

2) Serum fatty acid

Dihomo-gamma-linolenic acid, DHLA ( $\mu\text{g/ml}$ )

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	30.6	11.2	291	29.7	10.8	281	29.8	9.5	283	28.2	9.0	282	29.6	10.2	1137
Female	27.0	9.5	281	30.4	10.6	277	34.0	11.2	285	35.1	12.1	281	31.7	11.3	1124
Total	28.9	10.5	572	30.1	10.7	558	31.9	10.6	568	31.7	11.2	563	30.6	10.8	2261

Arachidonic acid, AA ( $\mu\text{g/ml}$ )

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	151.7	39.4	291	149.6	36.1	281	144.7	36.8	283	138.7	31.0	282	146.2	36.3	1137
Female	147.7	32.2	281	155.3	33.2	277	156.3	36.4	285	154.9	37.2	281	153.6	35.0	1124
Total	149.7	36.1	572	152.5	34.8	558	150.5	37.1	568	146.8	35.2	563	149.9	35.8	2261

Eicosapentaenoic acid, EPA ( $\mu\text{g/ml}$ )

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	56.1	29.8	291	80.2	44.4	281	69.7	35.8	283	71.6	40.6	282	69.3	38.9	1137
Female	51.8	28.3	281	69.6	33.5	277	71.2	36.2	285	67.5	34.9	281	65.0	34.2	1124
Total	54.0	29.1	572	74.9	39.7	558	70.4	35.9	568	69.6	37.9	563	67.2	36.7	2261

Docosahexaenoic acid, DHA ( $\mu\text{g/ml}$ )

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	128.6	48.8	291	158.4	61.5	281	148.6	50.4	283	146.8	46.3	282	145.5	53.1	1137
Female	117.4	33.9	281	147.3	38.9	277	157.2	46.8	285	155.2	45.4	281	144.3	44.5	1124
Total	123.1	42.5	572	152.9	51.8	558	152.9	48.8	568	151.0	46.0	563	144.9	49.0	2261

EPA/AA ratio

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.38	0.19	291	0.55	0.29	281	0.49	0.26	283	0.53	0.30	282	0.49	0.27	1137
Female	0.35	0.19	281	0.46	0.23	277	0.47	0.24	285	0.45	0.24	281	0.43	0.23	1124
Total	0.37	0.19	572	0.50	0.27	558	0.48	0.25	568	0.49	0.28	563	0.46	0.25	2261

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3) Complete blood cell count

White blood cell count ( $/\mu\text{l}$ )

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	6331.3	1948.0	291	6088.6	1681.0	281	5951.4	1446.4	282	5872.8	1569.3	283	6063.0	1680.7	1137
Female	5379.4	1577.1	281	5083.8	1343.5	278	5352.6	1276.4	285	5519.2	1594.4	281	5334.5	1460.8	1125
Total	5863.6	1836.8	572	5588.9	1602.1	559	5650.4	1394.9	567	5696.6	1590.3	564	5700.7	1616.4	2262

Red blood cell count ( $\times 10000/\mu\text{l}$ )

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	511.3	35.5	291	501.5	40.6	281	493.7	41.1	282	482.7	45.8	283	497.4	42.2	1137
Female	454.7	29.6	281	461.4	34.2	278	459.5	38.8	285	452.2	41.9	281	456.9	36.6	1125
Total	483.5	43.3	572	481.5	42.6	559	476.5	43.5	567	467.5	46.4	564	477.3	44.4	2262

Hemoglobin (g/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	15.9	1.0	291	15.7	1.2	281	15.5	1.1	282	15.0	1.4	283	15.5	1.2	1137
Female	13.2	1.4	281	13.8	1.0	278	13.9	1.1	285	13.6	1.2	281	13.6	1.2	1125
Total	14.6	1.8	572	14.8	1.5	559	14.7	1.4	567	14.3	1.5	564	14.6	1.6	2262

Hematocrit (%)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	48.3	3.0	291	47.8	3.5	281	47.2	3.4	282	46.1	4.0	283	47.4	3.6	1137
Female	41.4	3.7	281	42.9	3.1	278	43.2	3.4	285	42.6	3.5	281	42.5	3.5	1125
Total	44.9	4.8	572	45.4	4.1	559	45.2	4.0	567	44.3	4.2	564	44.9	4.3	2262

