

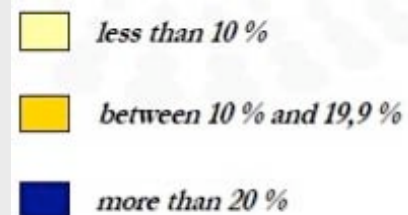
Prevention and Service Issues in Dementia

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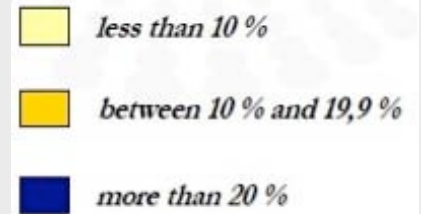
Percentage of the population aged 65 and older

2000

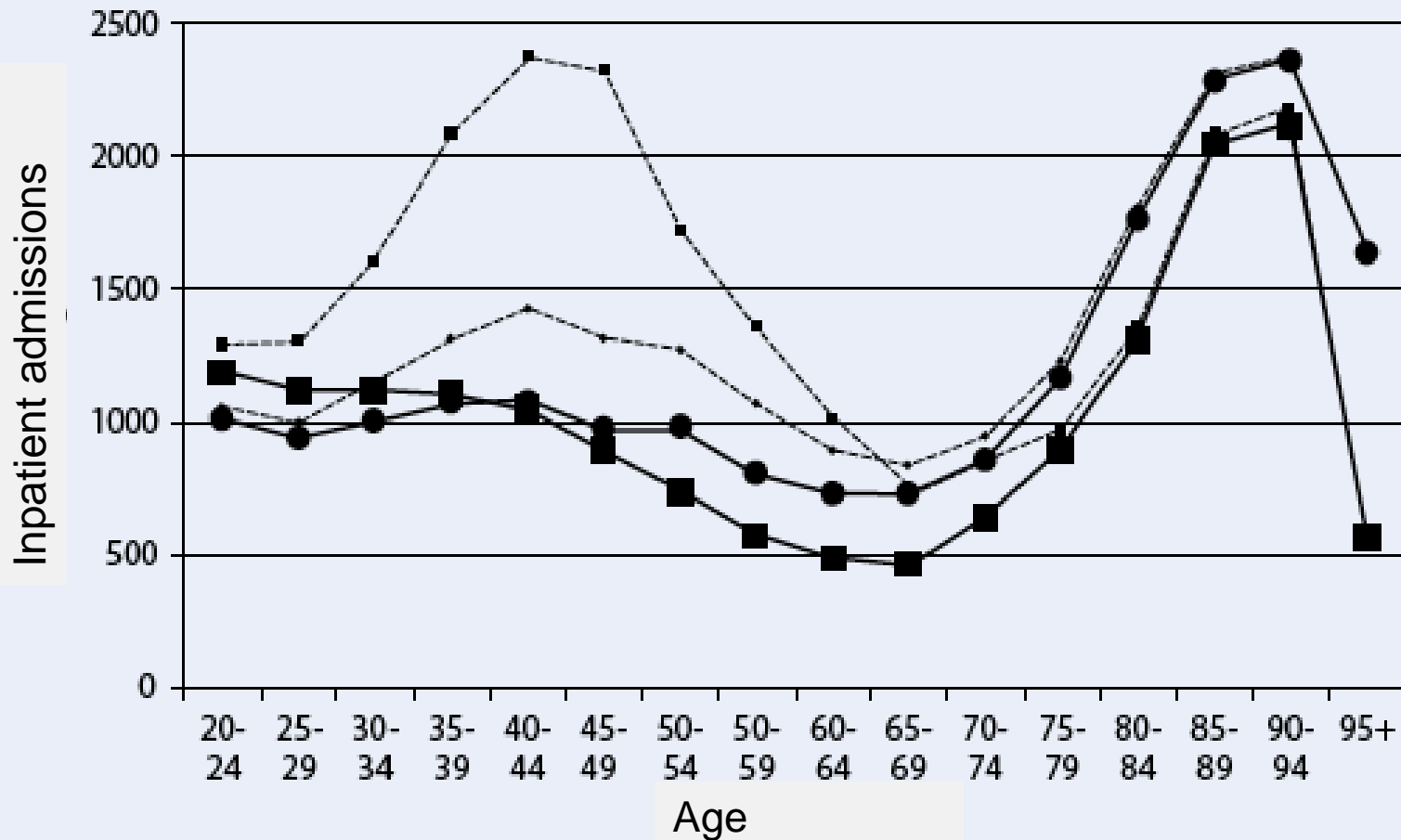


Percentage of the population aged 65 and older

2050

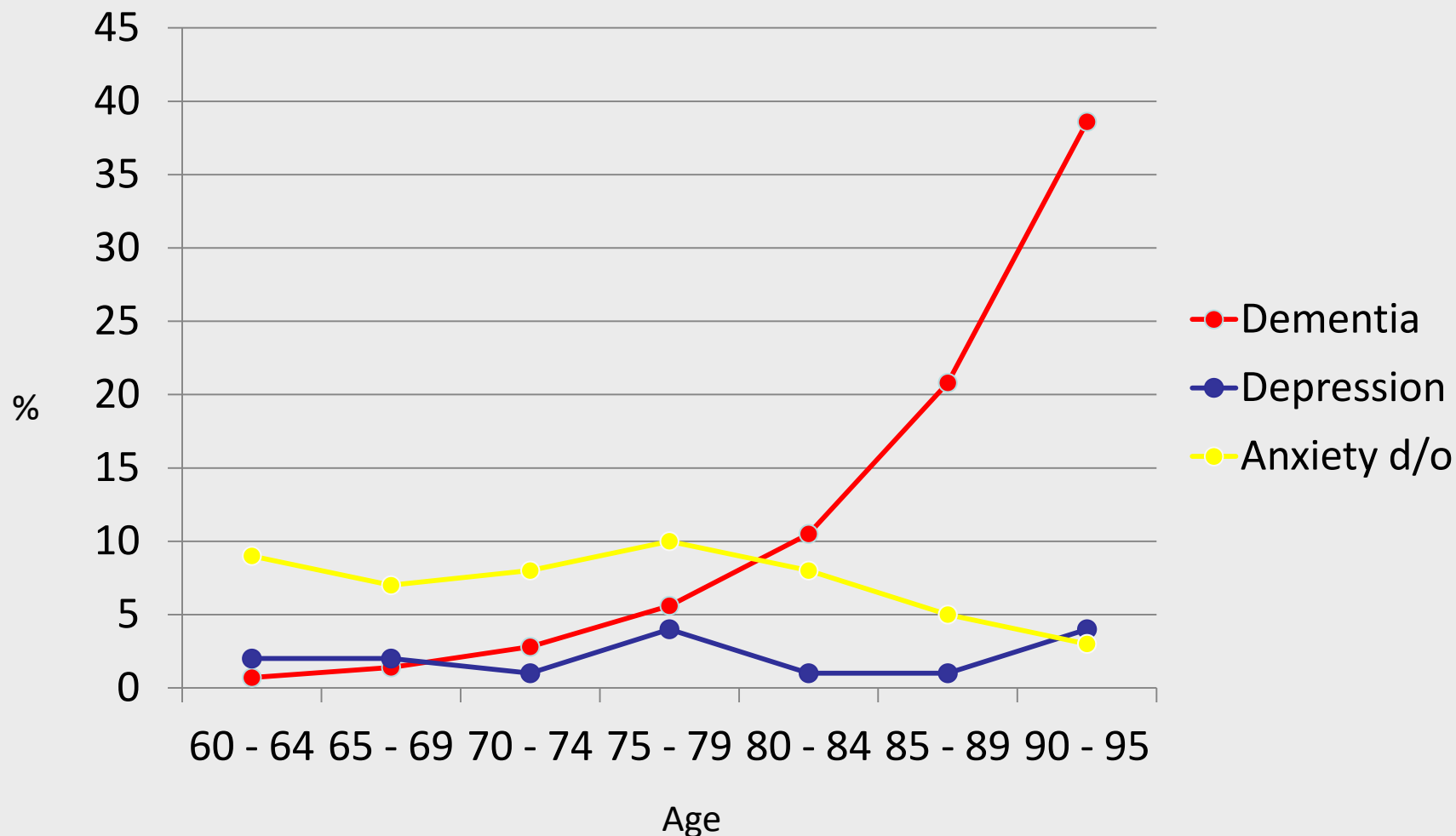


Number of psychiatric inpatient admissions in the city of Berlin as a function of age

