



Trajectories of cognitive impairment and dementia in Chilean older people

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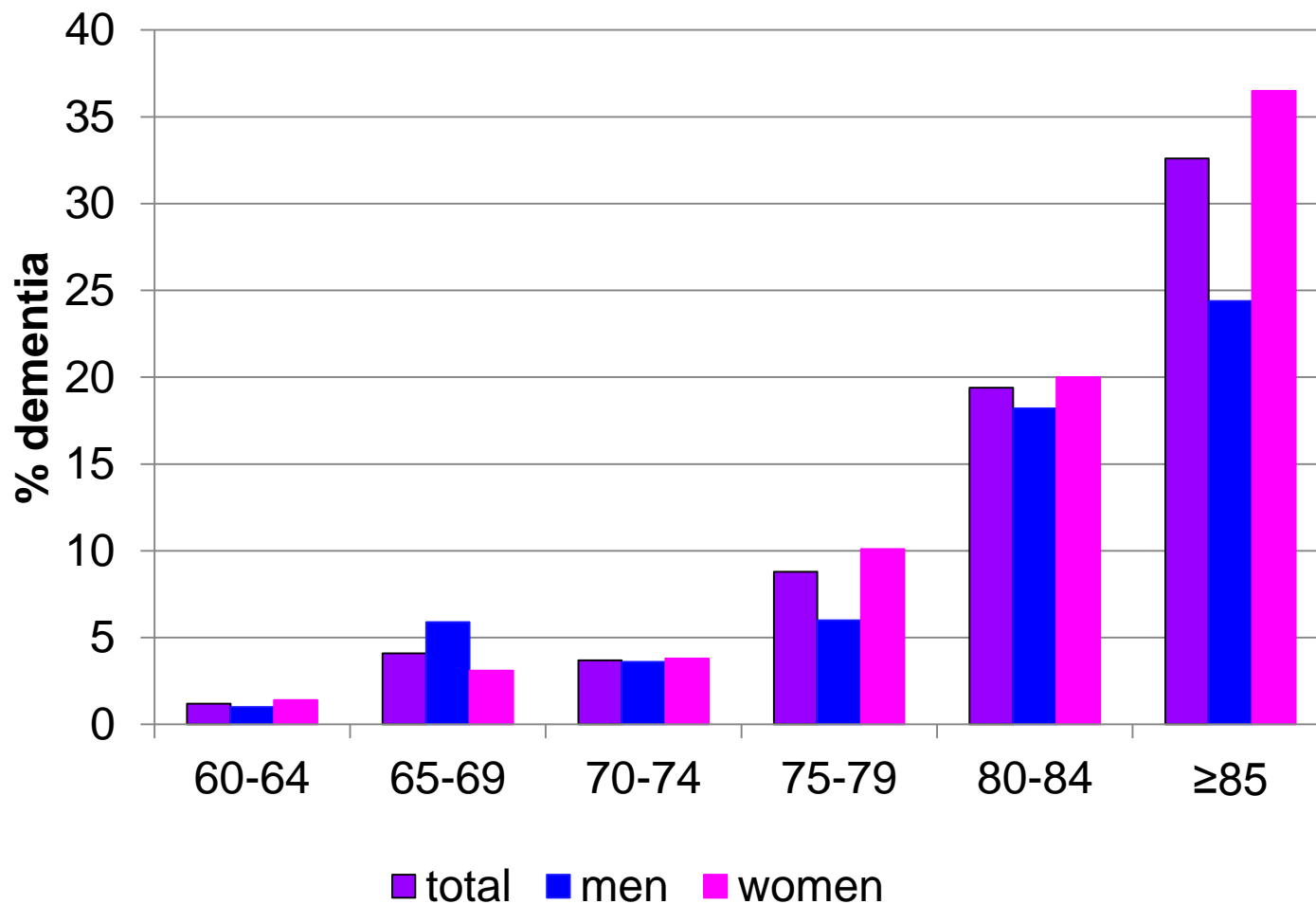
Background

- Chile is among the 27 countries with LEB ≥ 80 years

- | LEB 2015 | | | HALE 2015 |
|----------|-------|-------|-----------|
| Men | Women | Total | |
| 77.4 | 83,4 | 80.5 | 70.4 |

- The rapidly aging population lead to increasing chronic and degenerative diseases, among which probably the most devastating is dementia, that is becoming a major public health problem in the country.

