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Supplementary 2. Outcomes of Prior Research

Classification	Outcomes	Study1 (KCDD)	Study2 (KFACS)	Study3 (shanghai aging study)	Study4 (KURE)	Study5 (PRIMIER)
(social) Demographics	Marital status (family structure, number of siblings, birth order)	O	O	O	O	O
	Residence area (occupation)	O	O	O	O	
	Education	O	O*	O	O	O
	Parental education			O		
	Race, Ethnicity					O
	Sex	O	O	O	O*	O
	Age	O	O	O	O*	O
	Work/employment/working hours	O	O	O		O
	Household income (family income)	O	O	O	O	O
Self-rated economic status				O	O	
Medical Service Utilization	Healthcare costs		O			
	Long-term care services		O			
	Unmet needs		O			
	Health literacy		O			
	Insurance status, likelihood of insurance billing					O
Medical History	Disease history (current comorbidity)	O	O	O	O	O
	Current polypharmacy, medication use (opioid medication use)		O		O	
	Family history	O		O	O	
	Women's health history (reproductive health history)			O		
	Past outpatient visit, hospitalization (admission history)		O		O	O
Lifestyle	Smoking	O	O	O	O	O
	Drinking	O	O	O	O	O
	Oral hygiene, dental check-up, panoramic radiography		O			
	Health check-up		O			
Sleep	Pittsburgh Sleep Quality Index (PSQI)	O		O		
	Sleep		O		O	

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Classification	Outcomes	Study1 (KCDD)	Study2 (KFACS)	Study3 (shanghai aging study)	Study4 (KURE)	Study5 (PRIMIER)
Physical Activity	Global Physical Activity Questionnaire (GPAQ)	0				
	IPAQ		0			
	IPAQ environmental module (short form)		0*		0	
	Physical exercise			0		0
	Health supplement use				0	
	Patient Activation Measure (PAM)					0
Diet	Dietary behaviors	0	0			
	Nutrition quotient (NQ)	0				
	Food Frequency Questionnaire (FFQ)	0		0		
	Nutritional risk (MNA)		0		0	
	Food security		0*			
	Simplified Nutritional Appetite Questionnaire (SNAQ)		0 [†]			
	Tea drinking			0		
	Fruit and vegetable Intake					0
Health-related Quality of Life (HRQOL)	SF-12 version 2 (self-rated health status)	0	0	0	0	
	EuroQoL 5-dimension (EQ-5D)	0	0	0		
	PROMIS-29, PROMIS-1					0
Anthropometric Measurements	Height	0	0	0	0	
	Weight	0	0	0	0	
	Height (self-reported)					0
	Weight (self-reported)					0
	Seated height			0		
	Waist circumference	0	0	0	0	
	Hip circumference	0		0	0	
	Upper arm circumference, calf circumference		0		0	
	Head circumference		0	0		
	Thigh circumference				0	
Leg length		0				
Physical Function	Timed up and go (TUG)		0		0	
	ADL		0	0	0	
	IADL		0		0	
	SPPB		0		0 [†]	
	Chair rise test		0		0	
	Jump power measurement using GFP				0 [†]	
	Gait speed		0			
	Grip strength	0	0		0	
Balance	Experience of falls, recent injury, fear of falling		0	0	0	
	Activities-specific Balance, Confidence scale		0			
Psychological Function - Psychological Stress	18-item Psychosocial Well-being Index-SF (PWI-SF)	0				
	Stress scale				0*	
	Perceived Stress Scale (PSS-4)					0

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Psychological Function - Mood	GDS-SF-K-15 (GDS-SF)		O		O	
	GDS-5				O	
	SGDS-K				O	
	Zung Self-Rating Anxiety Scale (ZSAS)			O		
	Center for Epidemiologic Studies Depression Scale (CESD)			O		
Cognitive Function	Global cognition: MMSE		O	O	O	
	Executive function: FAB		O			
	Processing speed: Trail Making Test A		O	O		
	Memory: word list memory, recall, recognition		O			
	Attention: digit span forward/digit span backward		O			
	Conflicting Instructions Task (Go/No Go Task)			O		
	Stick Test			O		
	Modified Common Objects Sorting Test			O		
	Auditory Verbal Learning Test			O		
	Renminbi (official currency of China) Test, translated from the EURO test			O		
	Dementia using DSM-IV criteria			O		
	APOE Genotype Assessment			O		
Vital Signs and Health Assessments	Blood pressure	O	O	O	O	
	Pulse wave	O	O		O	
	Heart rate variability	O				
	Neurological examination			O		
Health Status	Constipation		O ⁺			
	Physical resilience		O ⁺			
	Oral health: mastication, pronunciation difficulties		O			
	Current menstrual status, current women's health status	O	O*		O	
	Lower urinary tract symptoms (IPSS)				O	
	Self-rated pain score				O	
Social Function	Social network: PANT		O			
	Social capital: Participation in social activities (social activity)		O		O	
	Social support: ENRICHD		O			
	Social network (size, range, homophily, density, degree centrality, closeness, betweenness, overlapping)				O	
	Stressful life events				O	
Assessment for Traditional East Asian Medicine	Constitution (simplified Korea Sasang Constitution Diagnostic Questionnaire)	O				
	Cold-heat (Cold-Heat Pattern Identification, SF-CHQ)	O				
	Sub-health status (Mibyeong questionnaire)	O				
	Facial image	O				
	Body temperature	O				
	Iris testing	O				