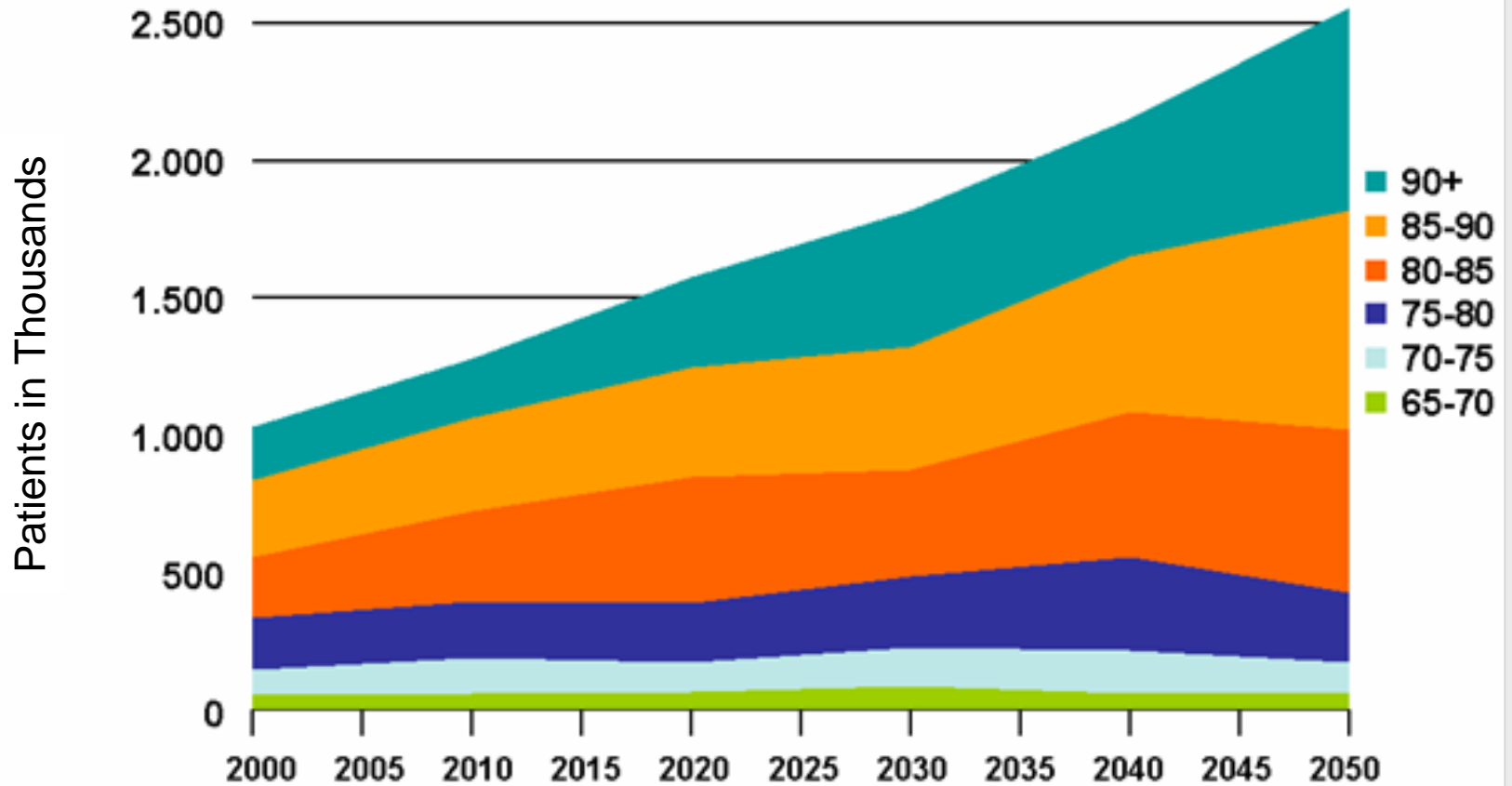


□ Men □ Women. *Dotted lines* include addiction d/o (ICD-10 V F1).

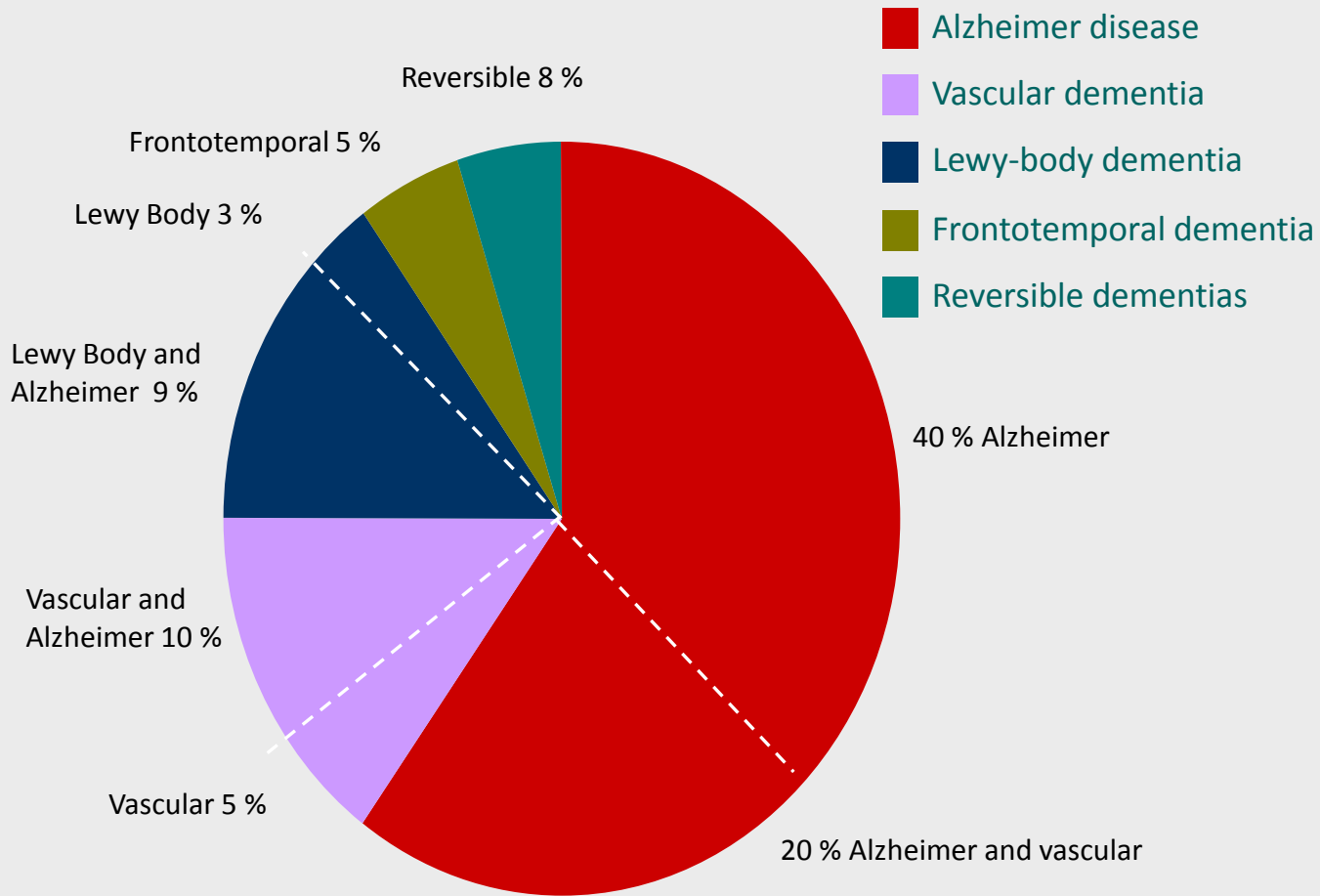
Age-related prevalence of dementia, depression, and anxiety disorders



