

1) Depression Scales

1. The Center for Epidemiologic Studies Depression Scale (CES-D)

The Japanese version of the scale comprises 20 items with 4 options, the same as the original. This scale consists of 4 subscales as follows: somatic and retarded activity, depressed affect, positive affect, and interpersonal relations. Higher scores indicate higher depressive symptoms. A person with total score at and above 16 is supposed to have clinically significant depressive tendency.

CES-D :total score of 4 subscales (20 items, possible range 0-60)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	7.7	6.8	268	7.0	6.3	291	6.4	6.5	285	8.1	7.0	263	7.9	4.8	17	7.3	6.6	1124
Female	8.2	7.3	259	7.0	6.6	281	7.5	7.0	262	8.4	7.5	256	6.8	6.2	20	7.7	7.1	1078
Total	7.9	7.1	527	7.0	6.4	572	6.9	6.7	547	8.2	7.3	519	7.3	5.5	37	7.5	6.9	2202

CES-D subscale 1: somatic and retarded activity (6 items, possible range 0-18)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.2	2.5	272	2.2	2.4	294	2.1	2.5	290	2.7	2.9	271	2.8	2.2	17	2.3	2.6	1144
Female	2.5	2.5	261	2.2	2.4	284	2.5	2.5	267	2.8	2.8	263	2.8	3.3	20	2.5	2.6	1095
Total	2.4	2.5	533	2.2	2.4	578	2.3	2.5	557	2.8	2.8	534	2.8	2.8	37	2.4	2.6	2239

CES-D subscale 2: depressed affect (7 items, possible range 0-21)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	1.8	2.5	272	1.5	2.0	294	1.4	2.2	287	1.8	2.4	272	1.6	1.9	17	1.6	2.3	1142
Female	2.2	2.8	261	1.6	2.5	281	1.7	2.5	269	2.0	2.8	263	1.4	1.7	21	1.9	2.6	1095
Total	2.0	2.7	533	1.6	2.2	575	1.6	2.4	556	1.9	2.6	535	1.5	1.8	38	1.8	2.5	2237

CES-D subscale 3: positive affect (4 items, possible range 0-12)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	3.0	2.5	271	2.8	2.7	295	2.5	2.6	291	3.0	2.7	270	2.8	2.4	17	2.9	2.6	1144
Female	3.0	2.7	259	2.7	2.6	284	2.9	2.7	269	3.0	3.0	264	2.1	1.9	21	2.9	2.7	1097
Total	3.0	2.6	530	2.8	2.6	579	2.7	2.7	560	3.0	2.8	534	2.4	2.2	38	2.9	2.7	2241

CES-D subscale 4: interpersonal relations (2 items, possible range 0-6)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.3	0.7	271	0.3	0.7	294	0.3	0.7	290	0.3	0.7	270	0.6	0.9	17	0.3	0.7	1142
Female	0.3	0.8	261	0.2	0.6	284	0.3	0.8	270	0.3	0.8	266	0.1	0.5	21	0.3	0.7	1102
Total	0.3	0.8	532	0.3	0.7	578	0.3	0.7	560	0.3	0.8	536	0.3	0.7	38	0.3	0.7	2244

CES-D: parameter of distribution using cutoff score

		40-49yr		50-59yr		60-69yr		70-79yr		80yr-		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
under score of 16	Male	237	88.4	259	89.0	257	90.2	228	86.7	15	88.2	996	88.6
	Female	225	86.9	250	89.0	238	90.8	219	85.5	17	85.0	949	88.0
	Total	462	87.7	509	89.0	495	90.5	447	86.1	32	86.5	1945	88.3
at and above score of 16	Male	31	11.6	32	11.0	28	9.8	35	13.3	2	11.8	128	11.4
	Female	34	13.1	31	11.0	24	9.2	37	14.5	3	15.0	129	12.0
	Total	65	12.3	63	11.0	52	9.5	72	13.9	5	13.5	257	11.7

2. Geriatric Depression Scale (GDS)

GDS is another depression scale adopted in our research. Each of 15 items has yes/no response keys. Higher score indicates higher depressive symptoms. Total score of 6 and higher means significant depressive tendency. Only participants over 60 years old performed the scale in the NLS-LSA since this scale is designed specifically for elderly.