MCV (f1)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	94.6	4.5	291	95.5	4.6	281	95.8	4.6	282	95.6	4.8	283	95.4	4.6	1137
Female	91.2	6.9	281	93.0	4.2	278	94.1	4.3	285	94.4	4.4	281	93.2	5.2	1125
Total	92.9	6.1	572	94.3	4.6	559	95.0	4.5	567	95.0	4.7	564	94.3	5.1	2262

MCH (pg)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	31.1	1.5	291	31.4	1.6	281	31.4	1.7	282	31.2	1.8	283	31.3	1.6	1137
Female	29.1	2.9	281	29.9	1.6	278	30.3	1.5	285	30.2	1.6	281	29.9	2.0	1125
Total	30.1	2.5	572	30.7	1.8	559	30.8	1.7	567	30.7	1.8	564	30.6	2.0	2262

MCHC (%)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	32.8	0.9	291	32.9	1.0	281	32.8	0.9	282	32.6	1.0	283	32.8	1.0	1137
Female	31.9	1.4	281	32.1	1.0	278	32.2	0.9	285	32.0	0.9	281	32.1	1.1	1125
Total	32.4	1.3	572	32.5	1.1	559	32.5	0.9	567	32.3	1.0	564	32.4	1.1	2262

Platelet count (x10000/ $\mu$ l)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	22.8	5.2	291	21.8	5.3	281	21.4	6.0	282	20.0	5.5	283	21.5	5.6	1137
Female	24.3	6.8	281	22.9	5.5	278	23.2	7.5	285	22.6	5.9	281	23.2	6.5	1125
Total	23.5	6.1	572	22.4	5.5	559	22.3	6.9	567	21.3	5.9	564	22.4	6.1	2262

4) Sex hormone

Estradiol (pg/ml)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	31.5	11.0	142	28.7	8.8	135	30.8	10.8	129	30.8	13.2	136	30.4	11.1	542
Female	84.3	80.8	131	20.2	41.4	125	7.2	7.9	128	6.9	8.1	129	30.0	56.1	513
Total	56.8	62.3	273	24.6	29.6	260	19.1	15.1	257	19.2	16.2	265	30.2	39.9	1055

Total testosterone (ng/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	511.0	154.3	142	524.6	183.9	135	512.1	167.5	129	568.2	184.7	136	529.0	174.0	542
Female	25.0	49.6	131	18.5	10.7	125	21.4	12.5	128	26.0	37.8	129	22.8	32.5	513
Total	277.8	269.6	273	281.3	285.9	260	267.7	273.0	257	304.3	303.1	265	282.9	283.1	1055

Free testosterone (pg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	16.0	4.9	142	14.5	3.9	135	11.9	3.5	129	11.3	3.7	136	13.5	4.5	542
Female	0.6	1.9	131	0.3	0.4	125	0.4	0.5	128	0.5	1.0	129	0.4	1.1	513
Total	8.6	8.6	273	7.7	7.6	260	6.1	6.3	257	6.0	6.1	265	7.1	7.3	1055

Sex hormone binding globulin (nmol/l)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	44.3	17.4	142	51.7	25.4	135	62.3	24.3	129	77.0	26.1	136	58.6	26.5	542
Female	81.8	33.7	131	77.8	34.4	125	80.6	31.9	128	91.6	41.0	129	83.0	35.7	513
Total	62.3	32.4	273	64.2	32.7	260	71.4	29.8	257	84.1	34.9	265	70.5	33.6	1055

## 5) Disease markers

## Platelet-activating factor acetylhydase PAF-AH

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	449.2	176.8	288	466.2	186.3	279	479.9	181.2	279	470.3	194.2	280	466.3	184.8	1126
Female	392.9	142.7	279	419.8	154.8	276	442.8	169.4	283	439.5	182.6	279	423.8	164.1	1117
Total	421.5	163.3	567	443.1	172.8	555	461.3	176.2	562	455.0	189.0	559	445.2	176.0	2243

## Low density lipoprotein cholesterol LDL-C (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	131.7	30.5	288	133.6	36.0	279	132.6	31.6	279	129.3	32.0	280	131.8	32.6	1126
Female	124.6	31.2	279	143.3	31.8	276	144.2	36.3	283	145.7	34.8	279	139.5	34.7	1117
Total	128.2	31.1	567	138.5	34.3	555	138.4	34.5	562	137.5	34.4	559	135.6	33.8	2243

