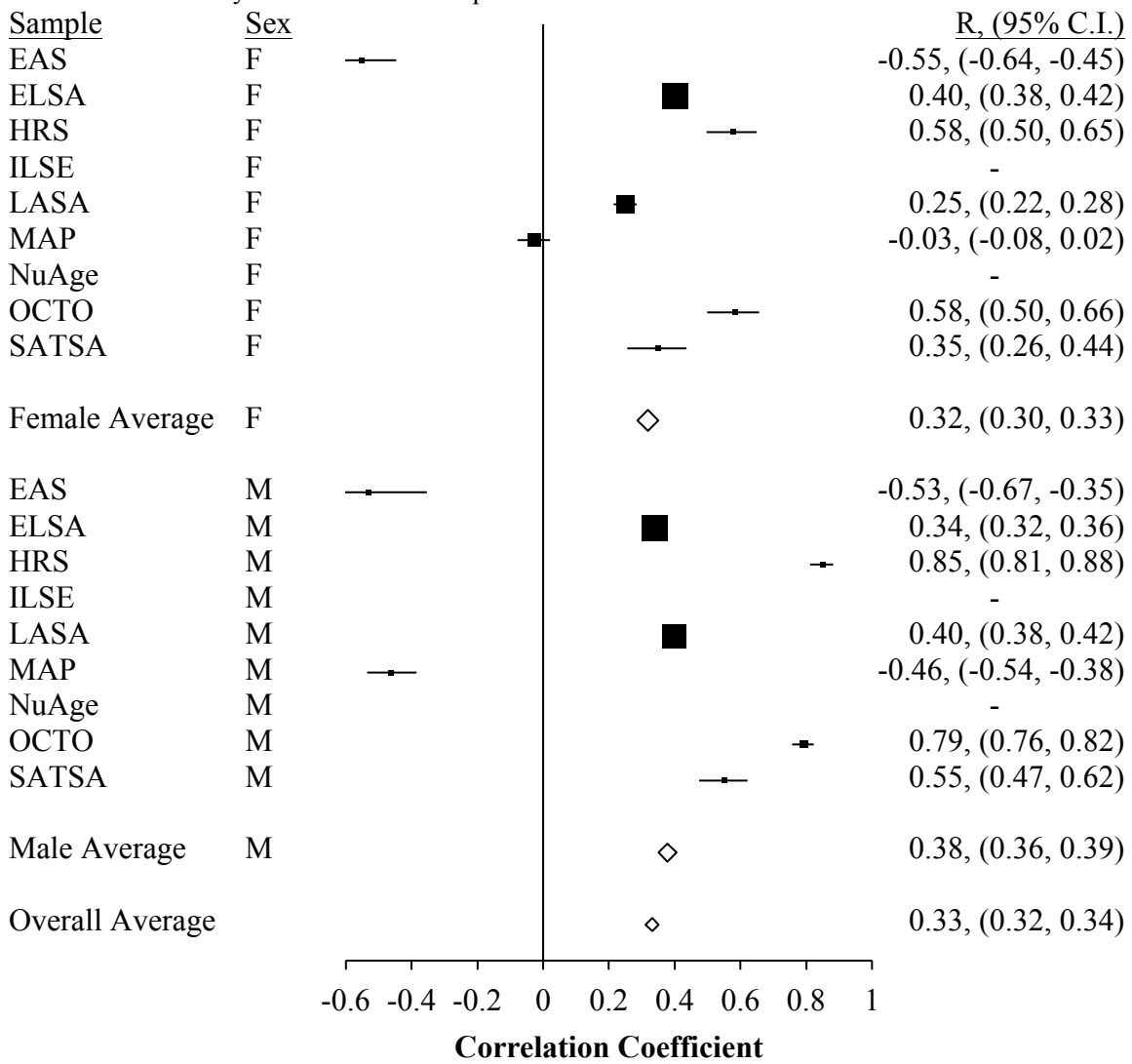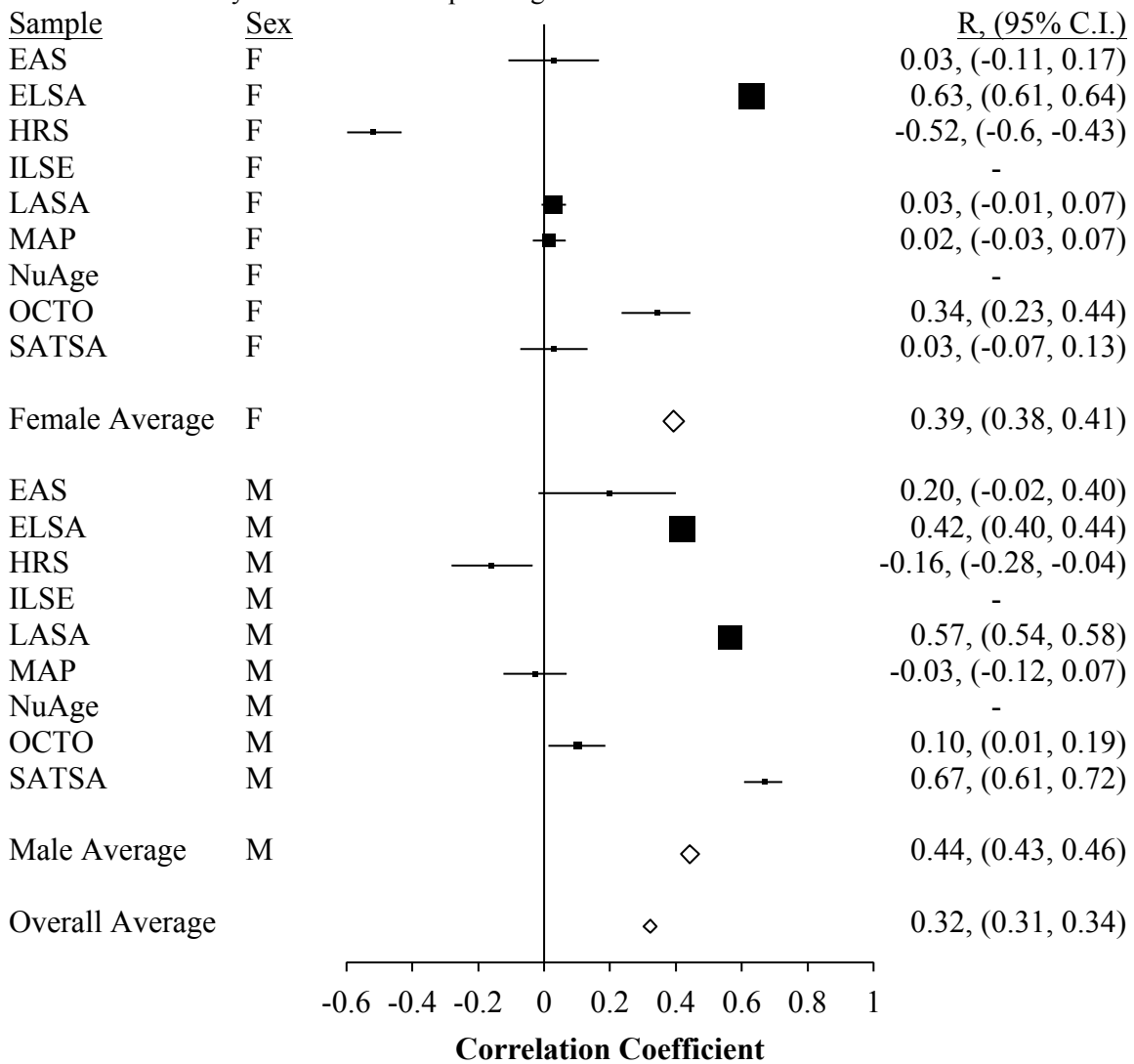