GDS (15 items. possible range 0-15. less than 60 years older unperformed)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	-	-	0	-	-	0	2.8	2.6	288	3.7	3.2	272	3.7	2.9	17	3.2	2.9	577
Female	-	-	0	-	-	0	3.4	2.8	270	3.9	2.9	258	3.7	2.8	20	3.6	2.8	548
Total	-	-	0	-	-	0	3.1	2.7	558	3.8	3.0	530	3.7	2.8	37	3.4	2.9	1125

GDS parameter of distribution using cutoff score

		60-69yr		70-79yr		80yr-		Total	
		N	%	N	%	N	%	N	%
under score of 6	Male	251	87.2	205	75.4	14	82.4	470	81.5
	Female	221	81.9	191	74.0	16	80.0	428	78.1
	Total	472	84.6	396	74.7	30	81.1	898	79.8
at and above score of 6	Male	37	12.8	67	24.6	3	17.6	107	18.5
	Female	49	18.1	67	26.0	4	20.0	120	21.9
	Total	86	15.4	134	25.3	7	18.9	227	20.2

2) Subjective Well-being

1. Life Satisfaction Index-K (LSI-K)

The LSI-K has 9 items with 2 or 3 point response format to measure overall subjective well-being. This scale also consists of 3 subscales include: satisfaction with life as a whole, psychological stability, and evaluation of own aging. Response to 3-point scale is dichotomized when calculating total score, so that the possible total score range is 0 to 9. Higher score indicates higher life satisfaction.

LSI-K: total score of 3 subscales (9 items. possible range 0-9)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	4.8	1.7	272	5.0	2.0	294	5.1	2.0	289	4.2	2.2	274	4.3	2.2	17	4.8	2.0	1146
Female	5.1	2.0	257	5.3	1.8	281	5.1	2.1	270	4.2	2.2	265	4.6	1.7	21	4.9	2.1	1094
Total	4.9	1.9	529	5.1	1.9	575	5.1	2.1	559	4.2	2.2	539	4.5	1.9	38	4.8	2.0	2240

LSI-K subscale 1: satisfaction with life as a whole (4 items. possible range 0-4)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	1.4	1.1	273	1.7	1.2	294	1.8	1.2	289	1.7	1.2	274	1.7	1.4	17	1.7	1.2	1147
Female	1.7	1.2	257	2.0	1.1	283	2.0	1.3	270	1.9	1.3	265	2.0	1.2	21	1.9	1.2	1096
Total	1.6	1.1	530	1.8	1.2	577	1.9	1.3	559	1.8	1.2	539	1.8	1.3	38	1.8	1.2	2243

LSI-K subscale 2: psychological stability (3 items. possible range 0-3)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	1.7	0.9	273	1.7	0.9	296	1.8	0.9	290	1.4	1.0	275	1.8	0.8	17	1.7	0.9	1151
Female	1.8	0.9	261	1.8	0.9	282	1.6	0.9	271	1.3	1.0	267	1.6	1.0	22	1.6	0.9	1103
Total	1.7	0.9	534	1.7	0.9	578	1.7	0.9	561	1.4	1.0	542	1.7	0.9	39	1.6	0.9	2254

LSI-K subscale 3: evaluation of own aging (2 items. possible range 0-2)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	1.6	0.6	272	1.6	0.6	296	1.4	0.7	290	1.0	0.7	275	0.8	0.8	17	1.4	0.7	1150
Female	1.6	0.6	261	1.5	0.6	284	1.4	0.7	271	1.0	0.8	268	1.0	0.8	22	1.4	0.7	1106
Total	1.6	0.6	533	1.6	0.6	580	1.4	0.7	561	1.0	0.8	543	0.9	0.8	39	1.4	0.7	2256

3) Personality

1. The Rosenberg Self-Esteem Scale

This scale comprises 10 items (5 options) to measure self-regard, an evaluation of one's worthiness. Higher score indicates higher self-esteem.