## Apo A-I (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	142.0	29.2	288	144.6	27.7	279	139.8	27.8	279	141.5	26.7	280	142.0	27.9	1126
Female	158.9	26.1	279	157.5	24.1	276	152.9	27.2	283	152.9	27.7	279	155.5	26.4	1117
Total	150.3	28.9	567	151.0	26.7	555	146.4	28.3	562	147.2	27.8	559	148.7	28.0	2243

## Apo A-II (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	39.6	5.8	288	39.1	6.2	279	37.3	5.6	279	35.7	5.3	280	37.9	5.9	1126
Female	37.4	4.9	279	38.3	5.1	276	38.2	5.9	283	37.3	6.2	279	37.8	5.5	1117
Total	38.5	5.5	567	38.7	5.7	555	37.7	5.7	562	36.5	5.8	559	37.8	5.7	2243

Apo B (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	106.7	22.8	288	110.4	26.2	279	109.9	22.1	279	106.3	23.8	280	108.3	23.8	1126
Female	97.2	22.4	279	111.8	21.8	276	115.6	25.3	283	116.4	24.8	279	110.2	24.9	1117
Total	102.0	23.1	567	111.1	24.1	555	112.8	23.9	562	111.3	24.8	559	109.3	24.4	2243

Apo C-II (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	4.52	1.41	288	4.73	1.47	279	4.79	1.29	279	4.51	1.16	280	4.64	1.34	1126
Female	3.92	1.26	279	4.63	1.11	276	4.82	1.22	283	4.84	1.13	279	4.55	1.24	1117
Total	4.22	1.37	567	4.68	1.30	555	4.81	1.26	562	4.67	1.16	559	4.60	1.29	2243

Apo C-III (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	11.15	3.18	288	11.73	3.95	279	11.02	2.83	279	10.27	2.42	280	11.04	3.19	1126
Female	9.97	2.53	279	10.96	2.26	276	11.33	2.86	283	11.03	2.50	279	10.82	2.60	1117
Total	10.57	2.94	567	11.35	3.24	555	11.17	2.85	562	10.65	2.49	559	10.93	2.91	2243

Apo E (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	4.58	1.47	288	4.84	1.54	279	4.67	1.11	279	4.60	0.94	280	4.67	1.29	1126
Female	4.50	1.07	279	5.03	1.03	276	5.15	1.27	283	5.36	1.22	279	5.01	1.19	1117
Total	4.54	1.28	567	4.93	1.31	555	4.91	1.22	562	4.98	1.15	559	4.84	1.25	2243

Lipoprotein (a) (mg/dl)

	40-49yr			50-59yr			60-69yr			70-79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	13.6	17.8	286	15.1	18.6	279	16.1	21.3	279	14.6	15.6	280	14.9	18.4	1124
Female	12.7	13.2	279	16.7	18.4	276	17.1	19.3	283	18.8	21.0	279	16.3	18.3	1117
Total	13.2	15.7	565	15.9	18.5	555	16.6	20.3	562	16.7	18.6	559	15.6	18.4	2241

6)Urine analysis

Urine analysis (Semiquantitative urine test tape, Uriace, Termo, Inc.,)

Hemoglobin

		40 - 49yr		50 - 59yr		60 - 69yr		70 - 80yr		Total	
		N	%	N	%	N	%	N	%	N	%
negative	Male	268	93.7	263	94.9	256	91.8	243	90.0	1030	92.6
	Female	212	85.5	211	78.1	211	76.7	214	79.9	848	79.9
	Total	480	89.9	474	86.7	467	84.3	457	84.9	1878	86.4
10/ $\mu$ l	Male	13	4.5	10	3.6	15	5.4	21	7.8	59	5.3
	Female	23	9.3	41	15.2	43	15.6	37	13.8	144	13.6
	Total	36	6.7	51	9.3	58	10.5	58	10.8	203	9.3
50/ $\mu$ l	Male	5	1.7	4	1.4	6	2.2	5	1.9	20	1.8
	Female	11	4.4	15	5.6	20	7.3	17	6.3	63	5.9
	Total	16	3.0	19	3.5	26	4.7	22	4.1	83	3.8
250/ $\mu$ l	Male	0	0	0	0	2	0.7	1	0.4	3	0.3
	Female	2	0.8	3	1.1	1	0.4	0	0	6	0.6
	Total	2	0.4	3	0.5	3	0.5	1	0.2	9	0.4