Frequency (%) of dementia according groups of age and gender. Chile 2010



Life expectancy at birth and estimated number of dementias Chile 2010-2050

■ Dement Neuropsychol 2014 December;8(4):317-322

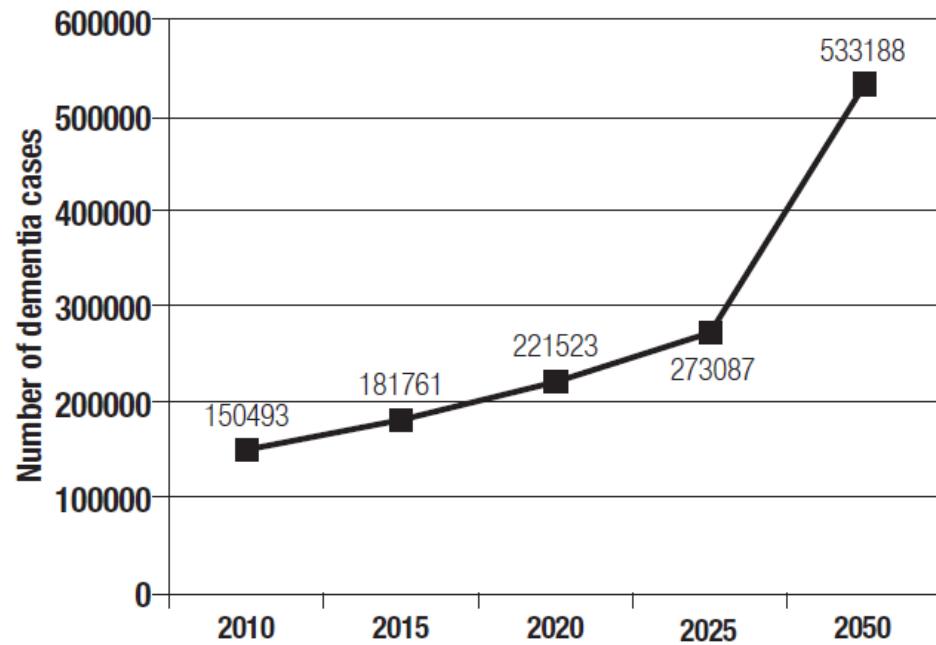
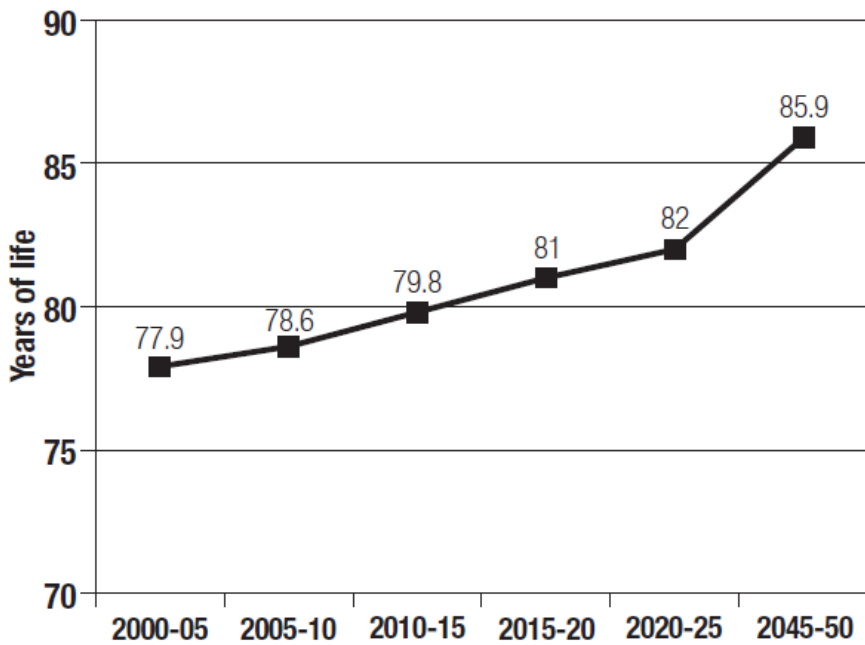
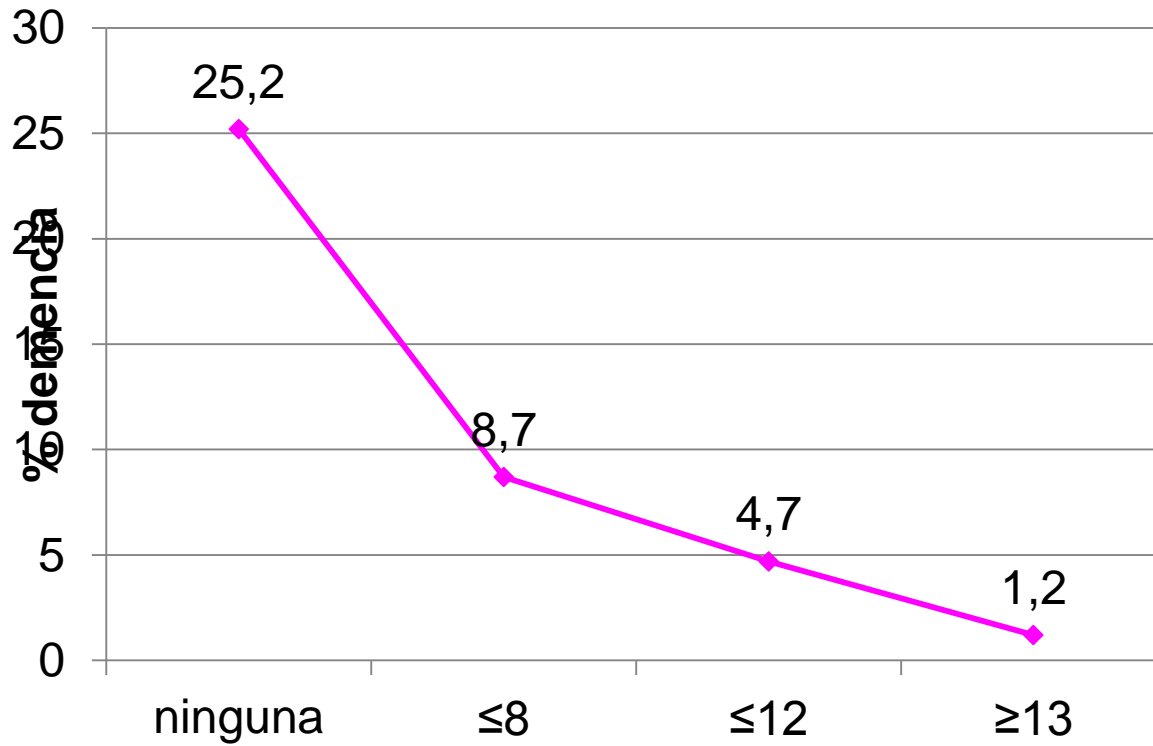


Figure 2. Life expectancy at birth and estimated number of dementia cases. Chile 2002-2050

Fraction of dependence attributable to dementia by groups of age

Age	60-69 %	70-79 %	≥80 %	Total %
Dementia	2,3	6,3	25,5	7,1
Dependence	11,7	19,6	49,4	21,5
Attributable fraction	19,7	32,4	51,6	30,0