Rosenberg Self-Esteem Scale: total score of 10 items (possible range 10-50)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	28.8	4.1	271	29.3	4.3	295	29.6	4.4	290	28.6	4.6	271	30.2	5.1	17	29.1	4.4	1144
Female	27.7	4.5	260	27.6	4.4	284	27.4	4.9	270	27.7	4.8	265	29.0	4.8	21	27.6	4.7	1100
Total	28.3	4.3	531	28.5	4.4	579	28.6	4.8	560	28.2	4.7	536	29.6	4.9	38	28.4	4.6	2244

## 2. Neuroticism-Extraversion-Openness Five-Factor Inventory (NEO-FFI)

NEO-FFI is an abbreviated version of NEO-PI-R, which was designed to provide a general description of normal personality. This scale is comprised of 60 items with 5-point options. The five domains (factors) measured by NEO-FFI are as follows: neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness.

### NEO-FFI subscale 1: Neuroticism (12 items, possible range 0-48)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	21.6	6.1	271	20.8	6.0	296	19.9	5.5	290	20.3	5.9	275	19.9	6.3	17	20.6	5.9	1149
Female	22.9	6.7	260	21.7	5.9	284	21.6	5.7	270	21.5	6.0	264	20.5	4.4	21	21.9	6.1	1099
Total	22.3	6.4	531	21.2	6.0	580	20.7	5.7	560	20.9	6.0	539	20.2	5.3	38	21.3	6.0	2248

### NEO-FFI subscale 2: Extraversion (12 items, possible range 0-48)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	23.8	5.5	271	24.5	5.3	296	24.8	5.4	290	24.3	5.0	275	23.3	5.5	17	24.3	5.3	1149
Female	24.8	5.7	260	25.7	5.7	283	26.0	5.7	269	25.1	6.0	263	26.3	4.6	21	25.4	5.8	1096
Total	24.3	5.7	531	25.1	5.5	579	25.4	5.6	559	24.7	5.5	538	25.0	5.2	38	24.9	5.6	2245

### NEO-FFI subscale 3: Openness to Experience (12 items, possible range 0-48)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	27.4	4.5	271	26.7	4.8	296	25.8	4.5	289	24.7	4.5	271	23.3	4.4	17	26.1	4.7	1144
Female	27.6	4.3	260	27.0	4.5	284	26.1	4.6	269	24.9	4.5	265	24.9	4.3	21	26.4	4.6	1099
Total	27.5	4.4	531	26.9	4.7	580	25.9	4.6	558	24.8	4.5	536	24.2	4.4	38	26.2	4.6	2243

### NEO-FFI subscale 4: Agreeableness (12 items, possible range 0-48)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	29.9	4.4	271	30.7	4.4	296	31.1	4.4	287	31.4	4.2	271	32.6	5.1	17	30.8	4.4	1142
Female	32.0	4.7	261	33.0	4.7	283	32.3	4.3	271	33.3	4.4	265	33.9	4.7	21	32.7	4.6	1101
Total	30.9	4.7	532	31.8	4.7	579	31.7	4.4	558	32.3	4.4	536	33.3	4.9	38	31.7	4.6	2243

NEO-FFI subscale 5: Consciousness (12 items, possible range 0-48)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	27.7	5.5	271	28.7	5.2	296	29.5	5.2	289	29.7	5.0	271	28.2	6.1	17	28.9	5.3	1144
Female	27.9	5.3	261	28.4	5.1	283	29.0	4.9	271	29.2	5.4	264	30.6	5.2	21	28.6	5.2	1100
Total	27.8	5.4	532	28.5	5.1	579	29.3	5.0	560	29.4	5.2	535	29.6	5.6	38	28.8	5.2	2244

### 3. Locus of Control

The eight-item scale (5 options) is used to measure cognitive aspects about the self and the environment. Persons with higher score in the scale are supposed to consider themselves to be in control of what happens in life.