Dementia prevalence in Germany: Projections up to 2050

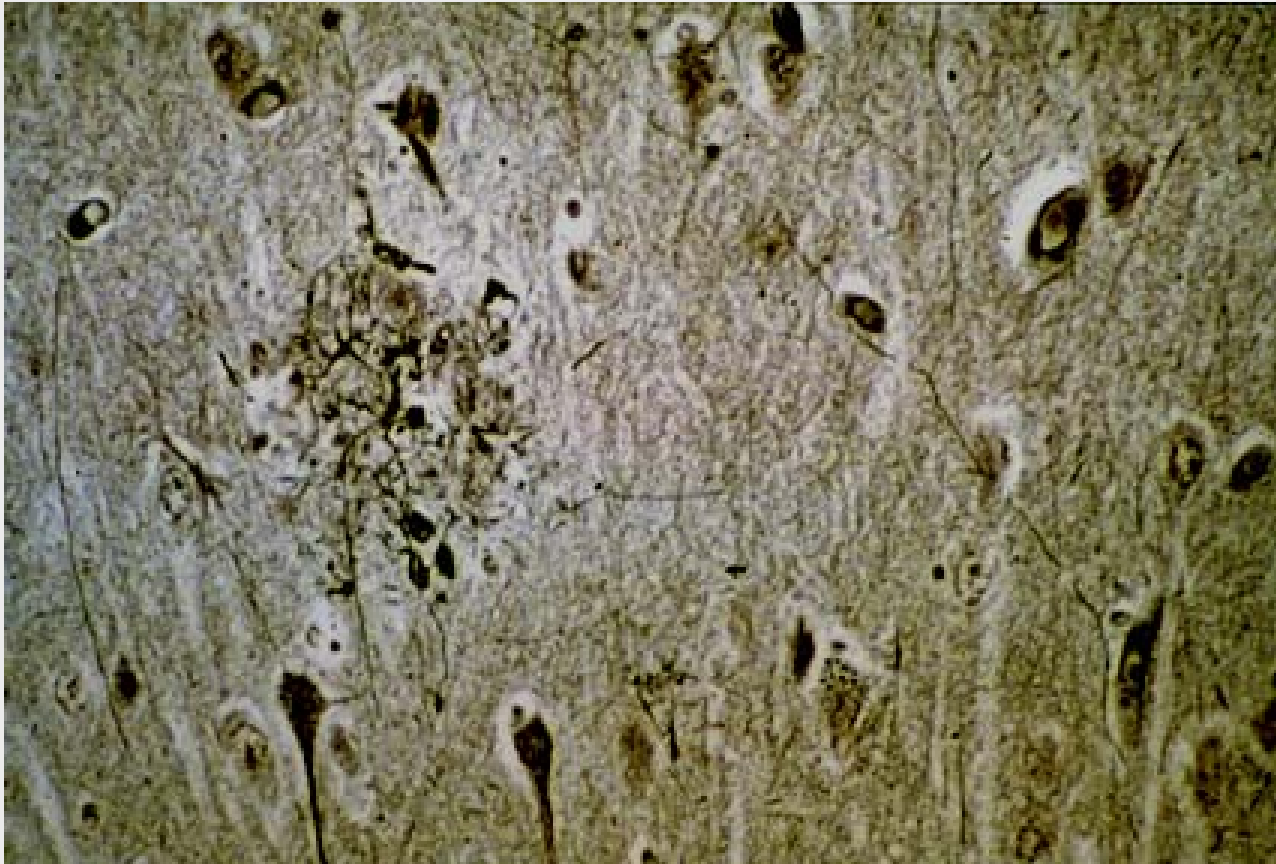


Distribution of Dementias



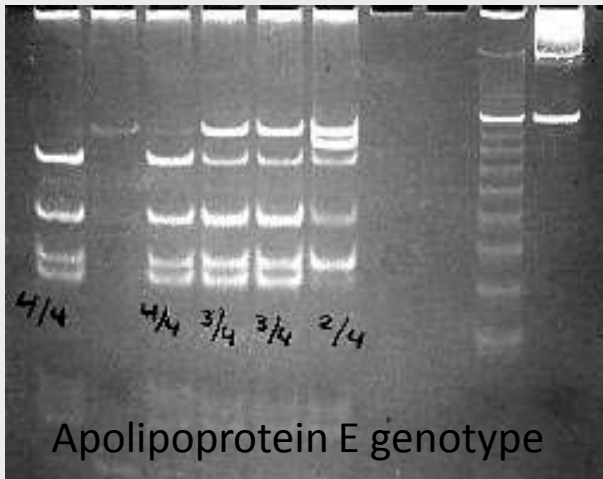
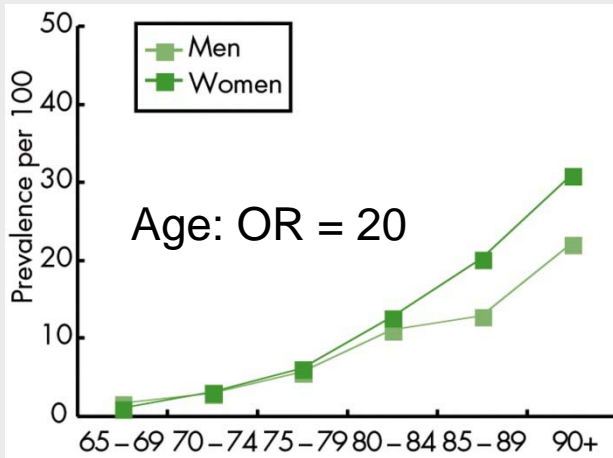
Gearing et al., 1995; Kosunen et al., 1996; Nagy et al., 1998; Bickel et al., 2009

Alzheimer's Disease



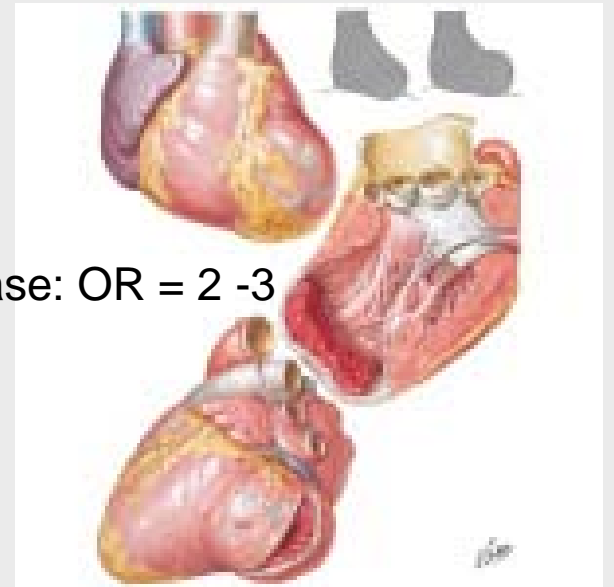
BUT: Plaques and tangles explain only 37% of the variance in cognition (MRC CFAS, 2002)

