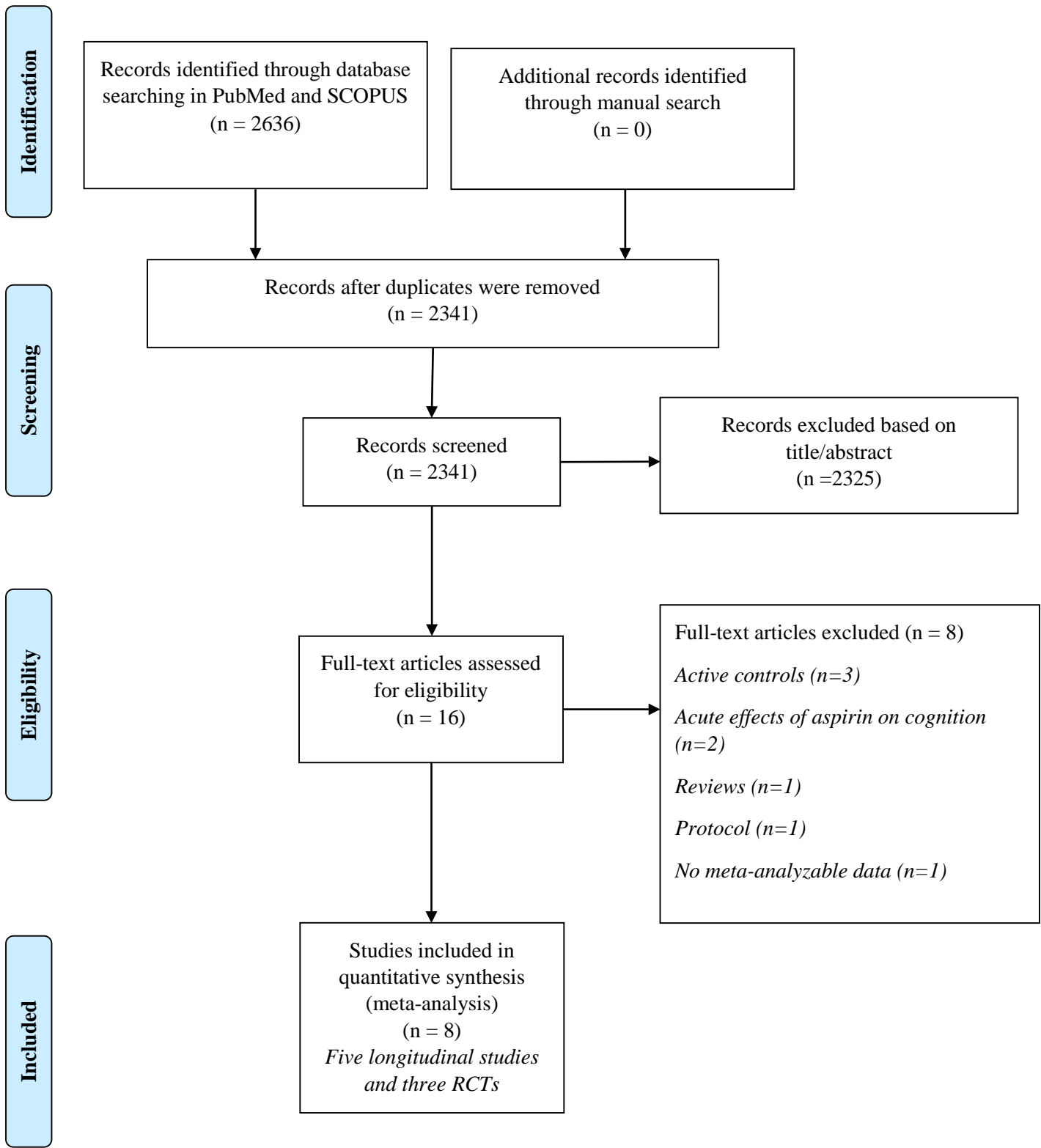


Supplementary Figure S1. PRISMA flow-chart



Supplementary Table S1. Descriptive characteristics of the longitudinal studies included.

Author, year	Country	Setting	N of participants at the baseline	Mean age (SD)	Percentage of females	Follow-up duration (years)	Diagnostic criteria	Dosage/daily of aspirin (mg)	Covariates	Quality (Newcastle-Ottawa scale)
Jonker et al., 2003	The Netherlands	Community	612	73 (6.6)	51	3	Cognitive impairment (Edwards-Nunnally method for three cognitive tests)	100 mg or less	Age, gender, education, baseline MMSE score, diabetes mellitus, rheumatoid arthritis, vascular disease	6
Kern et al., 2012	Sweden	Community	789	75 (5.2)	100	5	Dementia (DSM-III-R)	75-160 mg	None	6
Nilsson et al., 2003	Sweden	Community	702	83.9 (3.1)	58	9	Dementia (DSM-III and NINCS-ARDRA (for AD) or NINDS-AIREN (for vascular dementia))	75	Age, gender, cerebrovascular disease	7
Kelley et al., 2015	USA	Community	23915	64 (9.2)	43	5.9	Cognitive impairment (Six-item screener<5)	Not reported	Age, sex, race, education, income, region	7
Williams-Gray et al., 2014	United Kingdom	Community	141	70.1 (10.2)	42	10	Dementia (DSM-IV with a MMSE \leq 24/30)	75	None	6
Total		Five studies in community	26,159	65.1 (8.9)	59	Median=6 (range: 3-10)	3 studies: dementia; 2: cognitive impairment		Median=3 (range: 0-7)	Median=6 (range: 6-7)

Abbreviations: DSM: Diagnostic and Statistical Manual of Mental Disorders; NINCS-ARDRA: National Institute of Neurologic, Communicative Disorders and Stroke-Alzheimer's Disease and Related Disorders Association; NINDS-AIREN: National Institute of Neurological Disorders and Stroke-Association Internationale pour la Recherche et l'Enseignement en Neurosciences; MMSE: Mini-Mental State Examination; SD: standard deviation.

Supplementary Table S2. Descriptive characteristics of the randomized controlled trials included.

Author, year	Country	Setting	N of participants (total)	Mean age (SD)	Percentage of females	Follow-up duration (years)	Tests for cognitive status	Dosage/daily (mg)	Quality (Jadad's score)
AD2000 collaborative group, 2000	United Kingdom	Community	310	75 (2.5)	37	3	MMSE	75	4
Kang et al., 2007	USA	Community	6,377	66.3 (4.1)	100	9.6	Global score, verbal memory score, TICS test, category fluency	100	5
Price et al., 2008	United Kingdom	Community	3,350	62 (7)	71.5	5	Raven's progressive matrices, auditory verbal learning, digit symbol, verbal fluency, trail making, MMSE	100	5
Total		3 studies: community	10,037	66.8 (7.1)	74	Median=5 (range: 3-9.6)			Median=5 (range: 4-5)

Abbreviations: MMSE: Mini-Mental State Examination; SD: standard deviation; TICS: Telephone Interview for Cognitive Status.