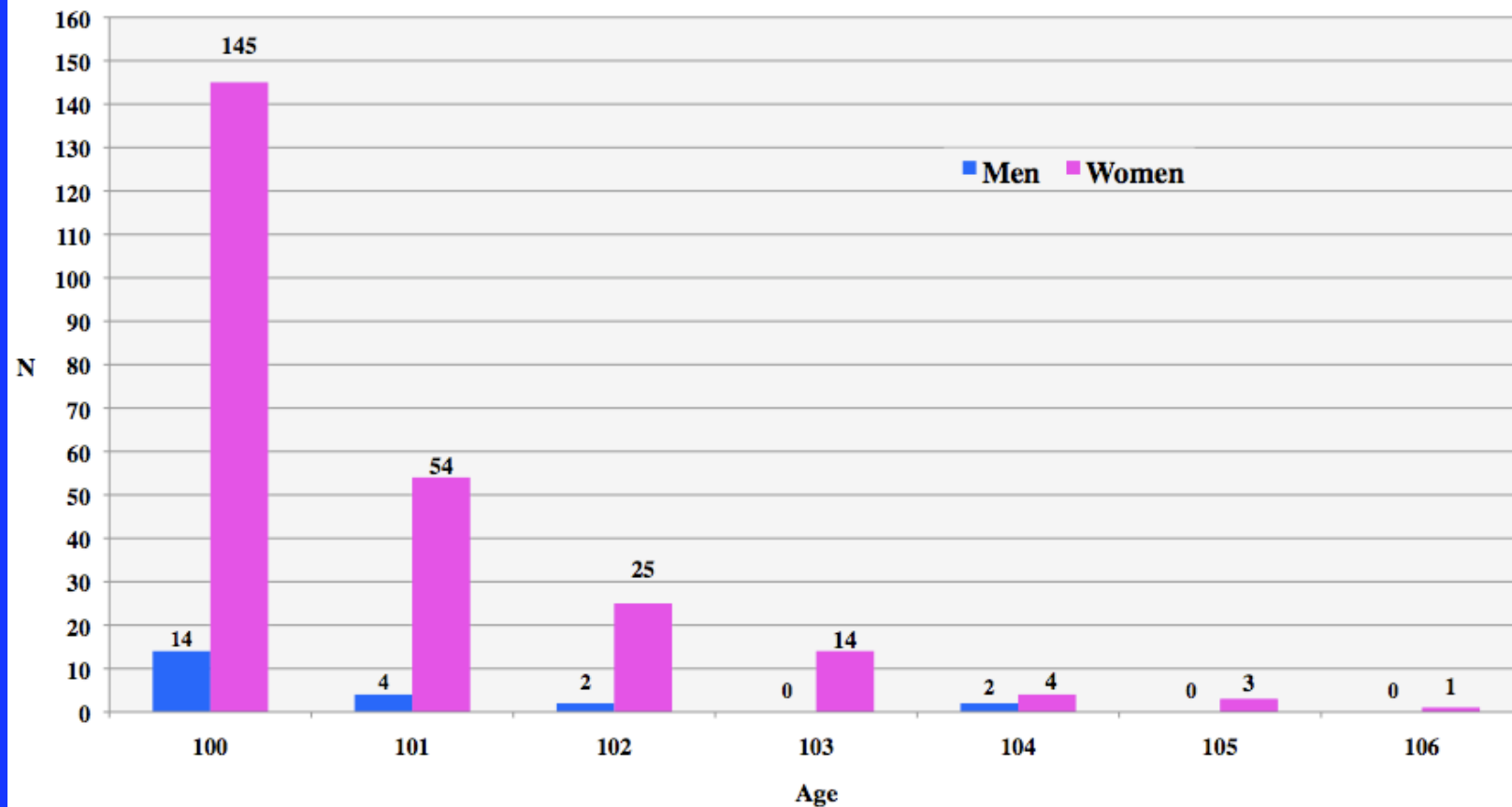


Eight, all Italian mother tongue, were born abroad (3 Switzerland, 2 USA, 1 Argentina, 1 Austria, 1 GB)