'Biggest' risk factors for Alzheimer disease

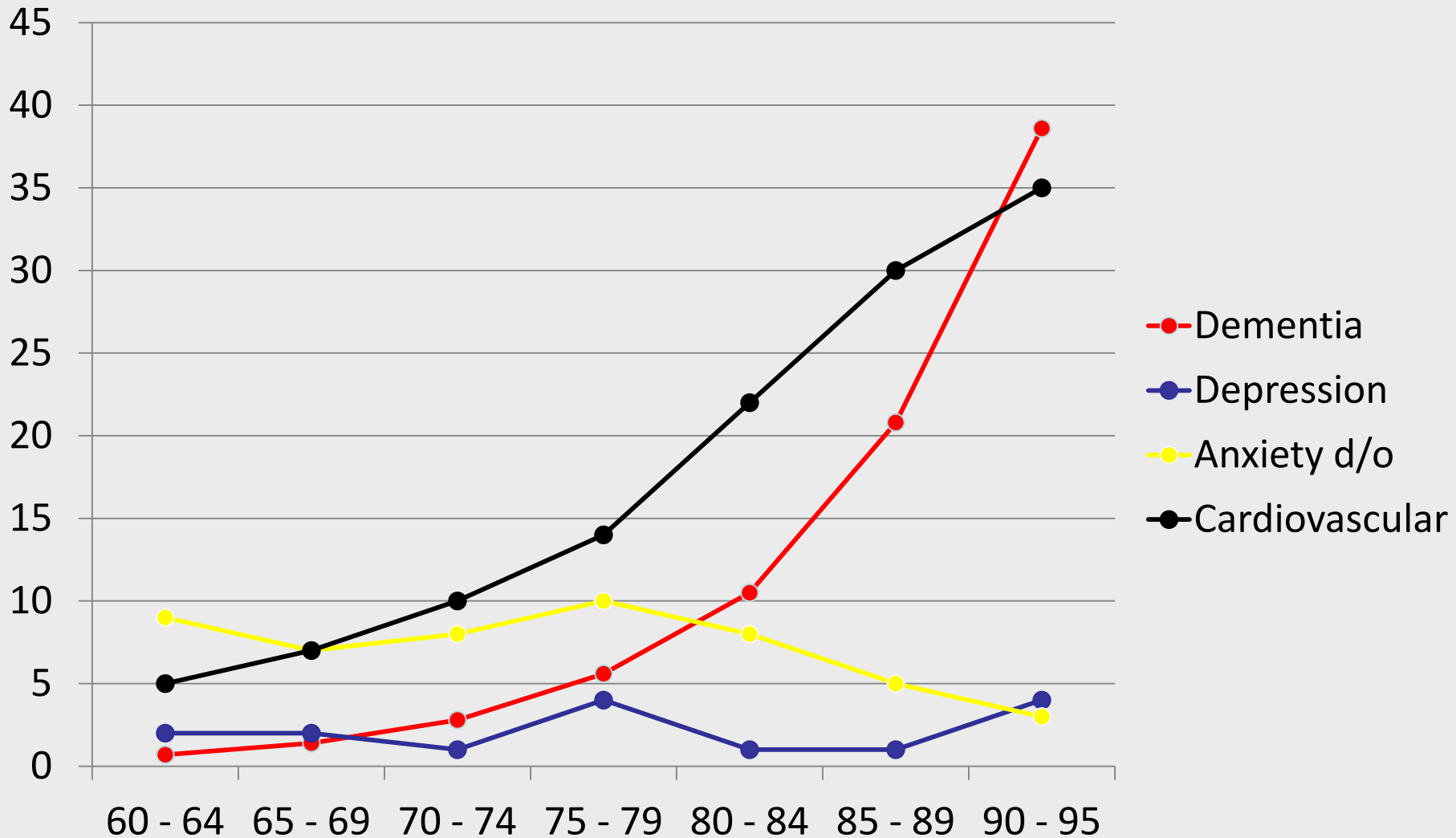


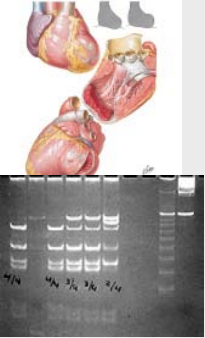
ApoE: OR = 10-14

Cardiovascular disease: OR = 2 -3

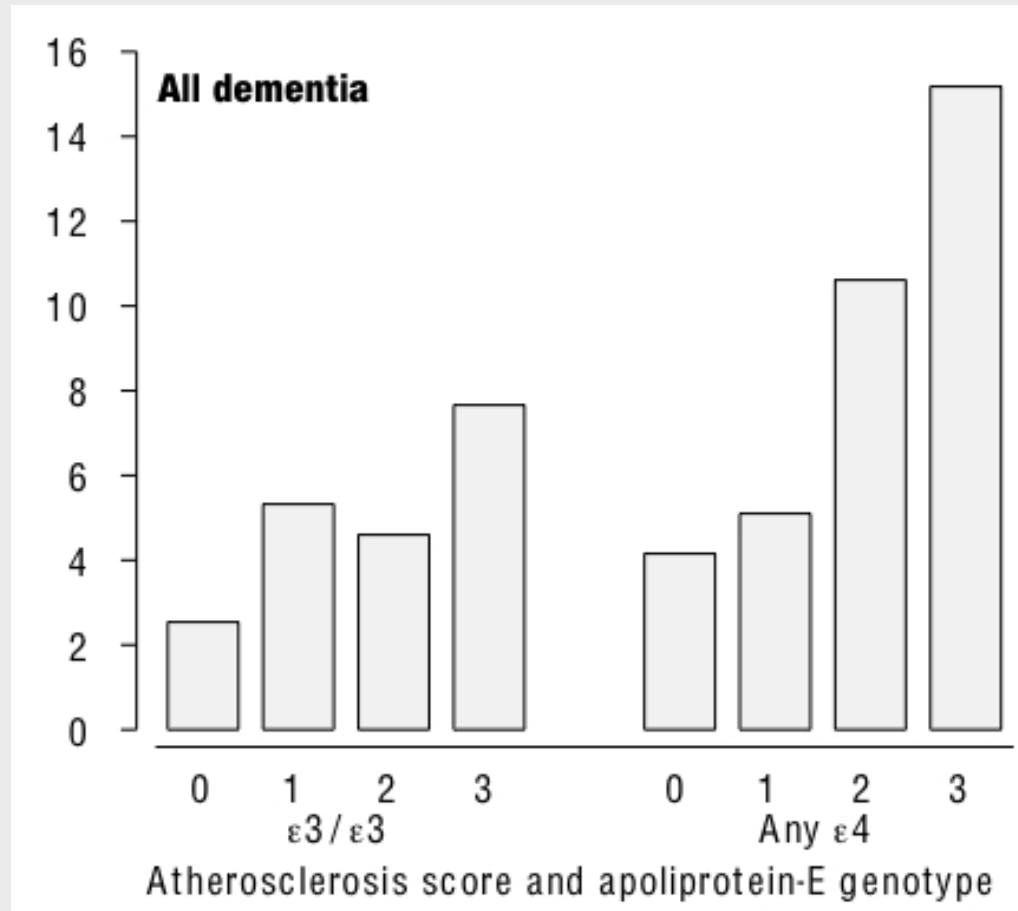


Prevalence of cardiovascular diseases with age





Apolipoprotein E genotype, atherosclerosis, and dementia



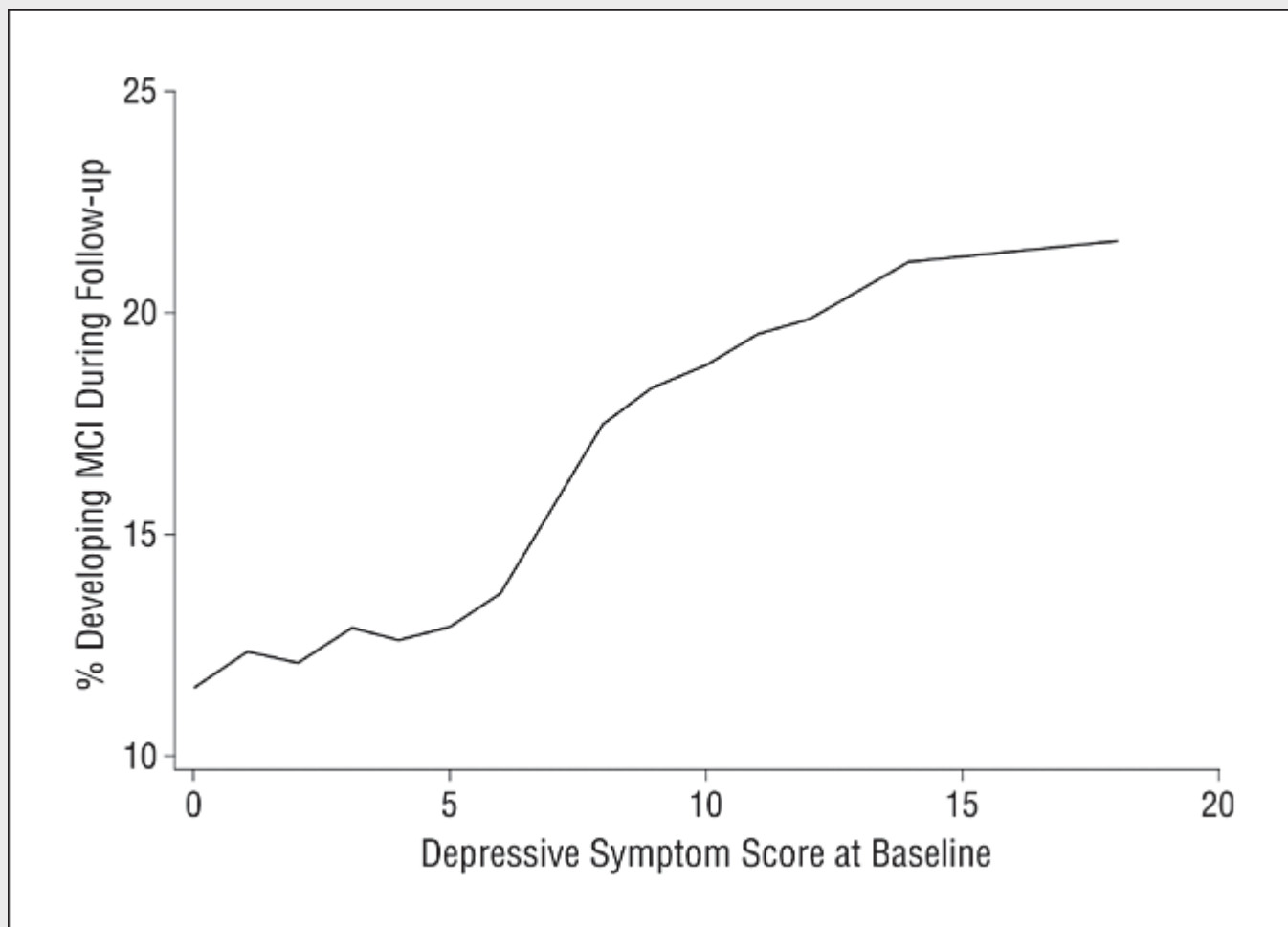
Hofman et al., Lancet, 1997.



Cognitive impairment as a function of depressivity

2220 patients from the cardiovascular health study (M=74,21 ± 4,2 years)

Methode:
Center for
Epidemiological Studies
Depression scale
Annual follow-up
Neuropsychological
battery



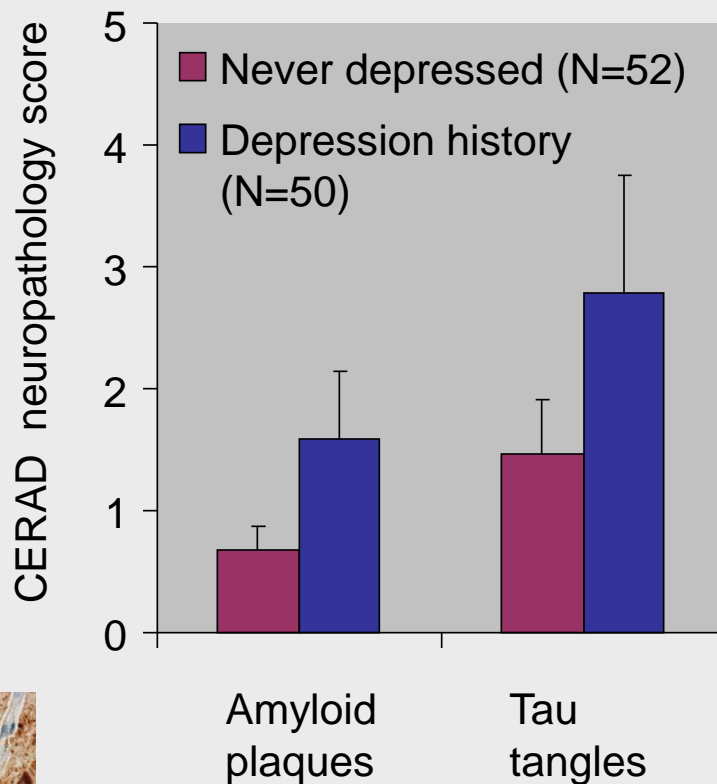
Barnes et al., Archives of General Psychiatry, 2006.



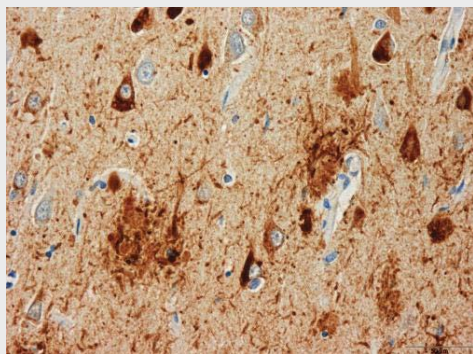
Depression and dementia: Alzheimer-related neuropathology as a function of depression history

Brains of 102 Alzheimer patients
(mean age at death = $81,01 \pm 7,8$ years)

Method:
Neuropathology rating (CERAD)
Geriatric depression scale (8 years ante mortem)



Depression history	R ²	χ^2	p
Prefrontal cortex	.102	7.47	.188
Hippocampus	.280	4.35	.037



Rapp et al., Archives of General Psychiatry, 2006.