Locus of control (total score of 8 items. possible range 8-40)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	27.2	4.5	273	28.0	4.4	296	27.9	4.5	290	27.0	4.2	274	25.7	4.1	17	27.5	4.4	1150
Female	26.5	4.0	260	25.9	4.3	284	25.9	4.1	270	25.6	4.0	265	25.8	3.4	20	25.9	4.1	1099
Total	26.9	4.3	533	26.9	4.5	580	26.9	4.4	560	26.3	4.2	539	25.7	3.7	37	26.8	4.3	2249



#### 4. Type A Behavior Patterns

This scale comprises 23 items with 4-point options to measure Type A behavior patterns. Type A personalities are characterized by intensity, a high degree of competitiveness, hostility and impatience. Higher score indicates stronger Type A personality tendencies.

Type A Behavior Patterns (total score of 23 items, possible range 0-69)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	34.1	8.2	271	34.5	7.8	296	32.6	8.5	290	30.1	9.1	273	28.0	8.3	17	32.8	8.5	1147
Female	32.9	8.0	261	30.6	8.3	284	30.7	8.1	270	27.3	9.0	263	28.9	13.0	20	30.3	8.6	1098
Total	33.5	8.1	532	32.6	8.2	580	31.7	8.3	560	28.7	9.1	536	28.5	10.9	37	31.6	8.7	2245

#### 4) Social Relations

##### 1. Social Support from Friends and Acquaintances

Social support from friends and acquaintances is measured using 10-item scale (5 options). Higher score of the scale indicates higher perception of support from his/her social network excluding family.

Social support from friends and acquaintances (total score of 10 items, possible range 10-50)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	29.4	4.5	272	29.6	5.6	294	29.8	5.9	290	28.5	6.2	271	27.3	5.7	17	29.3	5.6	1144
Female	30.6	5.0	261	31.2	5.3	284	31.0	5.3	269	29.1	6.8	267	29.5	6.8	21	30.5	5.7	1102
Total	30.0	4.8	533	30.4	5.5	578	30.4	5.6	559	28.8	6.5	538	28.5	6.3	38	29.9	5.7	2246

##### 2. Social Exchanges

Social exchanges are measured using 12-item scale (4 options). This scale assesses three functional properties of social exchange (emotional support, instrumental support, and negative exchange). Exchanges with two specific social domains (family and others) are separately probed in the scale. Higher scores of the scale means higher perception of each exchange.

Social exchanges with family members, subscale 1: emotional support (4 items, possible range 4-16)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	12.2	2.2	271	12.3	2.2	296	12.6	2.2	289	12.4	2.3	273	11.8	2.9	17	12.3	2.2	1146
Female	12.6	2.2	261	12.7	2.0	283	12.7	2.3	270	12.4	2.5	263	12.1	2.4	21	12.6	2.2	1098
Total	12.4	2.2	532	12.5	2.1	579	12.6	2.2	559	12.4	2.4	536	12.0	2.6	38	12.5	2.2	2244

Social exchanges with family members, subscale 2: instrumental support (4 items, possible range 4-16)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	12.2	2.1	271	12.1	2.0	296	12.4	2.1	289	12.1	2.3	273	11.2	2.5	17	12.2	2.2	1146
Female	11.8	2.0	261	12.1	2.1	284	12.1	2.1	270	12.0	2.3	264	12.0	2.1	21	12.0	2.1	1100
Total	12.0	2.1	532	12.1	2.0	580	12.2	2.1	559	12.0	2.3	537	11.7	2.3	38	12.1	2.1	2246