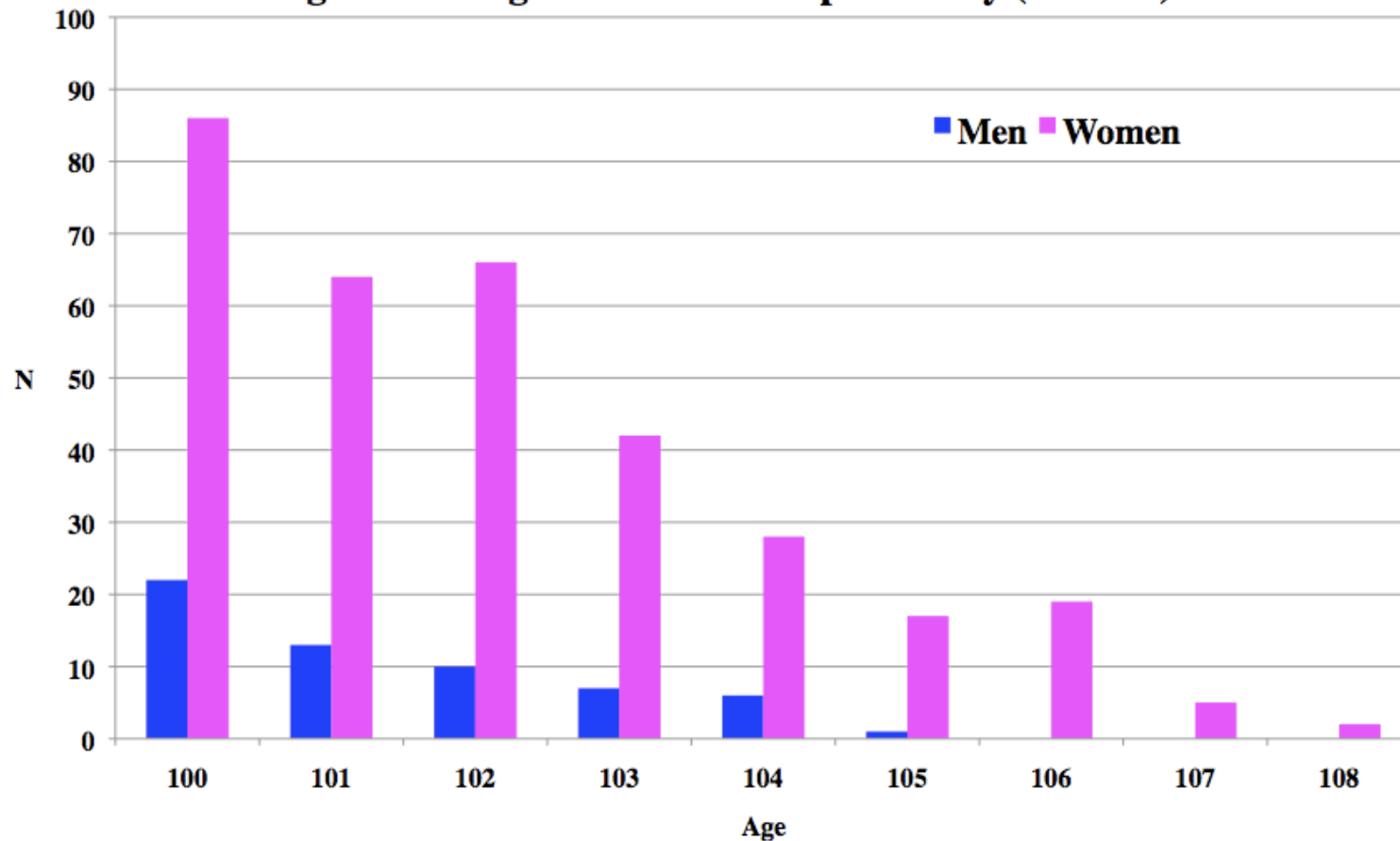
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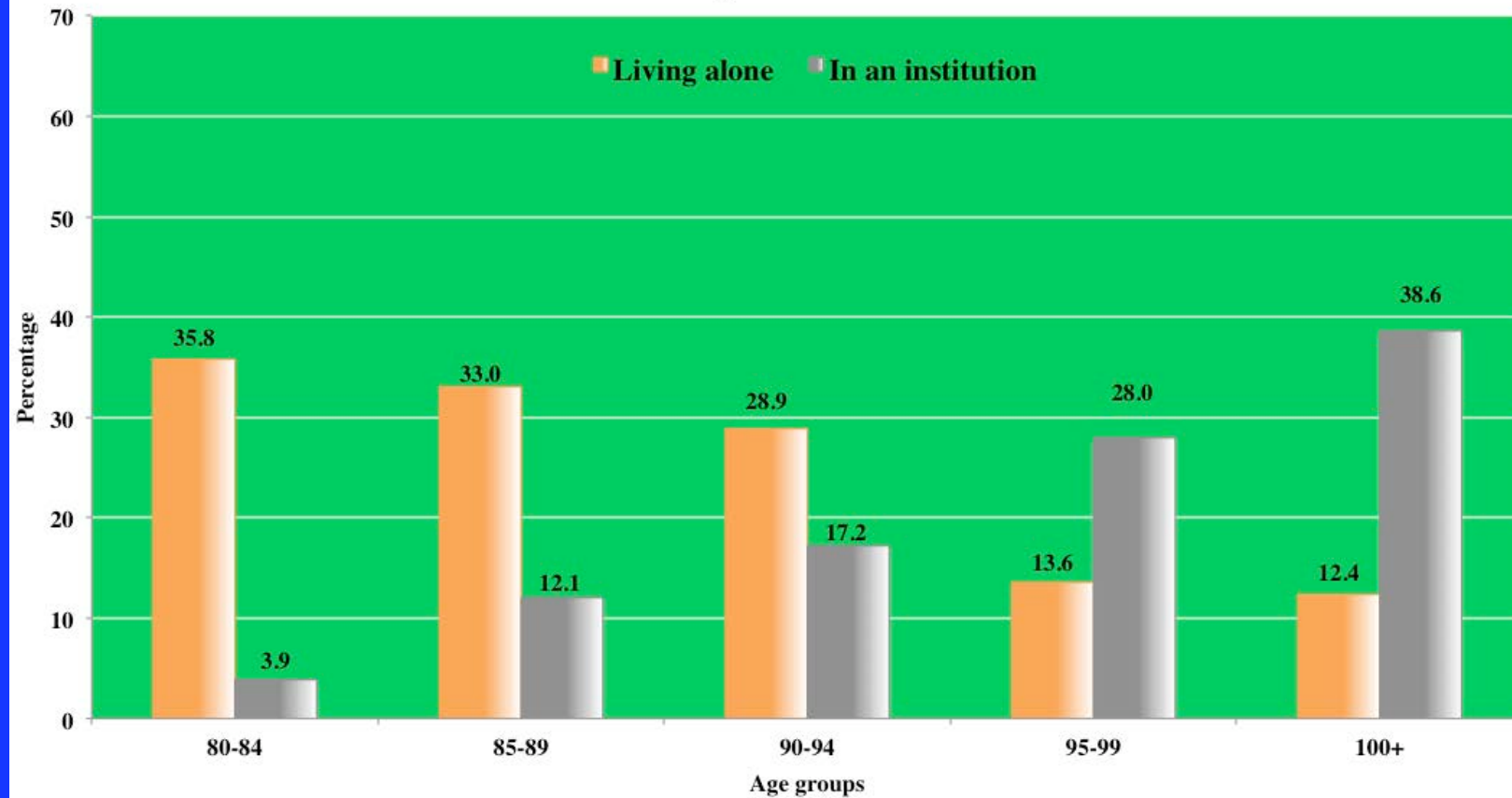
**Number of centenarians by sex and age at first visit
included in the Monzino 80-plus Study (N = 268)**