4. Frequency (%) of dementia according years of education



Objective

- To study the trajectories of dementia and cognitive impairment in Chilean older people

Methods I

- Follow up of SABE and ALEXANDROS cohorts of community dwelling people 60y and older living in Santiago/Chile.
- The SABE cohort includes 1173 subjects born before 1940 with baseline data in 2000.
- The Alexandros cohort includes 853 subjects born between 1940 and 1948 with baseline data in 2005.
- At baseline 2026 subjects had complete data and 1903 were free of dementia including 86 people MCI. At June 30, 2015, information from 1588 participants was available, 229 were lost to follow-up and 86 refused participation. From the 1903 subjects 452 were died.

Variables

All subjects underwent a face to face structured interview including questions on socioeconomic and demographic factors, history of chronic diseases, smoking habits, psychosocial factors, ADL, IADL and mobility limitations.

Dementia was defined with a test validated for Chile consisting in a score <22 in the MMSE and a score >5 in the Pfeffer Activities Questionnaire combination giving a sensitivity of 94.4% and a specificity of 83.3% The neuropsychological and clinical confirmation of the diagnosis in a subsample of 78 participants showed a positive agreement of 100% and a negative agreement of 97%.

Depression was evaluated with the Geriatric depression Scale (GDS15) with a cut point >4 for depressive symptoms

Base line Socio-demographic and health characteristics of the study sample by sex

	Men N (%) 669 (33)	Women N % 1357 (67)	Total N % 2026 (100)
Mean age ± SD (95%CI)	65.9 ± 3.34	66.0±3.2	66.0± 3.3
Years of education %(95%CI)			
0-7	58.8	61.7	60.8
≥8	41.2	38.3	39.2
Living alone	9.3	8.4	8.7
IMC Kg/m2 %(95%CI)*			
<20	2.0	1.3	1.5
20-24.9	21.0	16.1	17.6
25-29.9	50.5	44.7	46.5
≥30	26.5	37.8	34.4
Never smoker	37.4	58.0	51.4
Former smoker	45.4	29.0	34.1
Current smoker	17.2	13.0	13.6
Diabetes % (95%CI)	17.5	15.9	16.5
Hypertension %(95%CI)	55.8	42.5	46.5
Depression% (95%CI)	26.5	31.4	29.6