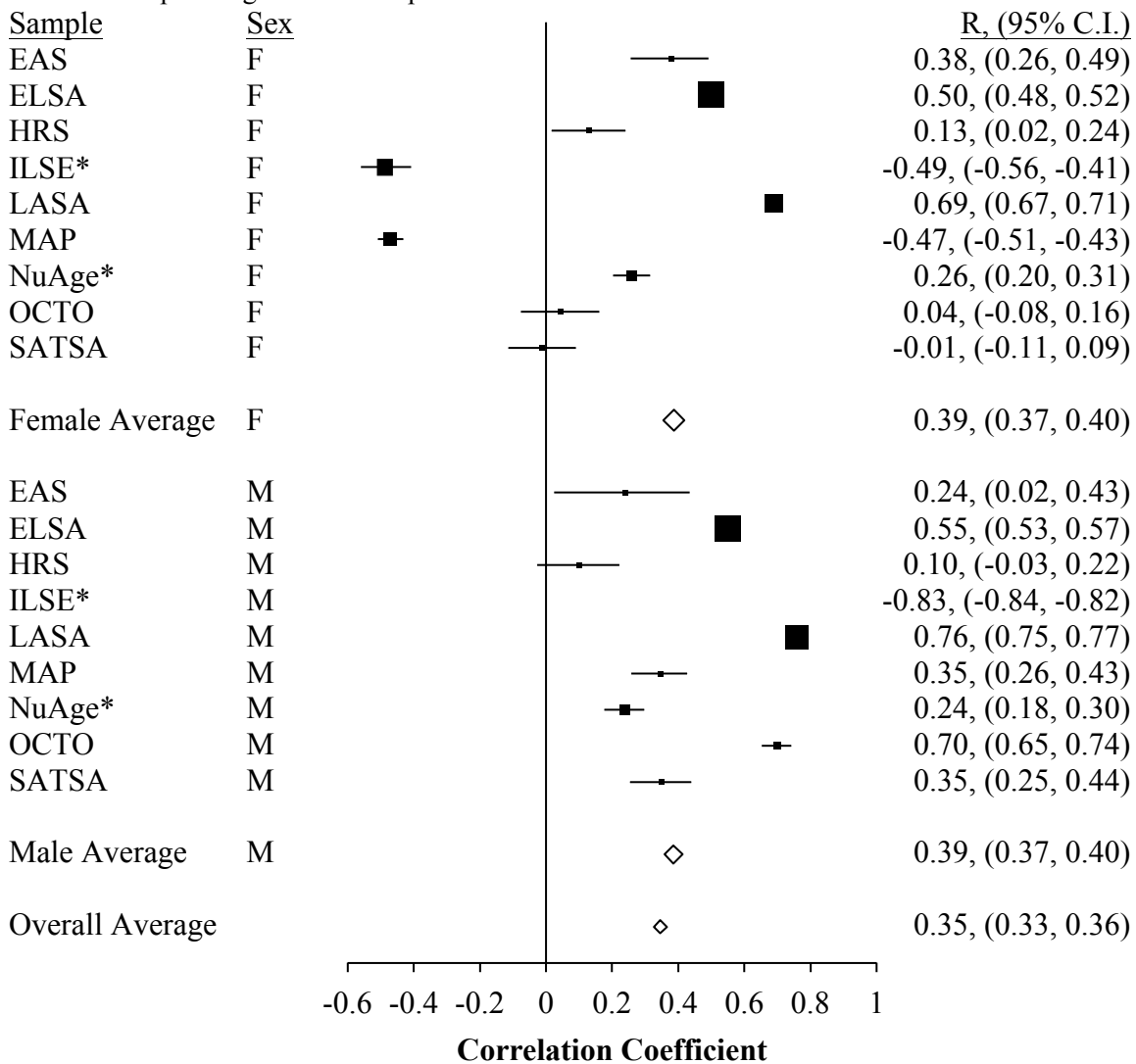**Figure 1.** Slope-Slope associations across domains of functioning, separated by sex and by paired association.