Occult blood

		40 - 49yr		50 - 59yr		60 - 69yr		70 - 80yr		Total	
		N	%	N	%	N	%	N	%	N	%
negative	Male	257	89.9	247	89.5	246	88.2	236	87.4	986	88.7
	Female	214	86.3	231	85.6	231	84.0	205	76.5	881	83.0
	Total	471	88.2	478	87.5	477	86.1	441	82.0	1867	86.0
10/ $\mu$ l	Male	26	9.1	24	8.7	26	9.3	31	11.5	107	9.6
	Female	30	12.1	33	12.2	31	11.3	56	20.9	150	14.1
	Total	56	10.5	57	10.4	57	10.3	87	16.2	257	11.8
50/ $\mu$ l	Male	1	0.3	4	1.4	4	1.4	3	1.1	12	1.1
	Female	1	0.4	5	1.9	13	4.7	5	1.9	24	2.3
	Total	2	0.4	9	1.6	17	3.1	8	1.5	36	1.7
250/ $\mu$ l	Male	2	0.7	1	0.4	3	1.1	0	0	6	0.5
	Female	3	1.2	1	0.4	0	0	2	0.7	6	0.6
	Total	5	0.9	2	0.4	3	0.5	2	0.4	12	0.6



## Ketone body

		40 - 49yr		50 - 59yr		60 - 69yr		70 - 80yr		Total	
		N	%	N	%	N	%	N	%	N	%
negative	Male	286	100.0	274	98.9	279	100.0	267	98.9	1106	99.5
	Female	242	98.0	269	99.3	274	99.6	265	98.9	1050	99.0
	Total	528	99.1	543	99.1	553	99.8	532	98.9	2156	99.2
10mg/dl	Male	0	0	1	0.4	0	0	3	1.1	4	0.4
	Female	4	1.6	2	0.7	1	0.4	3	1.1	10	0.9
	Total	4	0.8	3	0.5	1	0.2	6	1.1	14	0.6
50mg/dl	Male	0	0	2	0.7	0	0	0	0	2	0.2
	Female	1	0.4	0	0	0	0	0	0	1	0.1
	Total	1	0.2	2	0.4	0	0	0	0	3	0.1

## Bilirubin

		40 - 49yr		50 - 59yr		60 - 69yr		70 - 80yr		Total	
		N	%	N	%	N	%	N	%	N	%
negative	Male	286	100.0	277	100.0	279	100.0	270	100.0	1112	100.0
	Female	248	100.0	271	100.0	275	100.0	268	100.0	1062	100.0
	Total	534	100.0	548	100.0	554	100.0	538	100.0	2174	100.0

## Urobilinogen

		40 - 49yr		50 - 59yr		60 - 69yr		70 - 80yr		Total	
		N	%	N	%	N	%	N	%	N	%
0.5mg/dl	Male	265	92.7	260	93.9	269	96.4	252	93.3	1046	94.1
	Female	243	98.0	268	98.9	267	97.1	257	95.9	1035	97.5
	Total	508	95.1	528	96.4	536	96.8	509	94.6	2081	95.7
2mg/dl	Male	19	6.6	16	5.8	8	2.9	17	6.3	60	5.4
	Female	5	2.0	3	1.1	8	2.9	9	3.4	25	2.4
	Total	24	4.5	19	3.5	16	2.9	26	4.8	85	3.9
4mg/dl	Male	2	0.7	1	0.4	2	0.7	1	0.4	6	0.5
	Female	0	0	0	0	0	0	2	0.7	2	0.2
	Total	2	0.4	1	0.2	2	0.4	3	0.6	8	0.4