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Classification	Outcomes	Study1 (KCDD)	Study2 (KFACS)	Study3 (shanghai aging study)	Study4 (KURE)	Study5 (PRIMIER)
Frailty and Sarcopenia Assessment	CHS (Fried phenotype): unintentional weight loss, hand grip strength, self-reported exhaustion, physical activity, gait speed		O			
	KLoSHA frailty index: SPPB, K-IADL, K-ADL, MMSE, albumin		O			
	FRAIL questionnaire: fatigue, resistance, ambulation, illness, loss of weight		O			
	Korean Frailty Index: eight items (hospitalization, self-rated health, polypharmacy, weight loss, depressed mood, incontinence, TUG, hearing/vision impairment)		O			
	Frailty scale: weakness, exhaustion, isolation		O			
	SOF index: chair-stand, energy (GDS), loss of weight		O		O	
	SARC-F: five items (strength, assistance with walking, rising from a chair, climbing stairs, falls)		O			
	Body Composition and Imaging Test	Body composition analysis (inbody)(Bioelectric impedance analysis:)	O	O		O
Dual energy X-ray absorptiometry (DEXA)			O		O*	
Ultrasound: muscle quality			O			
Joint replacement			O [†]			
Carotid intima-media thickness					O*	
QCT					O [†]	
Visual acuity: Snellen chart (corrected vision)			O			
Hearing: pure tone audiometry (500, 1000, 2000, 3000 and 4000 Hz)			O			
ECG			O	O	O	
Chest X-ray			O			
Lab test – Complete Blood Count	White blood cells	O	O*		O	
	Red blood cells	O	O*			
	Hemoglobin	O	O*		O	
	Hematocrit	O	O*			
	Mean corpuscular volume	O	O*			
	Mean corpuscular hemoglobin	O				
	Mean corpuscular hemoglobin concentration	O	O*			
	Red cell distribution width	O				
	Platelet count	O	O*		O	
Eosinophil count	O					
Lab test - Renal Panel	Blood urea nitrogen	O	O*		O	
	Creatinine	O	O*		O	
Lab test – Liver Function Test	Total protein	O	O*		O	
	Albumin	O	O*		O	
	Alkaline phosphatase	O	O*		O	
	Aspartate aminotransferase	O	O*		O	
	Alanine aminotransferase	O	O*		O	

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	Total bilirubin,	O	O*		O	
	Direct bilirubin,	O				
	r-GTP	O	O*			
	Creatine kinase		O*			
	Sodium		O*			
	Potassium		O*			
	Chloride		O*			
	Cystatin C,		O*			
	Hepatitis B virus surface antigen		O*			
Lab Test - Lipid Profile	Total cholesterol,	O	O*	O	O	
	Triglyceride,	O	O*	O	O	
	High density lipoprotein cholesterol,	O	O*	O	O	
	Low density lipoprotein cholesterol	O	O*	O	O	
Lab Test - Glucose Metabolism	Glucose, (fasting glucose,)	O	O*	O	O	
	HbA1C,	O	O*		O	
	Insulin	O	O*		O	
	Free testosterone		O*			
	Dehydroepiandrosterone,		O*			
	Insulin-like growth factor 1		O*			
	Cortisol		O*			
Lab Test - Thyroid Function	TSH	O	O*		O*	
	T4	O				
	T3	O				
	Free thyroxine		O*		O*	
	25-hydroxyvitamin D		O*		O	
	Vitamin B12		O*			
	Osteocalcin				O	
	Troponin T				O*	
	Urinalysis				O	
Lab Test - Inflammation	High sensitivity C reactive protein	O	O*		O	
	Growth/differentiation factor 15		O*			
Lab Test - Others	Calcium	O	O*		O	
	Phosphorus (Pi),		O*			
	Magnesium		O*			
Lab Test - Human Biological Materials	Blood: DNA, serum, peripheral blood mononuclear cell	O				
	Urine acid				O	
	Myostatin		O*			
	Adenosine monophosphate-activated protein kinase (AMPK) (phenotype)		O*			

* Only at baseline

† Only in follow up