NEUROPSYCHIATRIC SYMPTOMS IN DEMENTIA

Most common are agitation, apathy, depression

(Cohen-Mansfield et al., 2002)

High and highly variable prevalence rates (24-79%)

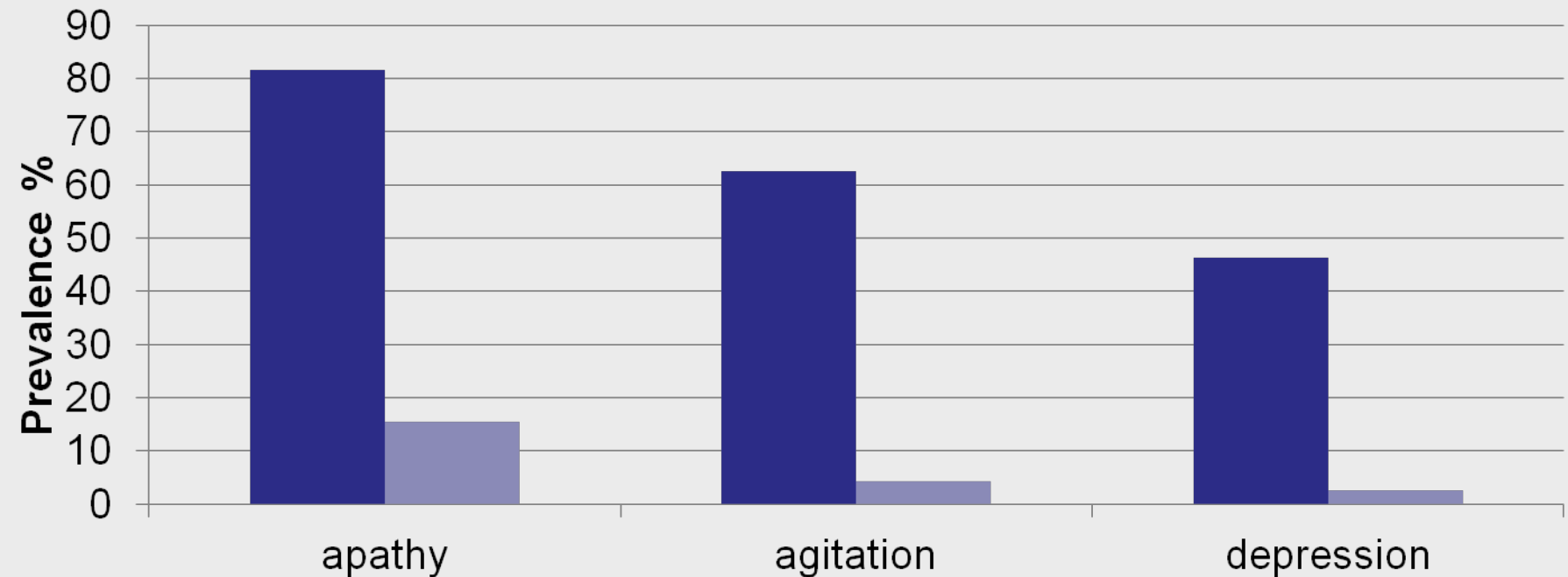
(e.g. Weyerer et al., 2006)

Decreased time to nursing home placement and increased caregiver burden (e.g., Phillips 2003)

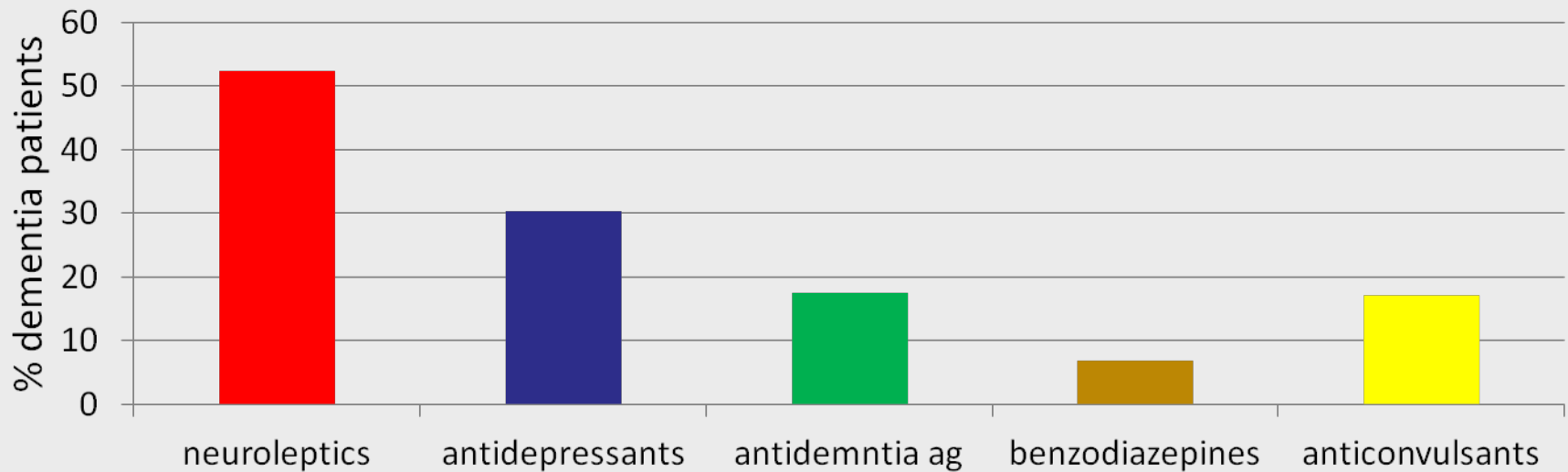
Present in up to 75% of nursing home residents with dementia

(Testad et al., 2007)