Social exchanges with family members, subscale 3: negative exchanges (4 items, possible range 4-16)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	9.7	2.3	271	9.4	2.2	296	9.3	2.3	289	8.6	2.3	274	8.0	2.6	17	9.2	2.3	1147
Female	10.1	2.3	261	9.2	2.2	284	8.9	2.4	269	8.3	2.6	264	7.7	2.4	21	9.1	2.5	1099
Total	9.9	2.3	532	9.3	2.2	580	9.1	2.3	558	8.4	2.4	538	7.8	2.4	38	9.2	2.4	2246

Social exchanges with family members, subscale 1: emotional support (4 items, possible range 4-16)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	11.0	2.3	271	11.0	2.5	295	10.8	2.8	289	10.5	2.7	271	9.5	3.0	17	10.8	2.6	1143
Female	12.4	2.3	261	12.3	2.3	284	12.0	2.3	269	11.6	2.8	263	11.0	2.8	21	12.1	2.4	1098
Total	11.7	2.4	532	11.6	2.5	579	11.4	2.6	558	11.1	2.8	534	10.4	3.0	38	11.4	2.6	2241

Social exchanges with family members, subscale 2: instrumental support (4 items, possible range 4-16)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	8.8	2.6	271	8.8	2.6	295	8.8	2.8	289	8.8	2.8	270	8.8	2.4	17	8.8	2.7	1142
Female	9.6	2.8	260	9.9	2.8	284	9.5	2.7	269	9.2	3.0	263	9.7	3.5	21	9.5	2.8	1097
Total	9.2	2.7	531	9.3	2.8	579	9.1	2.8	558	9.0	2.9	533	9.3	3.0	38	9.2	2.8	2239

Social exchanges with family members, subscale 3: negative exchanges (4 items, possible range 4-16)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	8.9	2.2	270	8.5	2.3	295	7.8	2.4	290	6.9	2.3	273	6.8	2.3	17	8.0	2.4	1145
Female	8.0	2.3	261	7.8	2.3	284	7.2	2.1	269	6.5	2.1	262	6.0	2.5	21	7.3	2.3	1097
Total	8.5	2.3	531	8.1	2.4	579	7.5	2.3	559	6.7	2.2	535	6.4	2.4	38	7.7	2.4	2242

5) Stress-Related Factors

1. Life Events Checklist

Forty-three items are picked up from some traditional checklists to estimate stressful event experiences. Participants are asked to check off the events they confronted in recent past (between first and second examinations in the NLS-LSA).

Total number of experienced events is calculated by summing up the responses to the list.

Total number of life events experienced between the surveys (possible range 0-44)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.9	2.3	270	3.4	2.3	295	3.6	2.3	290	2.8	1.9	273	3.6	1.8	17	3.2	2.2	1145
Female	3.0	2.4	261	3.5	2.3	284	2.8	1.8	269	2.5	1.6	266	2.5	2.0	22	2.9	2.1	1102
Total	3.0	2.3	531	3.4	2.3	579	3.2	2.1	559	2.6	1.8	539	2.9	2.0	39	3.1	2.2	2247

## 2. Hassles scale

Hassles are stressors that have chronic and daily characteristics compared to life events. The hassles scale we adopt in the NLS-LSA includes thirty-four items with 3-point options. Persons with higher total score of the scale are supposed to be under much stress.

Hassles scale (34 items, possible range 34-102)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	50.9	10.1	269	50.1	9.6	293	47.1	9.4	289	46.8	9.4	266	46.6	7.0	17	48.7	9.7	1134
Female	50.3	9.6	253	48.4	9.4	277	47.9	9.2	262	46.2	8.5	257	43.7	8.1	22	48.1	9.3	1071
Total	50.6	9.9	522	49.2	9.5	570	47.5	9.3	551	46.5	9.0	523	44.9	7.7	39	48.4	9.5	2205

### 3. Stress Coping Scale

This scale includes 31 items (4 options) each of which comes under one of the 5 subscales as follows  
: active problem solving, escape avoidance, seeking social support, distancing, and suppressing behavior and affect.  
Higher score means frequent use of each coping strategy.