Panel A: Pulmonary function and Gait speed

Sample	Sex		R, (95% C.I.)
EAS	F		-0.55, (-0.64, -0.45)
ELSA	F		0.40, (0.38, 0.42)
HRS	F		0.58, (0.50, 0.65)
ILSE	F		-
LASA	F		0.25, (0.22, 0.28)
MAP	F		-0.03, (-0.08, 0.02)
NuAge	F		-
OCTO	F		0.58, (0.50, 0.66)
SATSA	F		0.35, (0.26, 0.44)
Female Average	F		0.32, (0.30, 0.33)
EAS	M		-0.53, (-0.67, -0.35)
ELSA	M		0.34, (0.32, 0.36)
HRS	M		0.85, (0.81, 0.88)
ILSE	M		-
LASA	M		0.40, (0.38, 0.42)
MAP	M		-0.46, (-0.54, -0.38)
NuAge	M		-
OCTO	M		0.79, (0.76, 0.82)
SATSA	M		0.55, (0.47, 0.62)
Male Average	M		0.38, (0.36, 0.39)
Overall Average			0.33, (0.32, 0.34)

-0.6 -0.4 -0.2 0 0.2 0.4 0.6 0.8 1

Correlation Coefficient

Panel B: Pulmonary Function and Grip Strength

Sample	Sex		R, (95% C.I.)
EAS	F		0.03, (-0.11, 0.17)
ELSA	F		0.63, (0.61, 0.64)
HRS	F		-0.52, (-0.6, -0.43)
ILSE	F		-
LASA	F		0.03, (-0.01, 0.07)
MAP	F		0.02, (-0.03, 0.07)
NuAge	F		-
OCTO	F		0.34, (0.23, 0.44)
SATSA	F		0.03, (-0.07, 0.13)
Female Average	F		0.39, (0.38, 0.41)
EAS	M		0.20, (-0.02, 0.40)
ELSA	M		0.42, (0.40, 0.44)
HRS	M		-0.16, (-0.28, -0.04)
ILSE	M		-
LASA	M		0.57, (0.54, 0.58)
MAP	M		-0.03, (-0.12, 0.07)
NuAge	M		-
OCTO	M		0.10, (0.01, 0.19)
SATSA	M		0.67, (0.61, 0.72)
Male Average	M		0.44, (0.43, 0.46)
Overall Average			0.32, (0.31, 0.34)

Correlation Coefficient

Panel C: Grip Strength and Gait Speed

Sample	Sex		R, (95% C.I.)
EAS	F		0.38, (0.26, 0.49)
ELSA	F		0.50, (0.48, 0.52)
HRS	F		0.13, (0.02, 0.24)
ILSE*	F		-0.49, (-0.56, -0.41)
LASA	F		0.69, (0.67, 0.71)
MAP	F		-0.47, (-0.51, -0.43)
NuAge*	F		0.26, (0.20, 0.31)
OCTO	F		0.04, (-0.08, 0.16)
SATSA	F		-0.01, (-0.11, 0.09)
Female Average	F		0.39, (0.37, 0.40)
EAS	M		0.24, (0.02, 0.43)
ELSA	M		0.55, (0.53, 0.57)
HRS	M		0.10, (-0.03, 0.22)
ILSE*	M		-0.83, (-0.84, -0.82)
LASA	M		0.76, (0.75, 0.77)
MAP	M		0.35, (0.26, 0.43)
NuAge*	M		0.24, (0.18, 0.30)
OCTO	M		0.70, (0.65, 0.74)
SATSA	M		0.35, (0.25, 0.44)
Male Average	M		0.39, (0.37, 0.40)
Overall Average			0.35, (0.33, 0.36)

-0.6 -0.4 -0.2 0 0.2 0.4 0.6 0.8 1

Correlation Coefficient

Notes: Labels are shown for all samples, irrespective of availability of result. Analyses are sex-stratified; M refers to male-specific analyses, while F refers to female-specific analyses. Individual studies are represented by squares, diamonds represent averages derived from fixed-effects meta-analysis. The size of the square represents the weight of the estimate. R indicates correlation coefficient. 95% CI references the 95% Confidence Interval around the estimate and is shown visually on the graph using uncapped error bars. -No estimates available for this sample in this category. *NuAge and ILSE rely on timed up and go (TUG) to estimate walking speed.