

Supplemental Material S9. Multivariable-adjusted associations of global and domain-specific cognitive performance with speech-in-noise performance by cohort, ACHIEVE baseline (2018–20) and ARIC-NCS Visit 6/7 (2016–17/2018–19).

Worse Cognitive Performance, per SD^a	Cohort 1: ACHIEVE (N=427)^b		Cohort 2: ARIC-NCS (N=173)^b		P-interaction
	Estimate (95% CI)	P-value	Estimate (95% CI)	P-value	
Global	-1.28 (-1.82, -0.75)	<0.001	-0.83 (-1.51, -0.14)	0.02	0.27
Language	-1.08 (-1.59, -0.57)	<0.001	-0.94 (-1.69, -0.19)	0.01	0.75
Executive function	-1.08 (-1.61, -0.56)	<0.001	-0.33 (-1.05, 0.38)	0.36	0.07
Memory	-0.50 (-0.99, -0.02)	0.04	-0.61 (-1.25, 0.04)	0.07	0.80

Abbreviations: ACHIEVE: Aging and Cognitive Health Evaluation in Elders; ARIC-NCS: Atherosclerosis Risk in Communities Neurocognitive Study; CI: confidence interval; SD: standard deviation.

^a Multivariable-adjusted linear regression to estimate change in the quick speech-in-noise score associated with every SD worse in cognitive performance. An interaction term between cognitive performance and cohort (ACHIEVE/ARIC-NCS) was included.

^b Models adjusted for age, sex, race, field center, education, body mass index, smoking, hypertension, diabetes, and stroke.