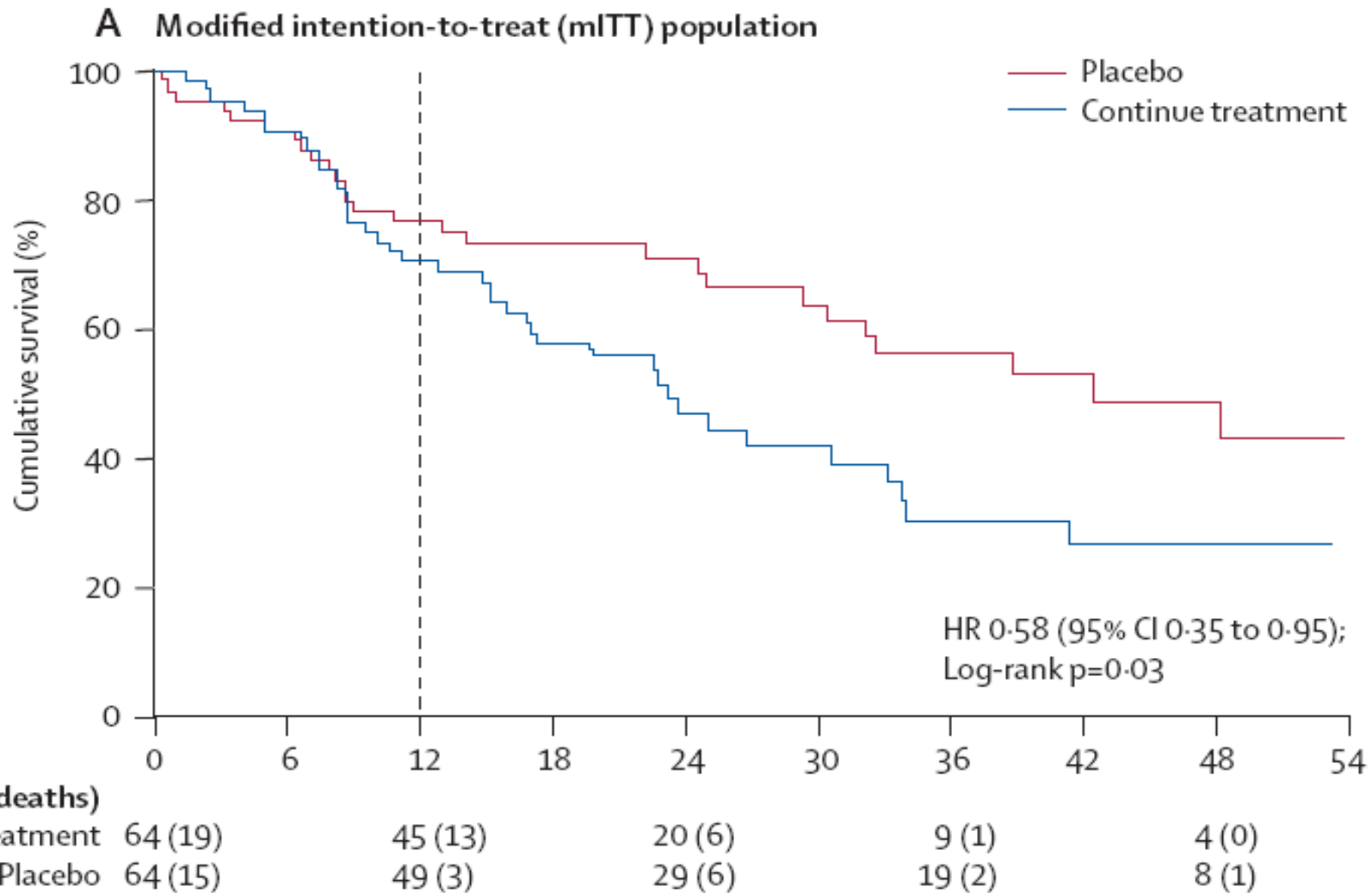
PREVALENCE OF NEUROPSYCHIATRIC SYMPTOMS: SYMPTOM OVERLAP



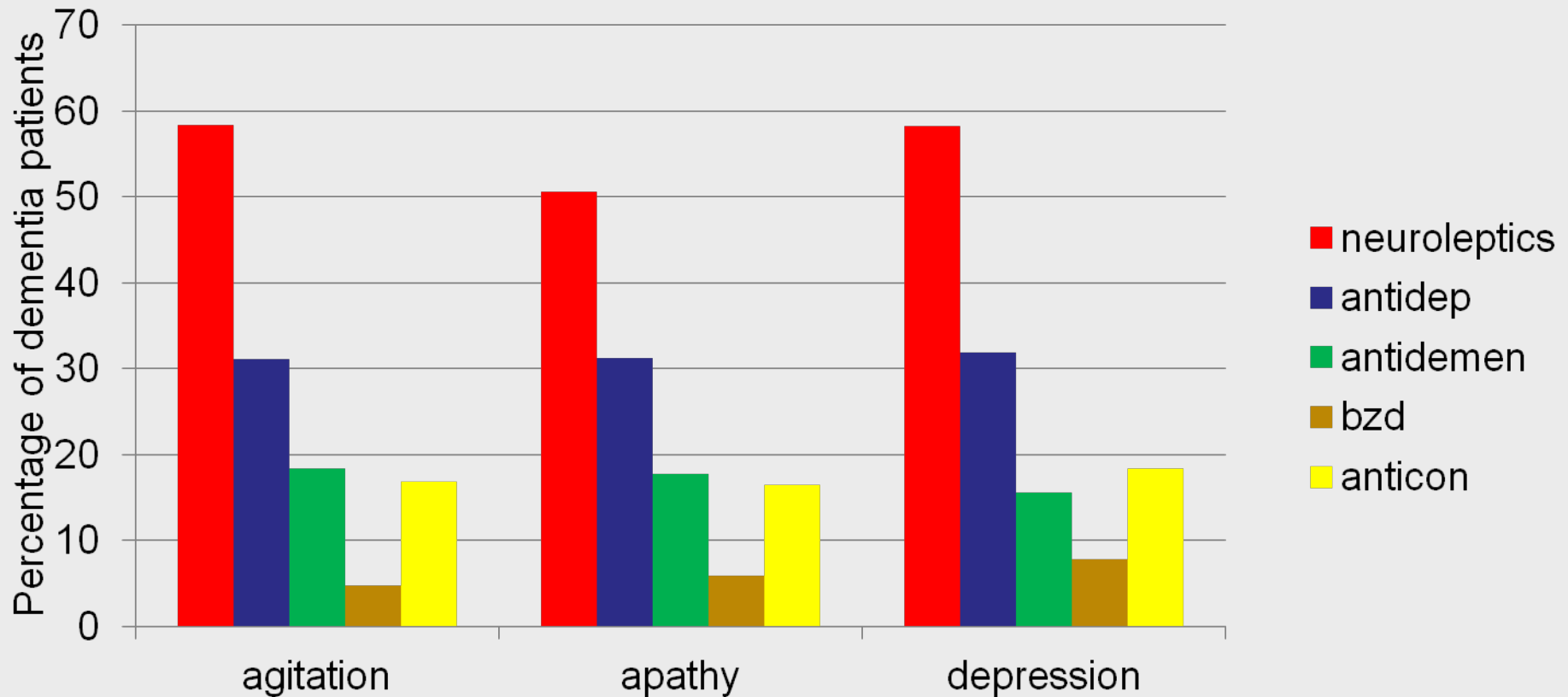
PSYCHOTROPICS PRESCRIPTIONS IN DEMENTIA PATIENTS



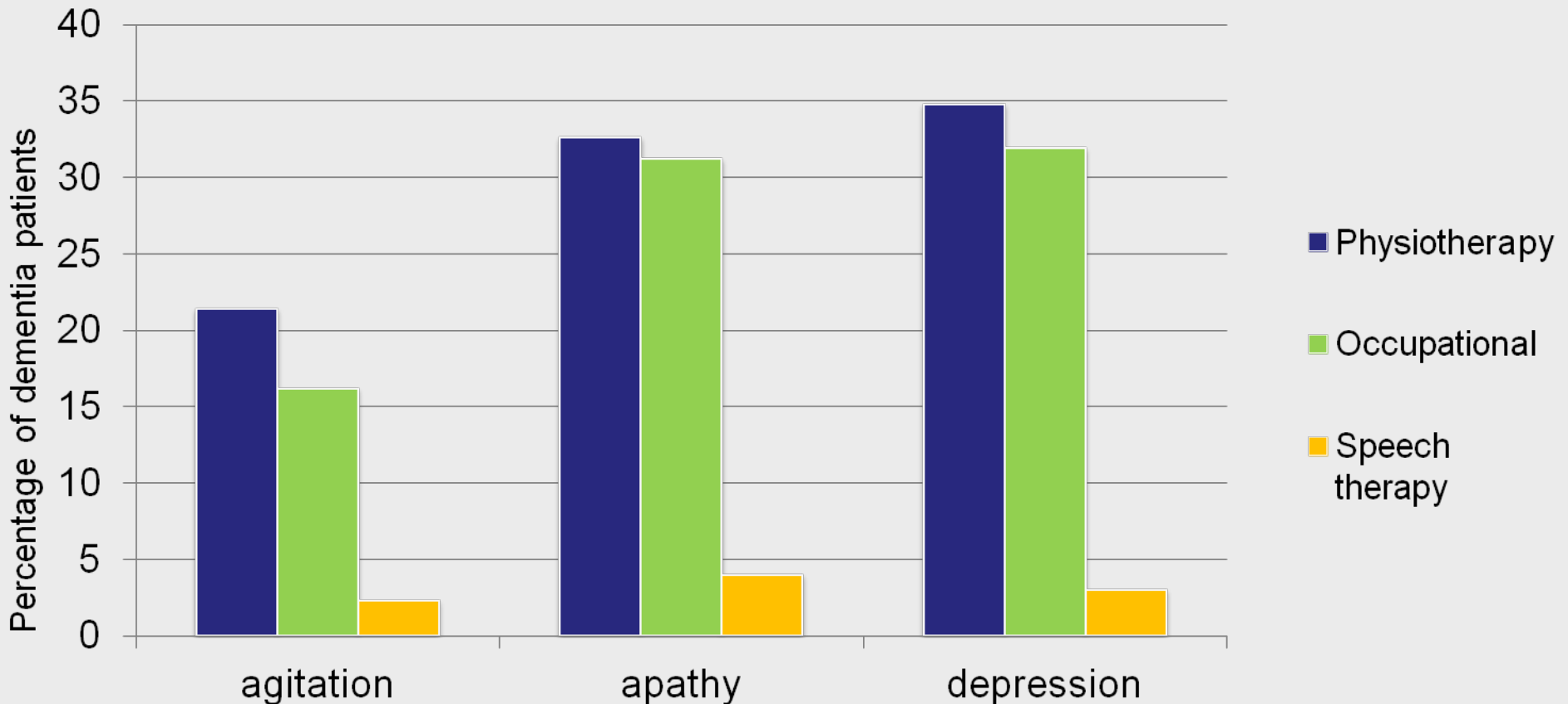
MORTALITY RISK DURING NEUROLEPTIC TREATMENT (DART-AD)