#### Stress coping scale, subscale 1: Planful Problem Solving (9 items, possible range 9-36)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	20.0	4.9	271	20.1	5.5	295	20.5	5.6	286	19.8	5.6	258	20.4	5.2	17	20.1	5.4	1127
Female	17.7	4.9	258	17.1	5.2	280	18.0	5.1	261	17.5	5.8	252	18.4	5.8	19	17.6	5.3	1070
Total	18.9	5.0	529	18.6	5.6	575	19.3	5.5	547	18.7	5.8	510	19.4	5.5	36	18.9	5.5	2197

#### Stress coping scale, subscale 2: Distancing (5 items, possible range 5-20)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	11.0	2.6	271	11.1	2.6	294	11.5	2.7	287	11.3	3.0	259	12.1	2.8	17	11.2	2.7	1128
Female	11.0	2.6	259	10.9	3.1	282	11.2	3.0	260	11.1	3.2	252	11.5	3.8	19	11.0	3.0	1072
Total	11.0	2.6	530	11.0	2.9	576	11.3	2.8	547	11.2	3.1	511	11.8	3.3	36	11.1	2.9	2200

#### Stress coping scale, subscale 3: Support Seeking (5 items, possible range 5-20)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	8.0	2.9	271	7.9	2.8	295	8.1	2.8	287	8.0	2.8	259	9.1	3.5	17	8.0	2.8	1129
Female	8.8	2.9	259	8.4	2.9	282	8.1	2.7	261	7.8	3.0	252	7.1	2.9	19	8.3	2.9	1073
Total	8.4	2.9	530	8.2	2.9	577	8.1	2.7	548	7.9	2.9	511	8.0	3.3	36	8.2	2.9	2202

#### Stress coping scale, subscale 4: Escape Avoidance (7 items, possible range 7-28)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	10.6	2.6	271	11.9	3.2	295	12.6	3.4	287	13.7	3.7	258	13.4	3.4	17	12.2	3.4	1128
Female	11.6	3.1	259	12.6	3.7	279	13.8	3.6	260	14.2	4.1	253	14.9	4.4	19	13.1	3.8	1070
Total	11.1	2.9	530	12.2	3.5	574	13.2	3.5	547	14.0	3.9	511	14.2	4.0	36	12.6	3.6	2198

Stress coping scale, subscale 5: Resigning (5 items, possible range 5-20)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	9.4	2.9	270	9.9	3.0	295	9.6	2.7	287	10.0	3.1	258	10.9	4.0	17	9.8	2.9	1127
Female	10.9	3.2	259	10.5	3.4	281	10.5	3.3	259	10.2	3.3	250	9.9	3.4	19	10.5	3.3	1068
Total	10.1	3.1	529	10.2	3.2	576	10.0	3.0	546	10.1	3.2	508	10.4	3.7	36	10.1	3.1	2195

6) ADL Scales

1. The Tokyo Metropolitan Institute of Gerontology (TMIG) Index of Competence

This scale comprises thirteen items to measure higher physical and social functions such as instrumental activities of daily living (IADL). Each item has Yes (1)/No (0) response options. Higher score indicates higher competence level.

TMIG index of competence: total score of 13 items (possible range 0-13)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	12.2	1.1	273	12.0	1.3	296	12.1	1.3	290	12.1	1.3	275	11.2	1.5	17	12.1	1.3	1151
Female	12.5	0.9	261	12.6	0.7	283	12.4	1.1	270	12.3	1.4	266	11.5	2.0	21	12.4	1.1	1101
Total	12.4	1.0	534	12.3	1.1	579	12.2	1.2	560	12.2	1.4	541	11.3	1.8	38	12.3	1.2	2252

2. The Katz Index

This scale generates the index of basic ADLs. The index permits ranking of individuals according to adequacy of performance in six functions (bathing, dressing, going to toilet, transferring, continence, and feeding). Adequacy is expressed as a grade (A to G). Level A means overall independence in the functions, and the opposite pole is level G, which means general dependence in ADL. None of the participants in the first-wave sample were graded as level D to G.