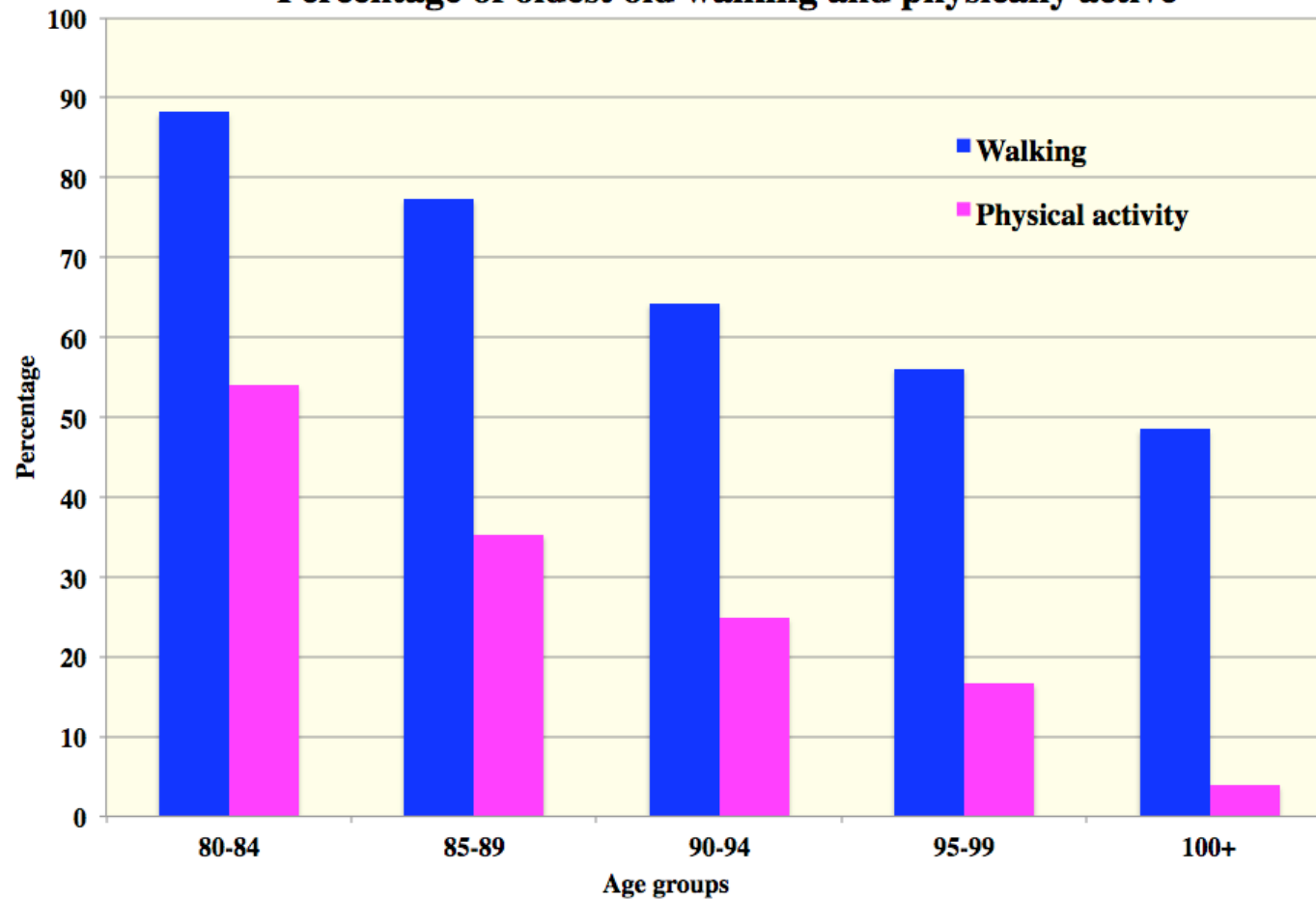
**Number of centenarians by sex and age at last visit or death
investigated during the Monzino 80-plus Study (N = 388)**



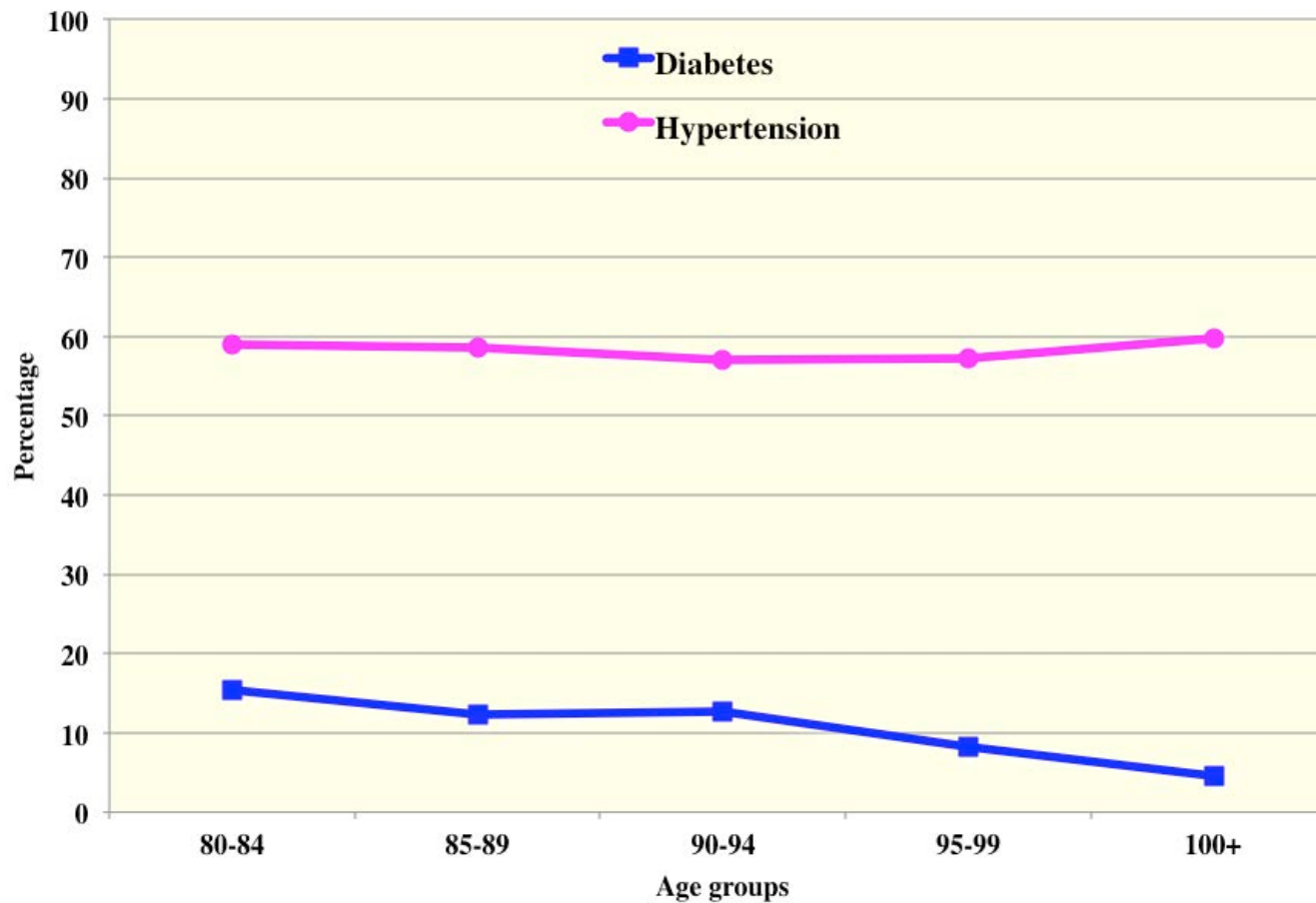
Oldest old living alone and in institutions



