Changes in Cognitive Function and Brain Health in Aging and Alzheimer’s Disease

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FreeSurfer & Quarc for looking at changes in cortical thickness in aging and dementia

AtlasTrack for looking at changes in white matter in aging

Prediction of dementia is improved by combining imaging results with other clinical or biomarker measures. (Heister et al. Neurol, 2012)

Hypertension is associated with changes in diffusivity in several white matter tracts; especially in men with the APOE ε4 allele. These differences are apparent even in those who achieved good blood pressure control. (McEvoy et al. Hypertension, 2015).
Metabolic syndrome in women, but not men, was associated with steeper decline in executive function with age (McEvoy et al. Ann Epidem, 2012).

Currently obtaining structural brain scans and diffusion-weighted images on surviving participants of RBS to relate measures of health and lifestyle obtained over prior 20 years with late life brain health.