Katz index

		40-49yr		50-59yr		60-69yr		70-79yr		80yr-		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
level A	Male	272	100.0	294	99.7	288	99.3	266	97.8	17	100.0	1137	99.2
	Female	261	100.0	284	100.0	269	99.6	259	96.6	20	90.9	1093	98.9
	Total	533	100.0	578	99.8	557	99.5	525	97.2	37	94.9	2230	99.1
level B	Male	0	0	0	0	2	0.7	6	2.2	0	0	8	0.7
	Female	0	0	0	0	1	0.4	7	2.6	1	4.5	9	0.8
	Total	0	0	0	0	3	0.5	13	2.4	1	2.6	17	0.8
level C	Male	0	0	1	0.3	0	0	0	0	0	0	1	0.1
	Female	0	0	0	0	0	0	2	0.7	0	0	2	0.2
	Total	0	0	1	0.2	0	0	2	0.4	0	0	3	0.1
level D	Male	0	0	0	0	0	0	0	0	0	0	0	0
	Female	0	0	0	0	0	0	0	0	1	4.5	1	0.1
	Total	0	0	0	0	0	0	0	0	1	2.6	1	0.0



7) Intelligence and Cognitive Function Scales

1. Wechsler Adult Intelligence Scale-Revised Short Forms (WAIS-R-SF)

This short form of WAIS-R provides cost-effective and useful estimates of intelligence particularly for elderly participants since their attention and motivation could diminish easily if testing becomes prolonged. WAIS-R-SF has the following four subtests: information, similarities, picture completion, and digit symbol. Estimated intelligence quotient (EIQ) is derived from all four subtests. Intelligence level of individuals are ranked according to EIQ scores as low ( $EIQ < 80$ ), middle ( $80 \leq EIQ < 120$ ), and high ( $120 \leq EIQ$ ).

WAIS-R-SF: estimated total score with four-subtest full scale (possible range 6-76)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	44.9	6.8	272	45.9	7.3	293	44.4	8.0	289	44.3	8.3	272	44.6	8.3	17	44.9	7.7	1143
Female	44.7	7.2	260	44.5	7.6	284	40.6	7.5	269	40.1	8.5	269	35.8	7.6	20	42.3	8.0	1102
Total	44.8	7.0	532	45.2	7.5	577	42.6	8.0	558	42.2	8.6	541	39.9	9.0	37	43.6	7.9	2245

WAIS-R-SF: estimated intelligence quotient (EIQ) with four-subtest full scale

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	108.1	13.0	272	110.1	12.4	293	107.4	13.1	289	106.9	13.3	272	107.4	13.3	17	108.1	13.0	1143
Female	108.0	13.6	260	107.8	12.9	284	101.0	12.3	269	100.1	13.6	269	93.2	12.2	20	104.1	13.7	1102
Total	108.1	13.3	532	109.0	12.7	577	104.3	13.1	558	103.5	13.8	541	99.7	14.4	37	106.1	13.5	2245

WAIS-R-SF: parameter of distribution by EIQ levels

		40-49yr		50-59yr		60-69yr		70-79yr		80yr-		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
low ( $EIQ < 80$ )	Male	6	2.2	5	1.7	2	0.7	4	1.5	0	0	17	1.5
	Female	4	1.5	8	2.8	16	5.9	20	7.4	2	10.0	50	4.5
	Total	10	1.9	13	2.3	18	3.2	24	4.4	2	5.4	67	3.0
middle ( $80 \leq EIQ < 120$ )	Male	211	77.6	220	75.1	227	78.5	222	81.6	13	76.5	893	78.1
	Female	210	80.8	221	77.8	231	85.9	228	84.8	18	90.0	908	82.4
	Total	421	79.1	441	76.4	458	82.1	450	83.2	31	83.8	1801	80.2
high ( $120 \leq EIQ$ )	Male	55	20.2	68	23.2	60	20.8	46	16.9	4	23.5	233	20.4
	Female	46	17.7	55	19.4	22	8.2	21	7.8	0	0	144	13.1
	Total	101	19.0	123	21.3	82	14.7	67	12.4	4	10.8	377	16.8