Percentage of oldest old walking and physically active



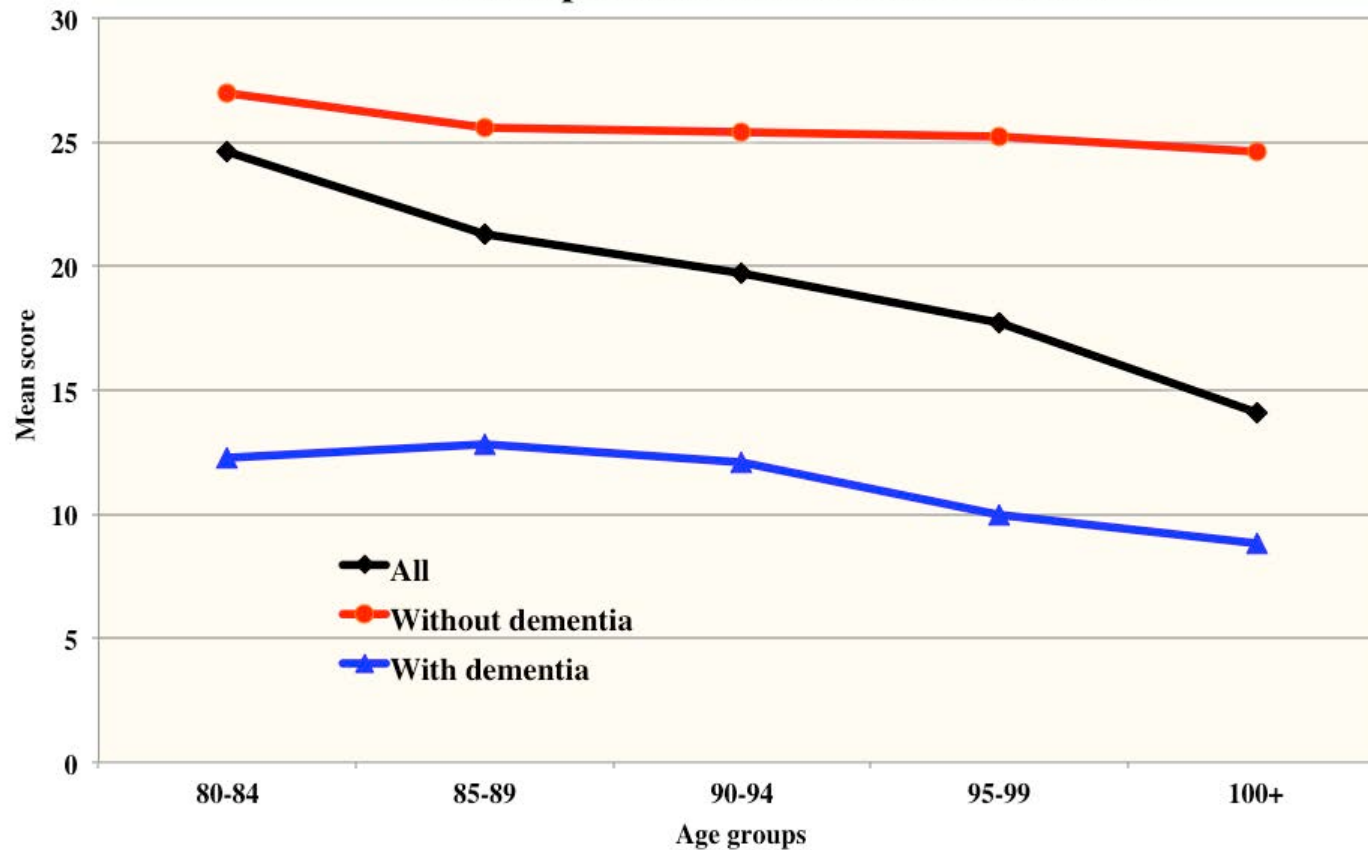
Percentage of oldest old with hypertension and diabetes



