

Supplementary Material

Supplementary Table 1. SED assessments in representative online datasets – detailed version

Dataset	Type of information provided	Direct SED measure	Indirect SED measures	Data origin
Alzheimer's Disease Neuroimaging Initiative (ADNI) http://adni.loni.usc.edu	<ul style="list-style-type: none"> ▪ Clinical (demographics, clinical and cognitive assessments) ▪ Genetic (Genotyping and Whole Genome Sequencing data) ▪ Neuroimaging (MRI and PET) ▪ Biospecimen 	NAI	Demographics: Age(years), Education (years), Gender, Race, Ethnicity, Occupation, Type of residence.	US, Canada
National Alzheimer's Coordinating Center (NACC) Database https://naccdata.org	<ul style="list-style-type: none"> ▪ Clinical (demographics, clinical and cognitive assessments) ▪ Neuropathology (autopsy data) ▪ Neuroimaging (MRI and PET) ▪ Fluid biomarker (CSF data) ▪ Genotypic and genomic data 	NAI	Demographics: Age(years), Education (years), Sex, Race, Ethnicity, Type of residence, Living situation, ZIP Code.	US
Rush Alzheimer's Disease Center (RADC) Datasets https://www.radc.rush.edu	<ul style="list-style-type: none"> ▪ Actigraphy ▪ Affect and Personality ▪ ApoE and TOMM40 ▪ Blood Measures ▪ Brain Proteins ▪ Clinical Diagnosis ▪ Cognition ▪ Cultural Experiences ▪ Decision Making and Behavioral ▪ Economics ▪ Demographics ▪ Depression ▪ Digital Pen Device ▪ Disabilities ▪ Female Reproductive History ▪ Frailty ▪ Lifestyle ▪ Medical Conditions ▪ Medicare Claims ▪ Medications ▪ Metabolism ▪ Metabolomics ▪ Motor and Gait ▪ Neck, Low Back and Joint Pain ▪ Neuroimaging ▪ Nutrition 	SES: Income, Income (age 40), Parental education level [Maternal education (years), Paternal education (years)], Subjective SES.	Demographics: Age(years), Education (years), Sex, Race, Ethnicity, Marital status. Income, Income (age 40). Cognitive resources (i.e., <i>n</i> of newspaper, encyclopaedia, books) at age 12 and 40.	US

	<ul style="list-style-type: none"> ▪ Olfaction ▪ Pathology ▪ Pulmonary Function ▪ Sleep and Circadian Rhythms ▪ SES ▪ Vision ▪ Well-being 				
<p>Australian Imaging, Biomarker & Lifestyle Flagship Study of Ageing (AIBL)</p> <p>https://aibl.csiro.au</p>	<ul style="list-style-type: none"> ▪ Clinical (Demographics, clinical and cognitive assessments) ▪ Neuroimaging (MRI and PET) ▪ Fluid biomarkers (Blood and CSF data) ▪ Health and lifestyle factors 	NAI		NAI	Australia
<p>Parkinson's Progression Markers Initiative (PPMI)</p> <p>https://www.ppmi-info.org</p>	<ul style="list-style-type: none"> ▪ Clinical (Demographics, clinical and cognitive assessment) ▪ Physical and neurological examination ▪ Neuroimaging (MRI, DTI) ▪ Biomarkers (Blood, CSF, serum, plasma, urine, skin biopsies) ▪ Genetic data 	NAI		Demographics: Age(years), Education (years), Gender, Race, Ethnicity.	US, Canada, Spain, Luxembourg, Greece, Austria, Germany, UK, Netherlands, Italy, Israel, Nigeria.
<p>Cambridge Centre for Ageing and Neuroscience (Cam-CAN)</p> <p>http://www.cam-can.org</p>	<ul style="list-style-type: none"> ▪ Clinical (Demographics, cognitive assessment) ▪ Neuroimaging data (MRI) ▪ Physiological measures (blood pressure, height, weight) 	NAI		Demographics: Age(years), Education (years), Gender, Ethnicity, Marital status, Accommodation, Employment, Income, Birthplace, and English language history.	UK
<p>National Institute on Aging Genetics of Alzheimer's Disease Data Storage Site (NIAGADS)</p> <p>https://www.niagads.org</p>	<ul style="list-style-type: none"> ▪ Genetic data 	NAI		NAI	US
<p>UK Biobank</p> <p>https://www.ukbiobank.ac.uk</p>	<ul style="list-style-type: none"> ▪ Clinical (Demographics, clinical and cognitive assessment) ▪ Neuroimaging (MRI) ▪ Biomarkers (Blood, saliva, urine) ▪ Early life and reproductive factors ▪ Genetic data ▪ Lifestyle ▪ Geographical measures 		Index of Multiple Deprivation: access to service; community safe, crime, education, health, housing, income, living and physical environment scores.	Demographics: Age(years), Education (years), Sex, Ethnicity. Employment. Employment history. Household (gas, heating, <i>n</i> people, own or rent, vehicles). Type of residence. Private healthcare. Geographical measures: Greenspace and	UK

				coastal proximity.	
				Home locations.	
				Residential air and noise pollution.	
Enhancing Neuroimaging Genetics through Meta-Analysis (ENIGMA) http://enigma.ini.usc.edu	<ul style="list-style-type: none"> ▪ Medical data ▪ Genetic data ▪ Neuroimaging data 	NAI		NAI	NAI
Human Connectome Project (HCP) [HCP Aging dataset] https://www.humanconnectome.org	<ul style="list-style-type: none"> ▪ Clinical (Demographics, clinical and cognitive assessment) ▪ Lifestyle data ▪ Neuroimaging (MRI) 	NAI		Demographics: Age(years), Sex.	US
Baltimore Longitudinal Study of Aging (BLSA)** https://www.blsa.nih.gov	<ul style="list-style-type: none"> ▪ Clinical (Demographics, Weight history, Body measurements, Activity-related fatigue, Physical performance, Hearing, Vision, Grip strength, medical data) 	NAI		Demographics: Age(years), Education (years), Sex, Race, Ethnicity, Marital status, Living situation (n people). Health care access.	US
Health and Retirement Study (HRS)** https://hrs.isr.umich.edu	<ul style="list-style-type: none"> ▪ Clinical (Demographics, clinical and cognitive assessments) ▪ Health Data ▪ Genetic Data ▪ Biomarkers Data (Blood measures) ▪ Life History Data 	NAI		Demographics: Age(years), Education (years), Gender, Race, Ethnicity, Immigration status, School (years). Geographical and Residential History. Work History.	US

** dataset non-specific for brain health. SED: Socioeconomic disparities. SES: Socio-economic status. NAI: Non available information. UK: United Kingdom. US: United States of America.