WAIS-R-SF subtest 1: information (29 items. possible range 0-29)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	17.6	4.8	272	17.3	5.3	294	16.0	5.3	291	14.9	5.3	274	15.2	4.8	17	16.5	5.3	1148
Female	15.8	5.5	260	14.7	5.4	284	12.7	5.3	269	11.9	5.3	269	10.1	3.6	22	13.7	5.6	1104
Total	16.7	5.2	532	16.0	5.5	578	14.5	5.6	560	13.4	5.5	543	12.3	4.8	39	15.1	5.6	2252

WAIS-R-SF subtest 2: similarities (14 items. possible range 0-28)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	17.4	4.1	272	15.3	4.9	294	13.1	5.5	291	11.7	5.5	274	13.2	5.1	17	14.4	5.5	1148
Female	16.8	4.2	260	14.7	4.9	284	11.9	4.7	269	10.1	5.4	269	8.0	5.9	21	13.2	5.5	1103
Total	17.1	4.1	532	15.0	4.9	578	12.5	5.2	560	10.9	5.5	543	10.3	6.1	38	13.8	5.5	2251

WAIS-R-SF subtest 3: picture completion (21 items. possible range 0-21)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	13.7	2.2	272	12.6	2.6	293	11.3	3.2	291	10.4	3.5	274	10.4	3.9	17	12.0	3.2	1147
Female	13.4	2.6	260	12.1	3.0	284	9.5	3.4	269	8.3	3.9	269	6.6	3.6	21	10.7	3.8	1103
Total	13.5	2.4	532	12.3	2.8	577	10.4	3.4	560	9.4	3.8	543	8.3	4.1	38	11.4	3.6	2250

WAIS-R-SF subtest 4: digit symbol (possible range 0-93)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	66.7	12.0	272	58.9	11.1	293	48.0	11.0	289	38.3	9.7	272	36.1	10.1	17	52.8	15.4	1143
Female	70.4	10.8	260	61.3	11.0	284	46.3	11.1	269	37.2	9.3	269	32.8	8.7	20	53.4	16.7	1102
Total	68.5	11.6	532	60.1	11.1	577	47.2	11.1	558	37.8	9.5	541	34.3	9.4	37	53.1	16.1	2245

2. Mini Mental State Examination (MMSE)

MMSE is a brief, easily-scored test of several cognitive functions. This scale comprises questions concerning orientation in place and time, immediate and delayed recall of three words, attention and calculation, language and praxis, and visual construction.

Cognitive impaired person might fall in the total score of 23 or less in the scale.

Only participants over 60 years old administer this scale because of the characteristic of the scale as a screening test for dementia.

MMSE: total score of 30 items (possible range 0-30. less than 60 years older unperformed)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr--			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	-	-	0	-	-	0	28.2	1.7	287	27.5	2.0	271	27.6	2.0	17	27.8	1.9	575
Female	-	-	0	-	-	0	28.2	1.7	268	27.6	2.3	268	26.7	2.7	22	27.9	2.1	558
Total	-	-	0	-	-	0	28.2	1.7	555	27.5	2.2	539	27.1	2.4	39	27.8	2.0	1133

MMSE: parameter of distribution using cutoff score

		60-69yr		70-79yr		80yr--		Total	
		N	%	N	%	N	%	N	%
score of 24 and over	Male	278	96.9	251	92.6	15	88.2	544	94.6
	Female	258	96.3	245	91.4	19	86.4	522	93.5
	Total	536	96.6	496	92.0	34	87.2	1066	94.1
score of 23 or less	Male	9	3.1	20	7.4	2	11.8	31	5.4
	Female	10	3.7	23	8.6	3	13.6	36	6.5
	Total	19	3.4	43	8.0	5	12.8	67	5.9

# **VIII. Visual and Auditory Examinations**