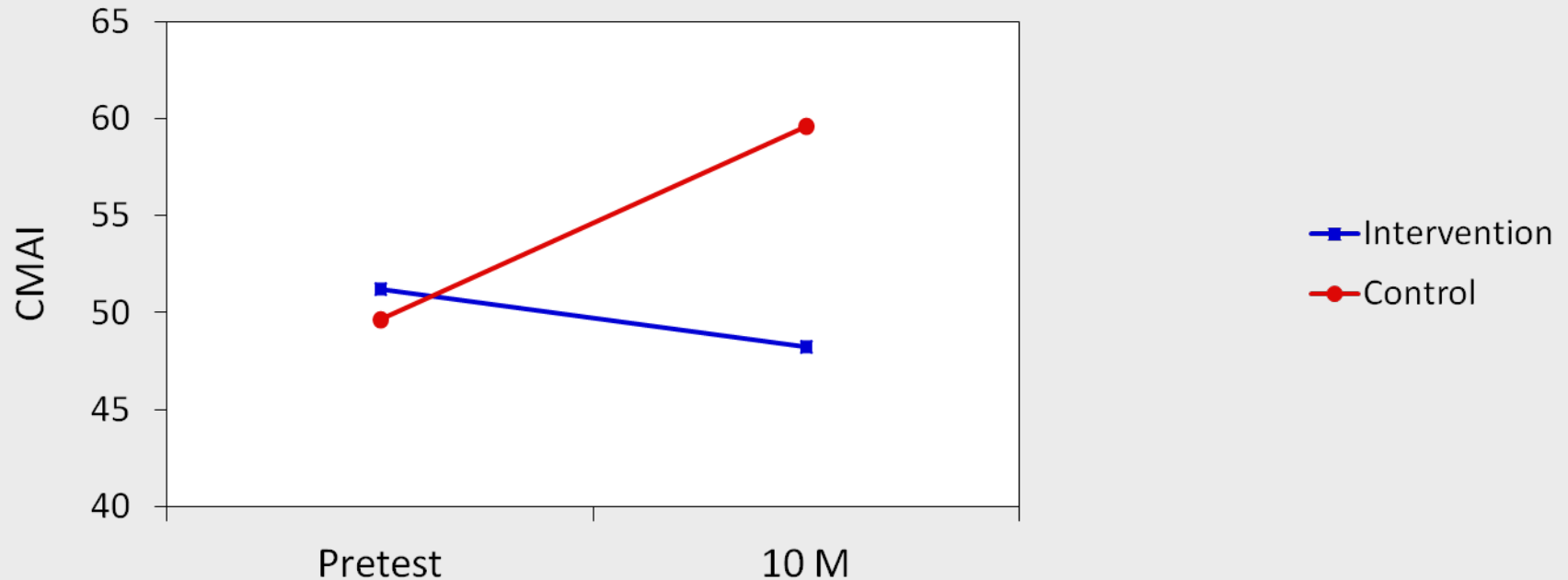
PHARMACOLOGICAL INTERVENTIONS FOR NEUROPSYCHIATRIC SYMPTOMS: LACK OF SPECIFICITY



NON-PHARMACOLOGICAL INTERVENTIONS FOR NEUROPSYCHIATRIC SYMPTOMS



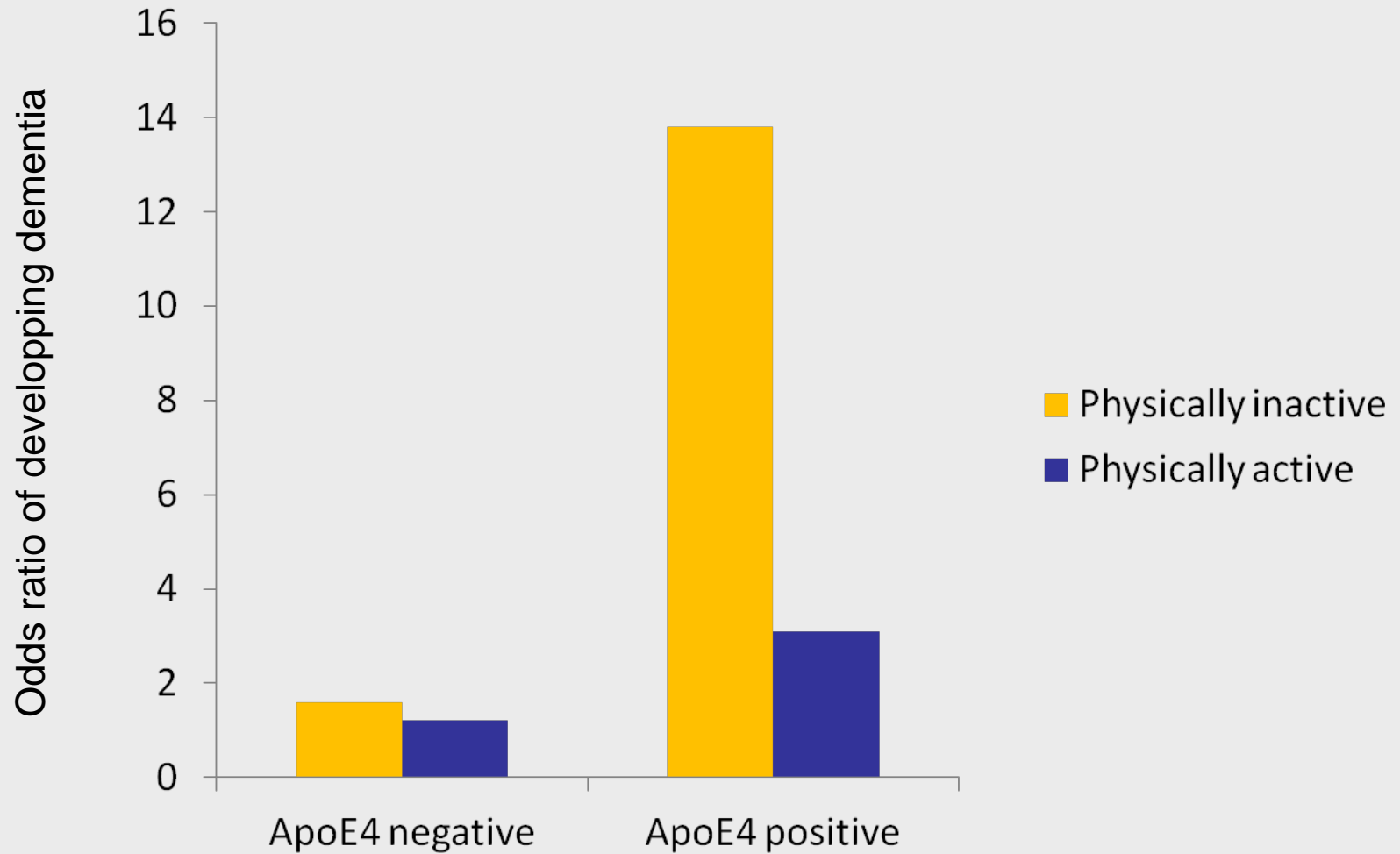
OVERALL INTERVENTION EFFECT



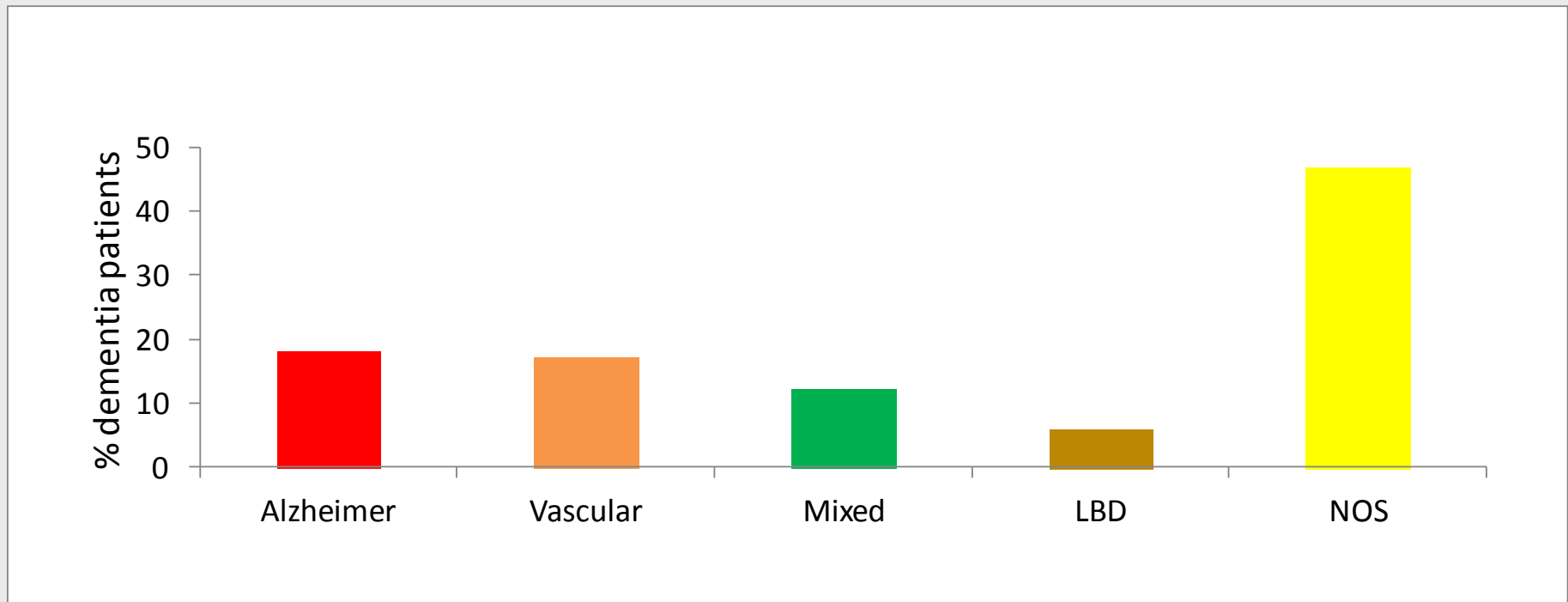
Cluster randomized regression, controlling for age, gender, and dementia severity:
Adjusted mean difference 6,24; 95% CI, 2,03-14,14; $p = .009$; Cohen's $d = 0.43$.