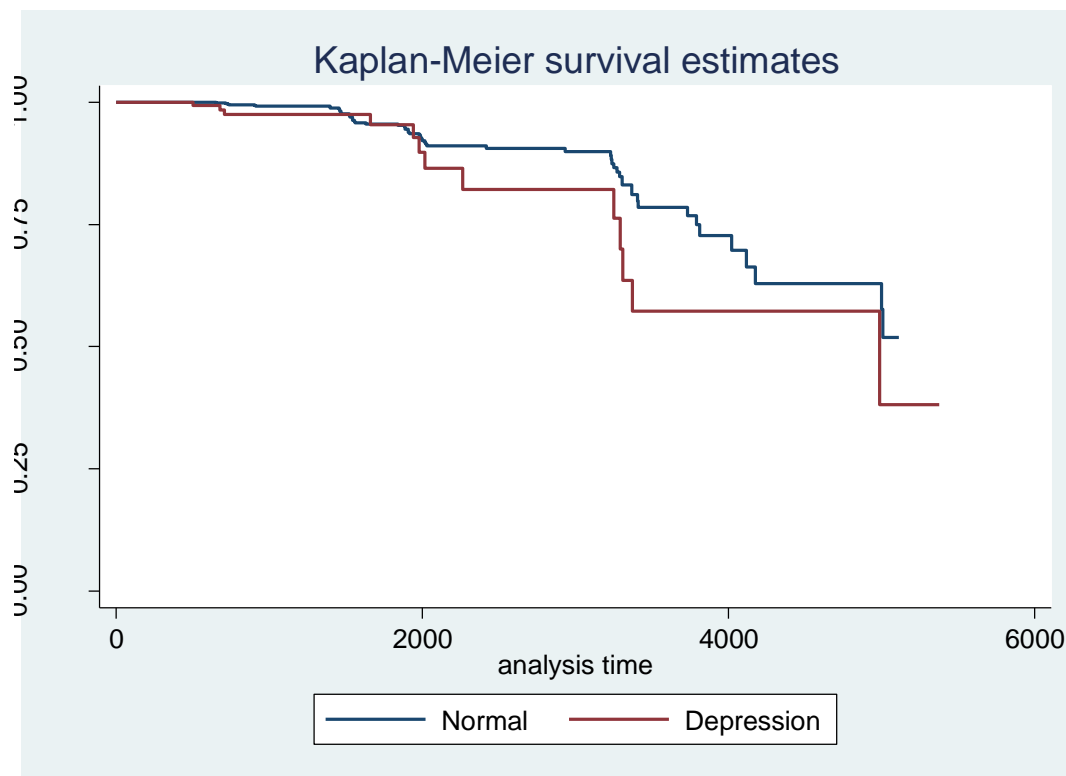
Results

- After 7406 person-years of follow-up a total of 106 cases of dementia were identified.
- The prevalence of dementia at baseline was 6.1% (95%CI: 5.0-7.1) and the incidence rate was 1.43 (95%CI 1.17-1.73) 100person/year

Cox proportional hazards regression model for the incidence of dementia

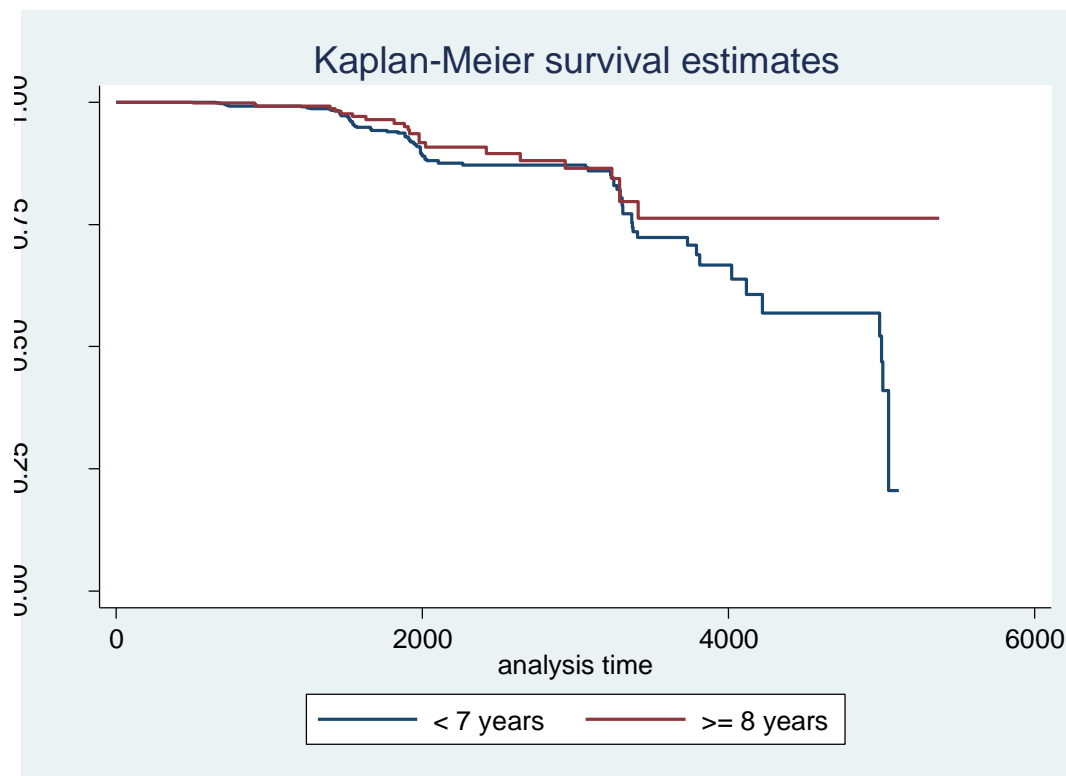
Dementia	HR	95%CI	p
Age	1.04	1.02-1.07	<0.001
women	0.64	0.44-0.92	0.015
>8y education	0.58	0.38-0.91	0.023
Depression	3.32	1.47-7.49	0.001
Diabetes	1.38	0.88-2.18	0.165
Former smoker	1.19	0.61-2.33	0.618
Current smoker	1.26	0.66-2.41	0.477