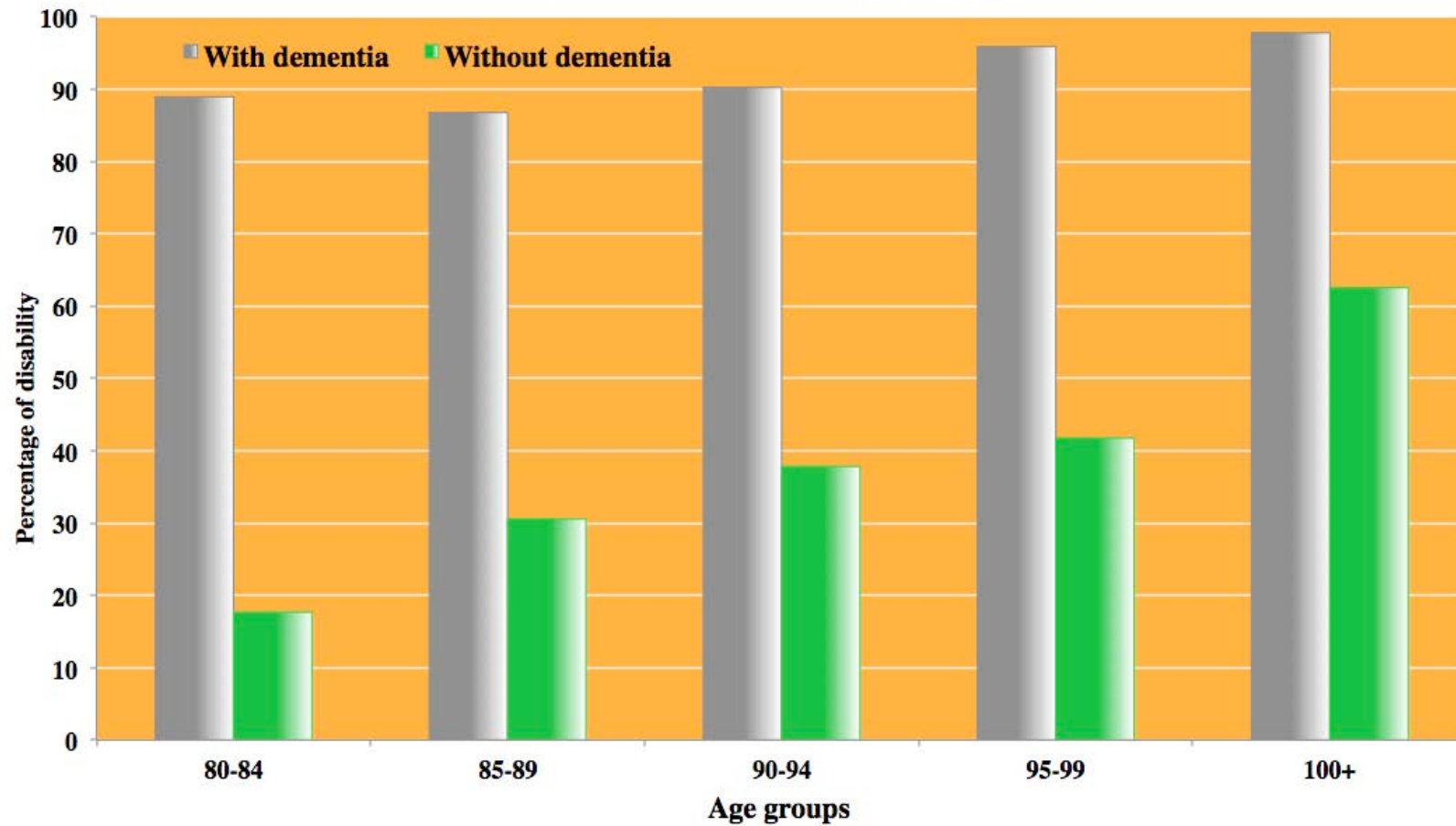
Main clinical features of the population with available information (N ≤ 2506) by age group at first visit

	80-84	85-89	90-94	95-99	100+
Hospital admission, previous year, %	34.7	30.8	26.9	25.1	15.8
Drug use, %	85.4	90.6	91.2	95.6	91.8
Mean number of drugs per users, (SD)	2.7 (2.0)	3.2 (2.2)	3.2 (2.1)	3.6 (2.0)	3.3 (2.0)

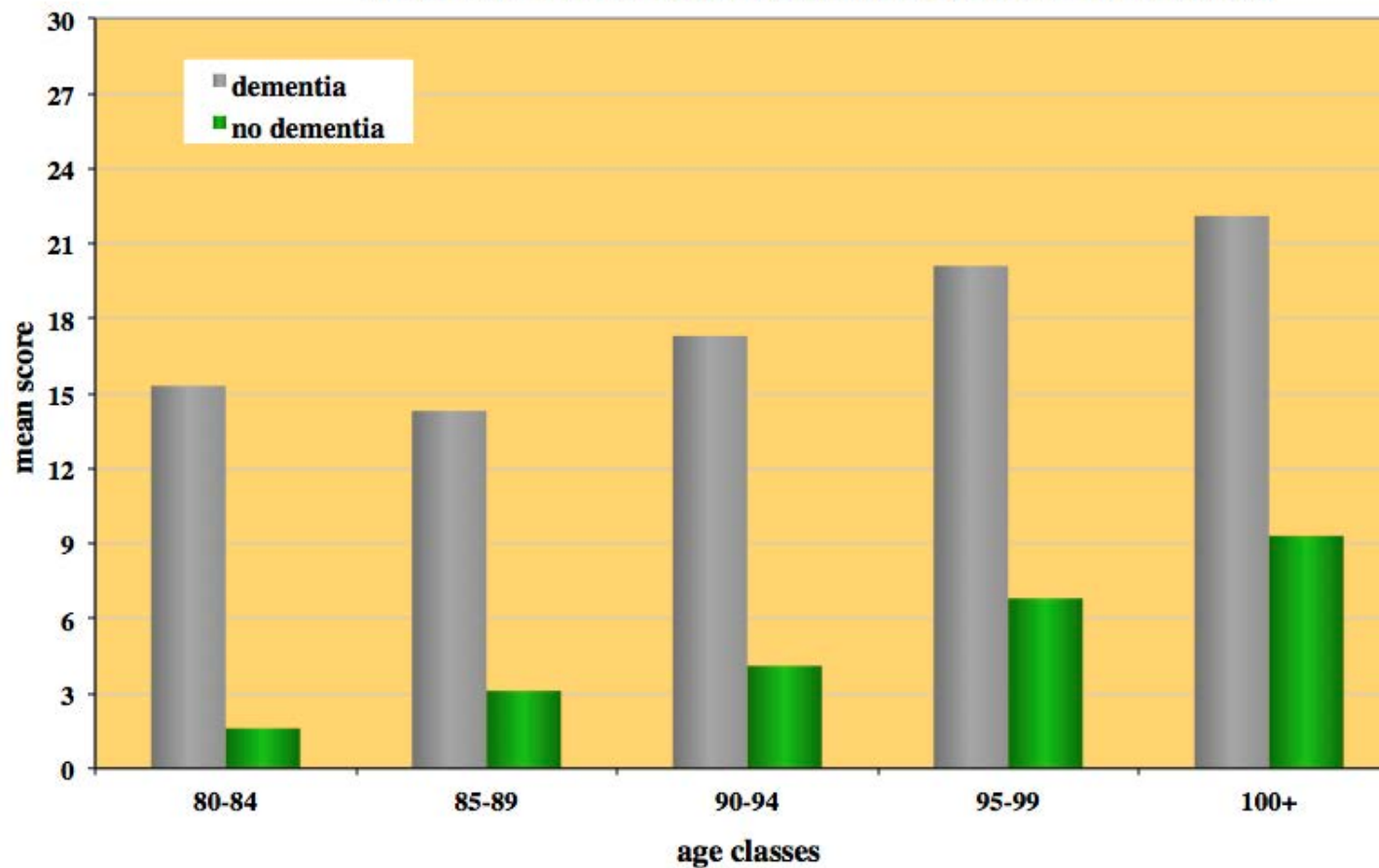
**Mean MMSE score by age in whole population
and in persons without and with dementia**