Protein

		40 - 49yr		50 - 59yr		60 - 69yr		70 - 80yr		Total	
		N	%	N	%	N	%	N	%	N	%
negative	Male	250	87.4	244	88.1	247	88.5	217	80.4	958	86.2
	Female	212	85.5	247	91.1	238	86.5	217	81.0	914	86.1
	Total	462	86.5	491	89.6	485	87.5	434	80.7	1872	86.1
±	Male	32	11.2	24	8.7	21	7.5	41	15.2	118	10.6
	Female	31	12.5	21	7.7	27	9.8	41	15.3	120	11.3
	Total	63	11.8	45	8.2	48	8.7	82	15.2	238	10.9
30mg/dl	Male	4	1.4	8	2.9	9	3.2	7	2.6	28	2.5
	Female	5	2.0	3	1.1	7	2.5	8	3.0	23	2.2
	Total	9	1.7	11	2.0	16	2.9	15	2.8	51	2.3
100mg/dl	Male	0	0	1	0.4	2	0.7	5	1.9	8	0.7
	Female	0	0	0	0	2	0.7	2	0.7	4	0.4
	Total	0	0	1	0.2	4	0.7	7	1.3	12	0.6
250mg/dl	Male	0	0	0	0	0	0	0	0	0	0
	Female	0	0	0	0	1	0.4	0	0	1	0.1
	Total	0	0	0	0	1	0.2	0	0	1	0.0

Glucose

		40 - 49yr		50 - 59yr		60 - 69yr		70 - 80yr		Total	
		N	%	N	%	N	%	N	%	N	%
negative	Male	282	98.6	270	97.5	262	93.9	260	96.7	1074	96.7
	Female	248	100.0	267	98.5	270	98.2	262	97.8	1047	98.6
	Total	530	99.3	537	98.0	532	96.0	522	97.2	2121	97.6
±	Male	2	0.7	2	0.7	2	0.7	1	0.4	7	0.6
	Female	0	0	2	0.7	3	1.1	1	0.4	6	0.6
	Total	2	0.4	4	0.7	5	0.9	2	0.4	13	0.6
150mg/dl	Male	1	0.3	2	0.7	12	4.3	5	1.9	20	1.8
	Female	0	0	1	0.4	0	0	3	1.1	4	0.4
	Total	1	0.2	3	0.5	12	2.2	8	1.5	24	1.1
500mg/dl	Male	1	0.3	2	0.7	2	0.7	2	0.7	7	0.6
	Female	0	0	1	0.4	1	0.4	2	0.7	4	0.4
	Total	1	0.2	3	0.5	3	0.5	4	0.7	11	0.5
2000mg/dl	Male	0	0	1	0.4	1	0.4	1	0.4	3	0.3
	Female	0	0	0	0	1	0.4	0	0	1	0.1
	Total	0	0	1	0.2	2	0.4	1	0.2	4	0.2

## pH

		40 - 49yr		50 - 59yr		60 - 69yr		70 - 80yr		Total	
		N	%	N	%	N	%	N	%	N	%
pH5	Male	131	45.8	133	48.0	146	52.3	129	47.8	539	48.5
	Female	128	51.6	141	52.0	125	45.5	123	45.9	517	48.7
	Total	259	48.5	274	50.0	271	48.9	252	46.8	1056	48.6
pH6	Male	84	29.4	82	29.6	74	26.5	68	25.2	308	27.7
	Female	62	25.0	78	28.8	73	26.5	80	29.9	293	27.6
	Total	146	27.3	160	29.2	147	26.5	148	27.5	601	27.6
pH7	Male	64	22.4	53	19.1	49	17.6	64	23.7	230	20.7
	Female	50	20.2	44	16.2	68	24.7	51	19.0	213	20.1
	Total	114	21.3	97	17.7	117	21.1	115	21.4	443	20.4
pH8	Male	7	2.4	8	2.9	9	3.2	9	3.3	33	3.0
	Female	7	2.8	8	3.0	9	3.3	14	5.2	38	3.6
	Total	14	2.6	16	2.9	18	3.2	23	4.3	71	3.3
pH9	Male	0	0	1	0.4	1	0.4	0	0	2	0.2
	Female	1	0.4	0	0	0	0	0	0	1	0.1
	Total	1	0.2	1	0.2	1	0.2	0	0	3	0.1