Outlook prevention:

Physical activity and dementia risk - genotype effects

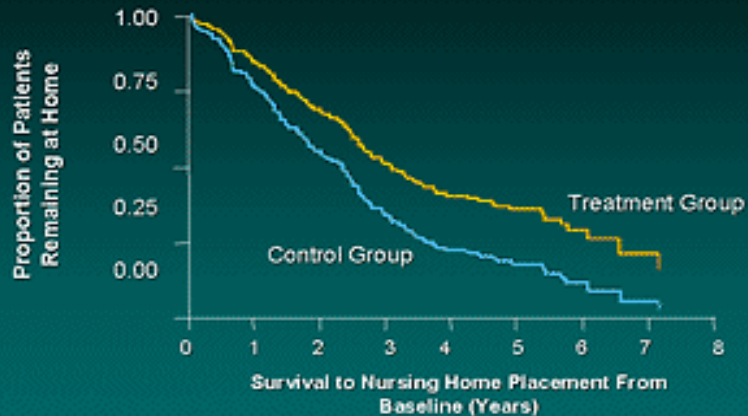


Outlook service provision: Differential diagnosis



Outlook service provision: Psychosocial and pharmacological interventions

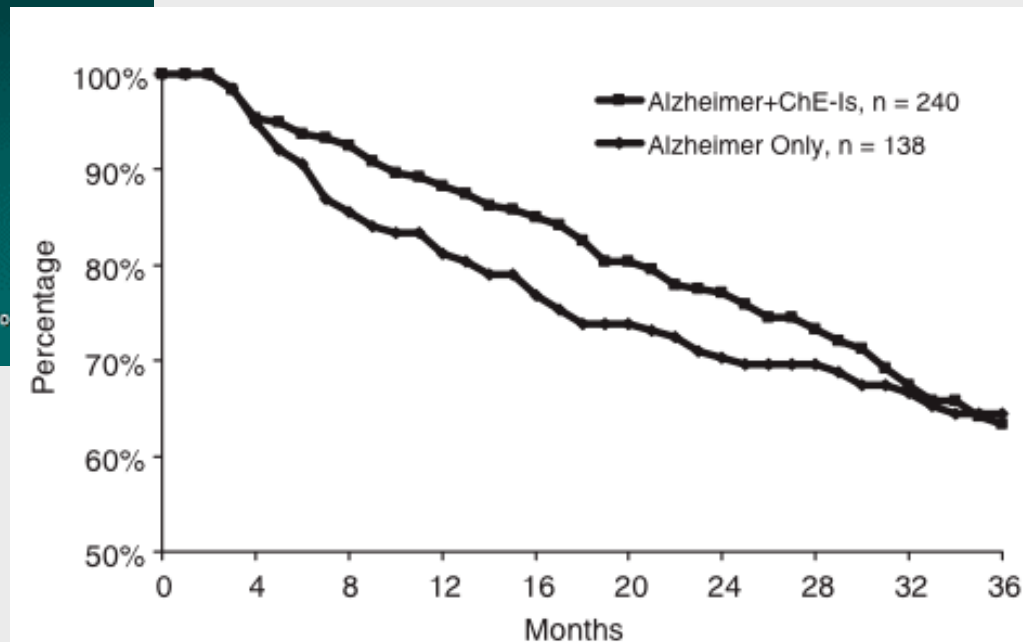
Nursing Home Placement Impact of Support Programs



P = .02
Source: Adapted with permission from Mittelman MS et al. *JAMA*. 1996;276:1725-1731. Copyright American Medical Association.

Support programs for relatives
Mittelman et al. (1996)

Cholinesterase inhibitors
Becker et al. (2006)



14-20% of dementia patients receive cholinesterase inhibitors

0.5% of caregivers are enrolled in support programs

Outlook society: Campus Daniel Berlin – daycare, primary school, and dementia care unit





Thank you for your attention!

Hans Gutzmann, Vahram Haroutunian, Andreas
Heinz, Stephan Heinzl, Ralf Krampe, Adelheid
Kuhlmeier, Tomislav Majic, Thomas Mell, Imke Puls, Nina
Rieckmann, Thomas Riemer, Mary Sano, Florian
Schlagenhauf, Stephanie Schulte

Dementia in Nursing Homes: Results from the BKK Study sample

Sample of 12.000+ nursing home residents drawn
from a large German public insurance carrier

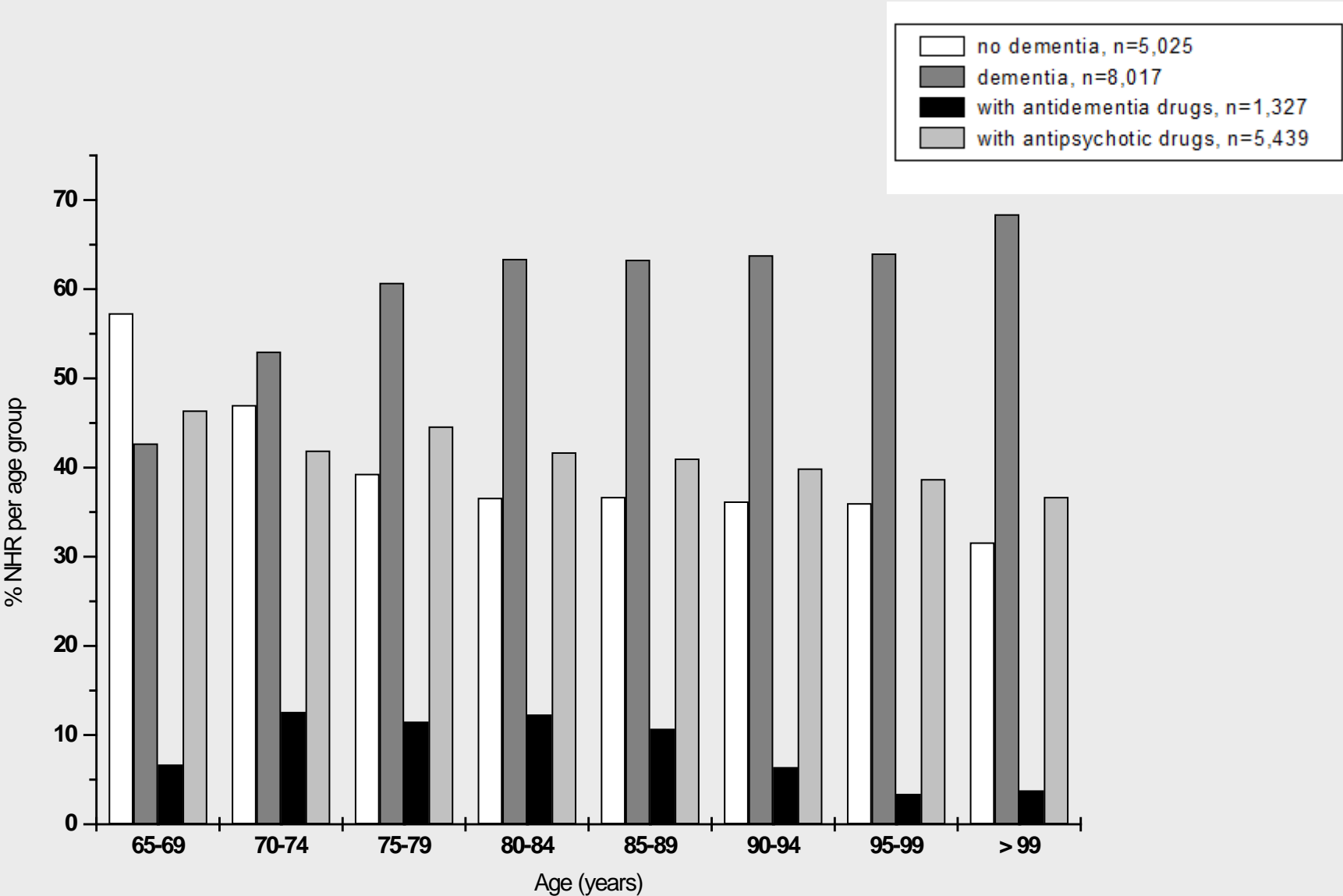
Diagnosis of dementia subtype according to ICD 10		Number of NHR (%)
F03:	Unspecified dementia	6,045 (46.4)
F01:	Vascular dementia	2,191 (16.8)
G30:	Alzheimer's disease	2,157 (16.5)
F00:	Dementia in Alzheimer's disease	1,831 (14.0)
F02:	Dementia in diseases classified elsewhere	195 (1.5)
G31.82:	Lewy body(ies)(dementia)(disease)	3

Dementia in Nursing Homes: Representativity of the BKK Study sample

	Study cohort			National reference	
	Total (n=13,042)	Men (n=2,365)	Women (n=10,677)	(n=667,059)	
Age (years)	65-69 years	4.1%	10.3%	2.7%	4.7%
	70-74 years	7.8%	14.8%	6.2%	8.4%
	75-79 years	13.8%	19.1%	12.6%	12.4%
	80-84 years	25.3%	22.5%	26.0%	20.0%
	85-89 years	29.8%	21.3%	31.7%	30.0%
	> 89 years	19.2%	12.0%	20.8%	22.5%
Level of care*	1	30.8%	31.4%	30.6%	36.8%
	2	43.8%	44.2%	43.7%	41.0%
	3	25.4%	24.4%	25.7%	20.5 %

Report of the German Federal Statistical Office: Statistical Analysis about Nursing and Care, 2009

Dementia prevalence and psychotropics



Percentage of dementia patients prescribed antedementia agents by dementia diagnosis