Survival free of dementia in subjects with and without depression



$\chi^2(1) = 5.74$ $\text{Pr} > \chi^2 = 0.0166$

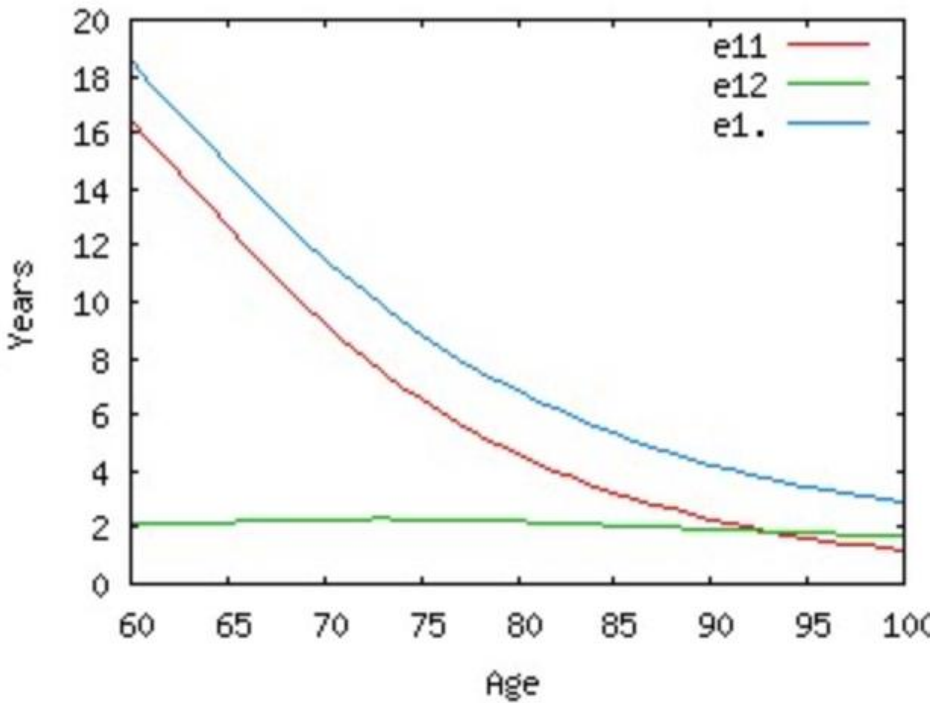
Survival free of dementia according years of education