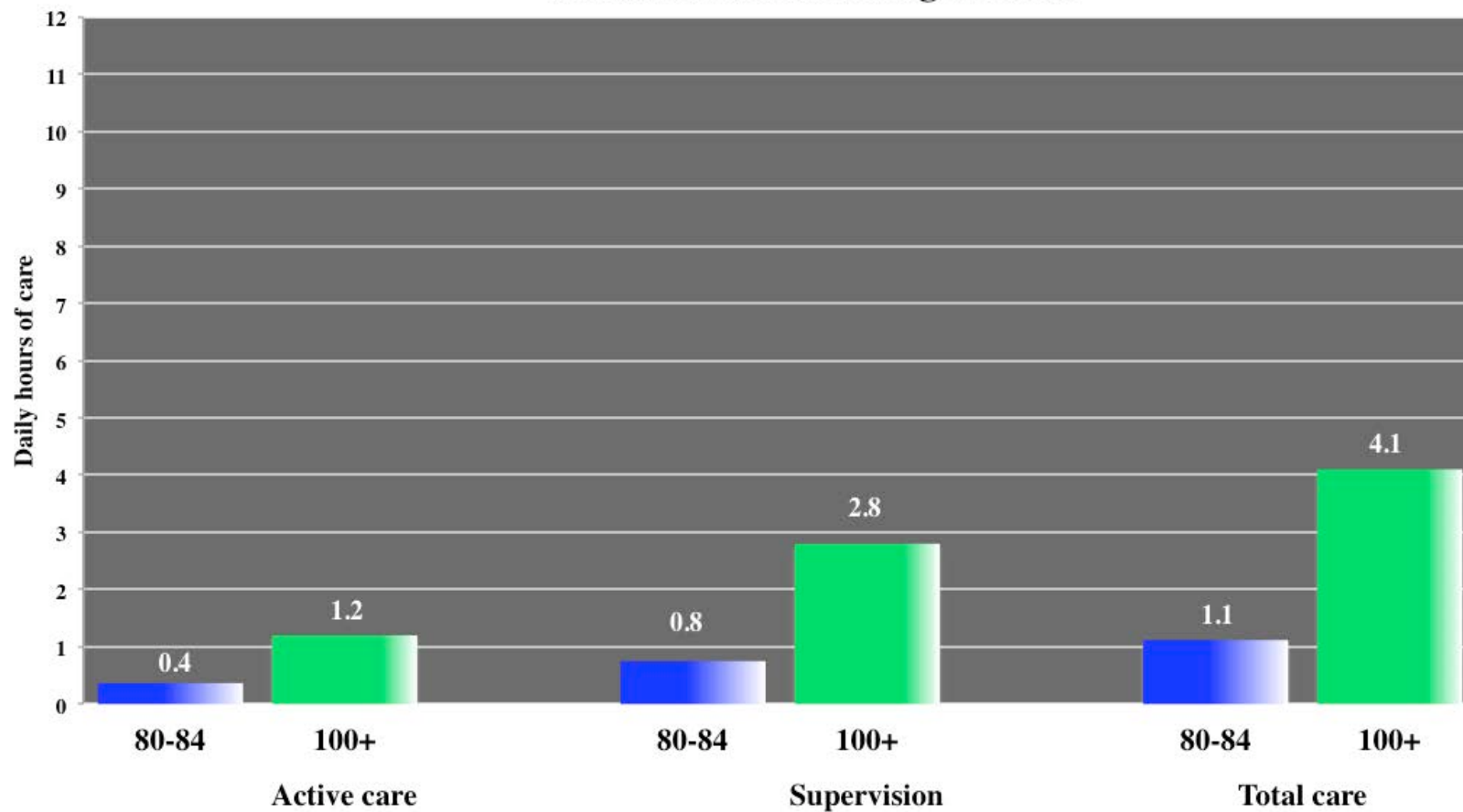
Percentage of IADL disability by age group