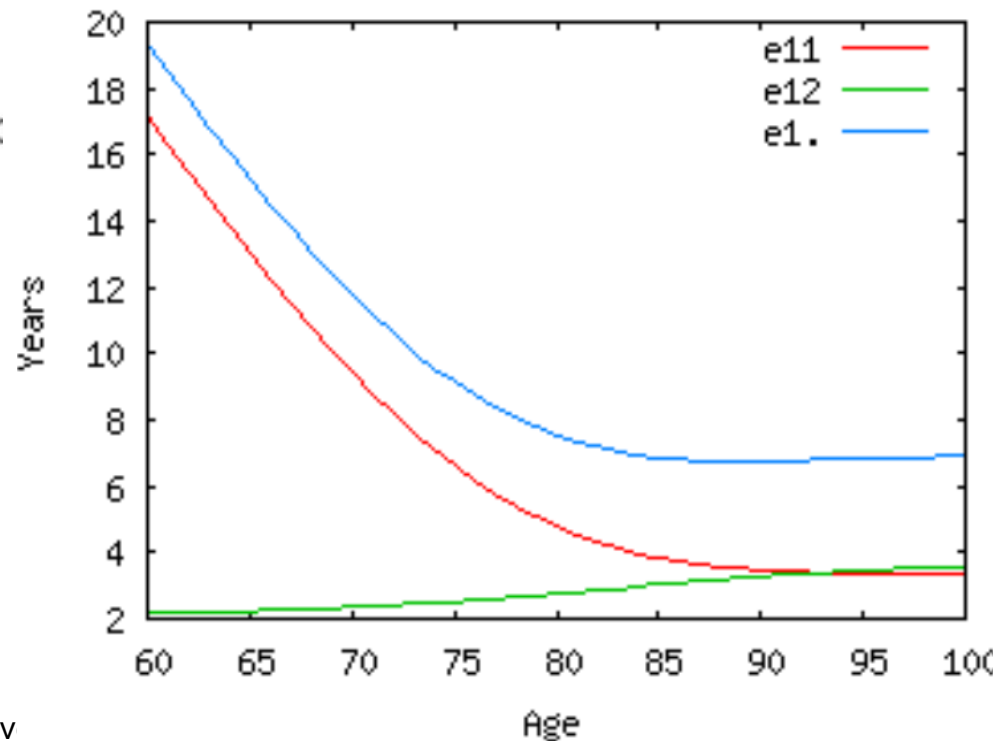
chi2(1) = 11.55

Pr>chi2 = 0.0007

Trajectories for MCI or normal to dementia or death

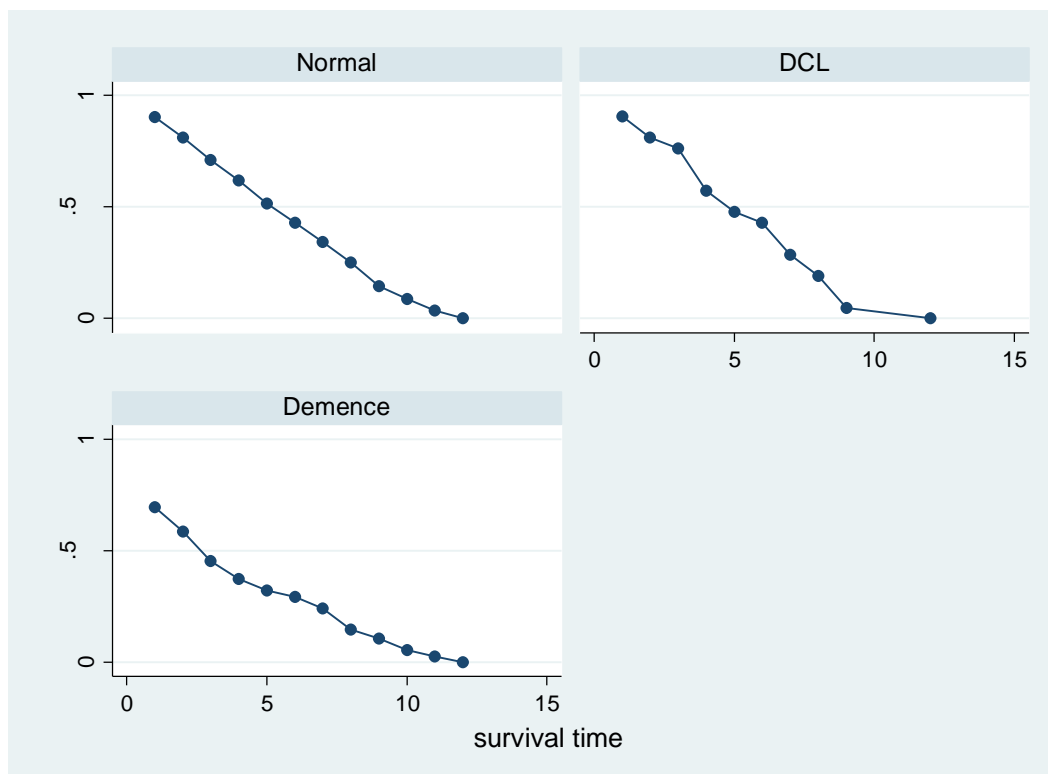


Trajectories for dementia or normal to dementia or death

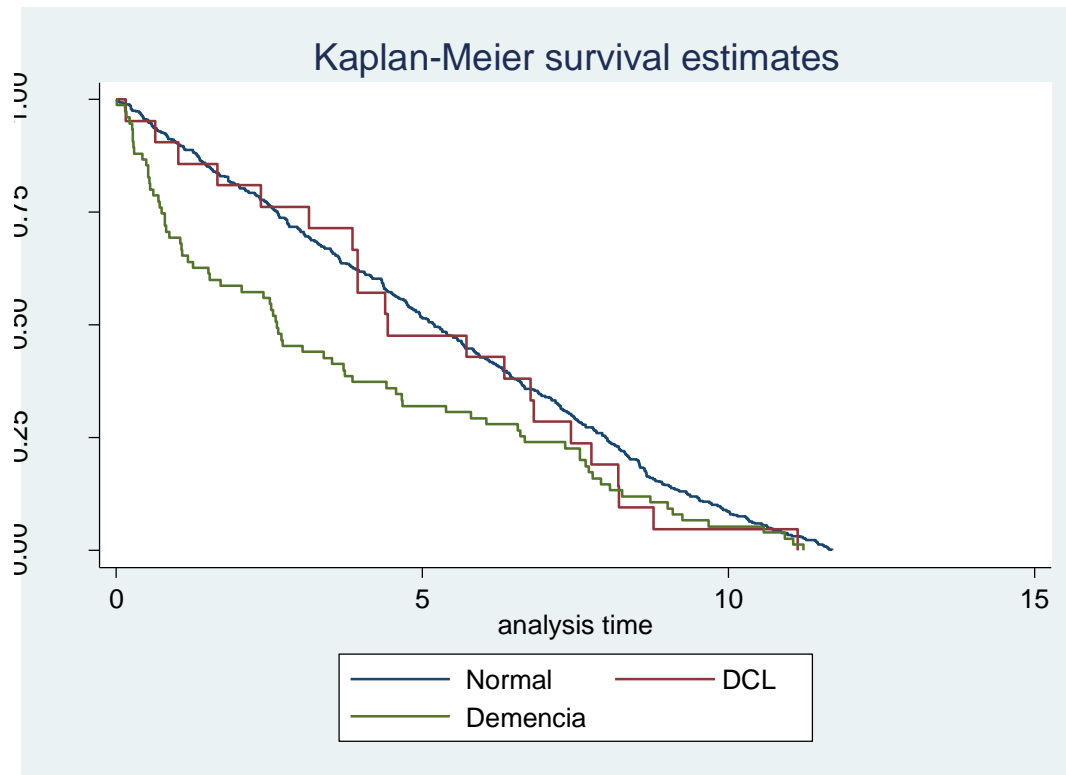


Survival

Probability of survival	dementia	MCI	Normal
5y follow up	0.2933	0.4276	0.4286
7y follow up	0.1467	0.1905	0.2506



Survival estimates for people with dementia, MCI o normal at baseline



Conclusion

- The growing number of people with dementia poses a huge challenge to our country.
- To know the trajectories of dementia and cognitive impairment to dementia is imperative to anticipate the demand for a particularly vulnerable group.
- Early detection and design of programmes aimed to support people with the disease and their caregivers, besides fighting against reversible risk factors while stimulating protector factors should be a priority for the public health policies in the country



See you in Santiago next year!!