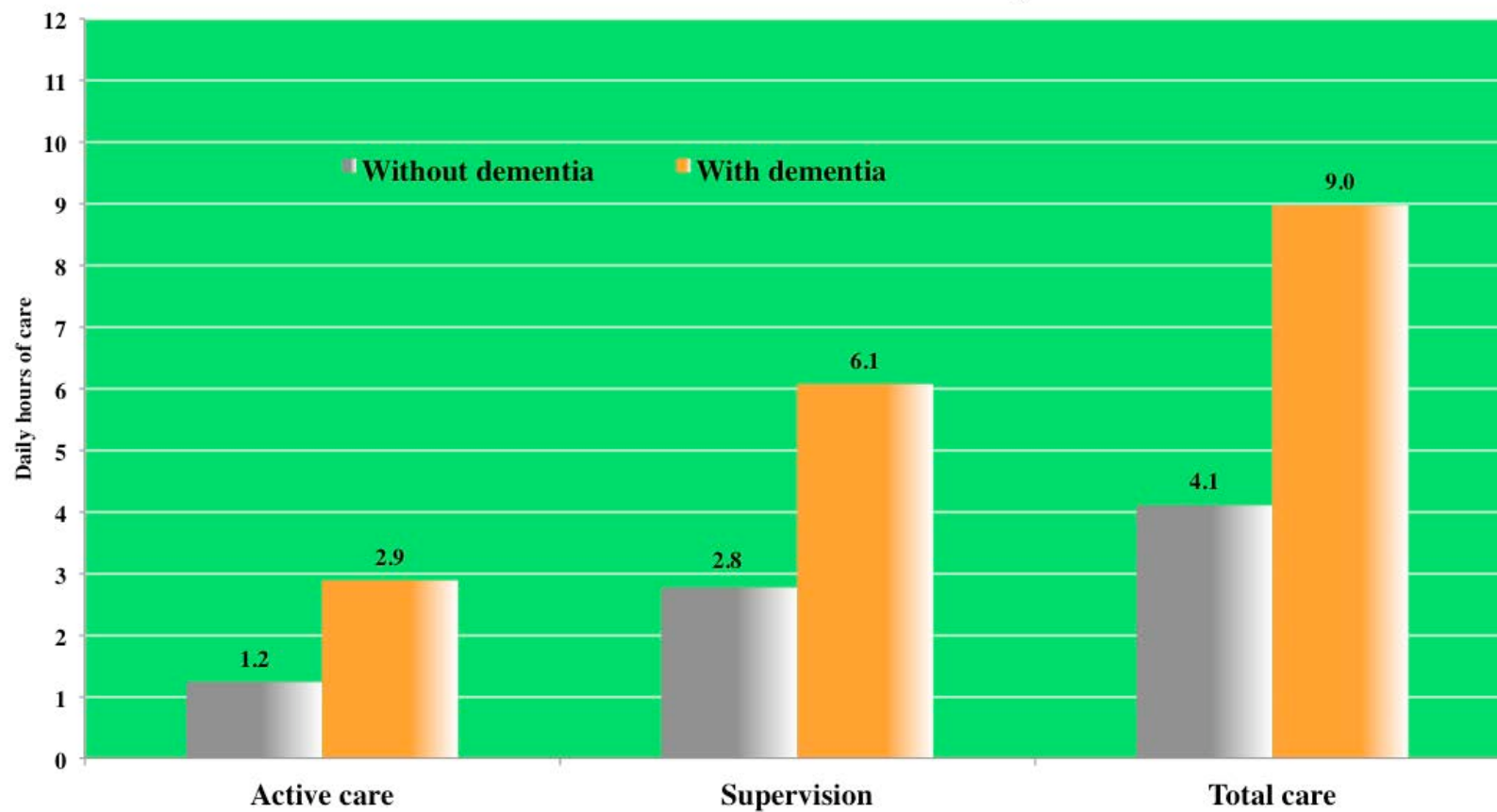
**Mean score on basic activities of daily living (SBI-ADL: score range 0-30 [worst])
by age class in the elderly population (The Monzino 80-plus Study)**

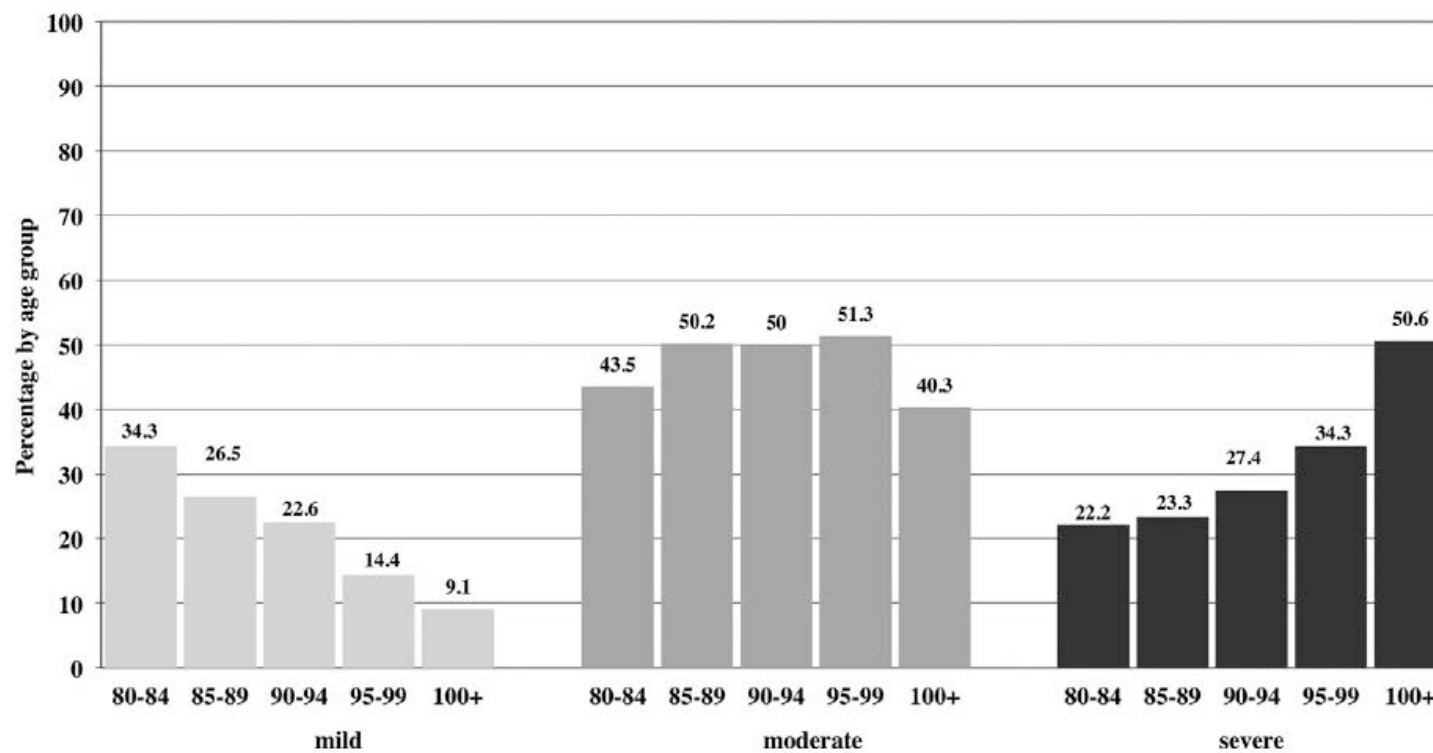


Mean number of daily hours of care provided to oldest old without dementia living at home



Mean number of daily hours of care provided to centenarians without and with dementia living at home

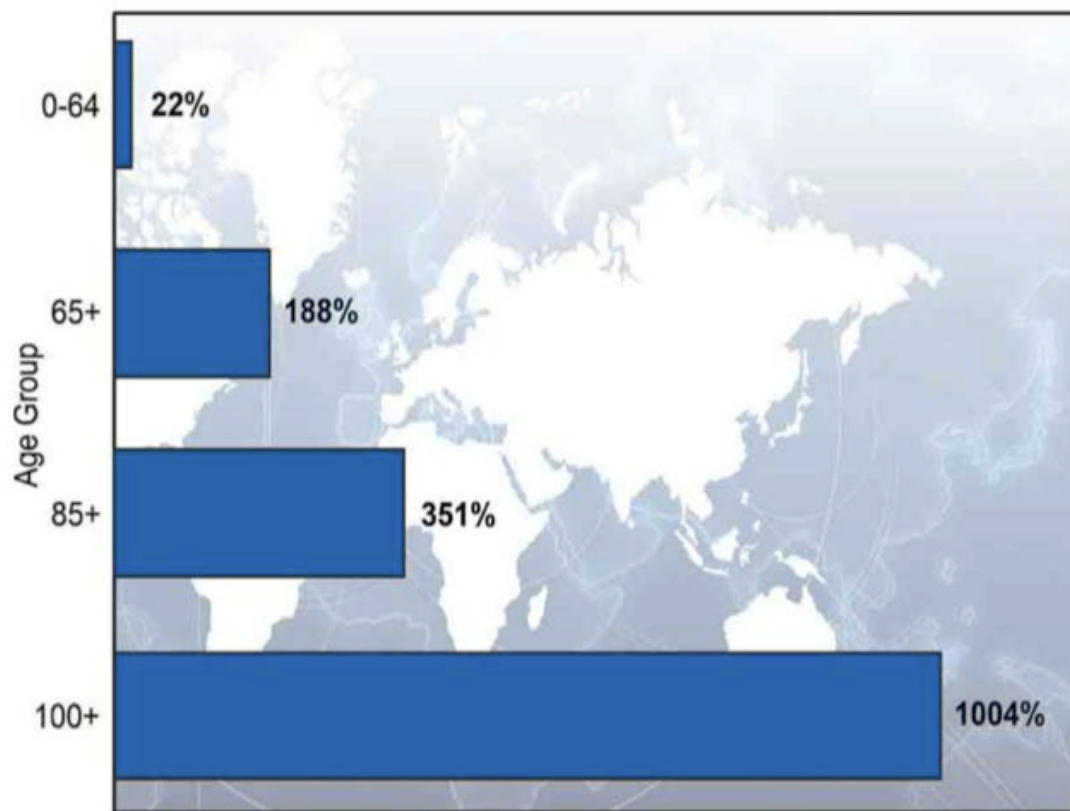




Supplementary Fig. 2. Percentage of mild, moderate, and severe dementia in each age group in the Monzino 80-plus Study.

Lucca et al. 2015

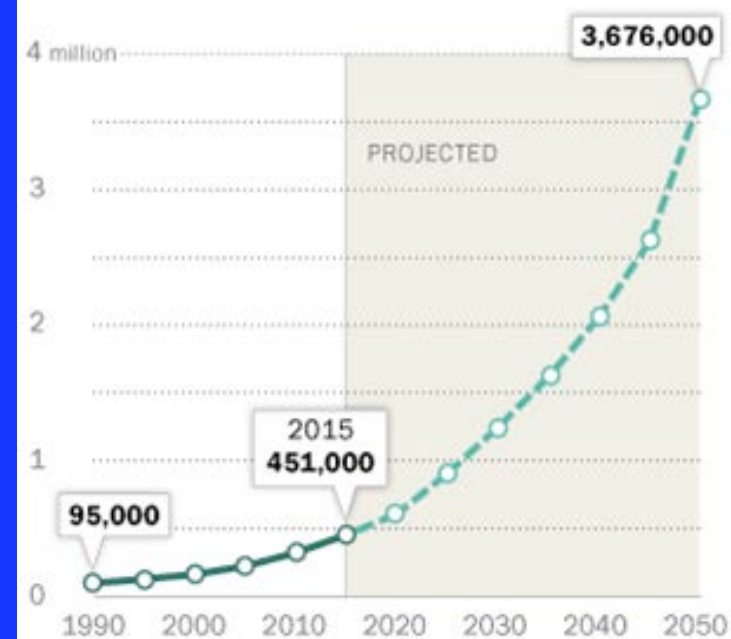
Percentage Change in the World's Population by Age: 2010-2050



Source: United Nations, *World Population Prospects: The 2010 Revision*.

The world's centenarian population projected to grow rapidly

Number of persons ages 100 and older



Source: United Nations, Department of Economic and Social Affairs, "World Population Prospects: 2015 Revision"

Do men and women follow different trajectories to reach extreme longevity?

C. Franceschi^{1,2}, L. Motta³, S. Valensin¹, R. Rapisarda³, A. Franzone³, M. Berardelli³, M. Motta³, D. Monti⁴, M. Bonafè¹, L. Ferrucci², L. Deiana⁵, G.M. Pes⁵, C. Carru⁵, M.S. Desole⁵, C. Barbi¹, G. Sartoni¹, C. Gemelli¹, F. Lescai¹, F. Olivieri², F. Marchegiani², M. Cardelli², L. Cavallone², P. Guerresi⁶, A. Cossarizza⁷, L. Troiano⁶, G. Pini², P. Sansoni⁸, G. Passeri⁸, R. Lisa², L. Spazzafumo², L. Amadio², S. Giunta², R. Stecconi², R. Morresi², C. Viticchi², R. Mattace⁹, G. De Benedictis¹⁰, G. Baggio¹¹, and the Italian Multicenter Study on Centenarians (IMUSCE)*

Table 2 - The health status of 382 centenarians (classification criteria are reported in Table 1).

Category*	Centenarians (total number)	Females	Males	% (total)
GOOD HEALTH STATUS	85	58	27	22.2
INTERMEDIATE HEALTH STATUS	113	92	21	29.6
BAD HEALTH STATUS	159	139	20	41.6
TOTAL	357	289	68	93.4

"Are older people more likely to become centenarians because they are in better health or because it is much easier to survive today? Although it is very difficult to answer this question, there is evidence in favour of a strong decline in the mortality selection." Despite a "trend showing that the higher the life expectancy, the higher the healthy life expectancy", in low mortality countries "the fast accumulation of centenarians seems to be accompanied by a parallel decline in their functional health status."

Robine, Saito and Jagger 2009

The future of centenarian studies

From unveiling the secret to live to 100, to identifying the determinants to reach 100 ... in good health.

The idea is to die young as late as possible
Ashley Montagu



In the province of Varese (Cunardo) in the early 1900s