## Nitrite

		40 - 49yr		50 - 59yr		60 - 69yr		70 - 80yr		Total	
		N	%	N	%	N	%	N	%	N	%
negative	Male	286	100.0	275	99.3	278	99.6	269	99.6	1108	99.6
	Female	247	99.6	271	100.0	273	99.6	261	97.4	1052	99.2
	Total	533	99.8	546	99.6	551	99.6	530	98.5	2160	99.4
positive	Male	0	0	2	0.7	1	0.4	1	0.4	4	0.4
	Female	1	0.4	0	0	1	0.4	7	2.6	9	0.8
	Total	1	0.2	2	0.4	2	0.4	8	1.5	13	0.6

## VII. Psychological Examinations

## **VII. Psychological Examinations**

### **1) Depression Scales**

- 1. The Center for Epidemiological Studies Depression Scale (CES-D)**
- 2. The Geriatric Depression Scale (GDS)**

### **2) Personality Scales**

- 1. The Rosenberg Self-Esteem Scale**
- 2. The Erickson Psychosocial Stage Inventory (EPSI)**
- 3. The Locus of Control Scale**
- 4. The Scale of Attitude toward Death (ATD)**

### **3) Social Relations**

- 1. Social Support from Friends and Acquaintances**
- 2. Social Exchange with Family Members**

### **4) Subjective Well-being**

- 1. The Life Satisfaction Index-K (LSI-K)**
- 2. The Satisfaction with Life Scale (SWLS)**

### **5) Stress-Related Factors**

- 1. The Stress Coping Scale**
- 2. Life Events Checklist**

### **6) ADL**

- 1. The Tokyo Metropolitan Institute of Gerontology (TMIG) Index of Competence**
- 2. The Katz Index**

### **7) Intelligence and Cognitive Function Scales**

- 1. Wechsler Adult Intelligence Scale-Revised Short Forms (WAIS-R-SF)**
- 2. Mini Mental State Examination (MMSE)**

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 also consists of 4 subscales as follows: somatic and retarded activity, depressed affect, positive affect, and interpersonal relations. Higher scores indicate higher depressive symptomatology. 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			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	7.4	6.7	290	6.4	6.2	279	6.7	6.7	282	8.1	7.2	279	7.1	6.7	1130
Female	7.0	5.6	281	7.4	6.4	275	7.9	7.2	281	8.9	7.3	275	7.8	6.7	1112
Total	7.2	6.2	571	6.9	6.3	554	7.3	7.0	563	8.5	7.2	554	7.5	6.7	2242

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

	40~49yr			50~59yr			60~69yr			70~79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.1	2.5	290	1.8	2.1	281	2.2	2.5	283	2.8	2.9	281	2.2	2.5	1135
Female	2.3	2.2	282	2.4	2.5	276	2.6	2.7	282	3.2	3.0	281	2.6	2.6	1121
Total	2.2	2.3	572	2.1	2.3	557	2.4	2.6	565	3.0	2.9	562	2.4	2.6	2256

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

	40~49yr			50~59yr			60~69yr			70~79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	1.8	2.4	291	1.5	2.2	281	1.4	2.1	283	1.9	2.6	281	1.7	2.3	1136
Female	1.6	2.1	281	1.8	2.5	277	1.9	2.7	284	2.1	2.8	278	1.9	2.5	1120
Total	1.7	2.2	572	1.7	2.4	558	1.7	2.4	567	2.0	2.7	559	1.8	2.4	2256

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

	40~49yr			50~59yr			60~69yr			70~79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	2.9	2.5	291	2.6	2.5	282	2.6	2.6	282	2.8	2.8	283	2.7	2.6	1138
Female	2.8	2.5	282	2.7	2.5	279	2.8	2.7	285	3.1	2.7	280	2.9	2.6	1126
Total	2.9	2.5	573	2.7	2.5	561	2.7	2.6	567	3.0	2.7	563	2.8	2.6	2264

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

	40~49yr			50~59yr			60~69yr			70~79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.3	0.8	291	0.4	0.8	282	0.3	0.7	283	0.4	0.8	281	0.3	0.8	1137
Female	0.2	0.5	282	0.2	0.6	279	0.3	0.7	285	0.4	0.8	280	0.3	0.7	1126
Total	0.2	0.7	573	0.3	0.7	561	0.3	0.7	568	0.4	0.8	561	0.3	0.7	2263

CES-D: parameter of distribution using cutoff score

		40~49yr		50~59yr		60~69yr		70~79yr		Total	
		N	%	N	%	N	%	N	%	N	%
under score of 16	Male	256	88.3	251	90.0	248	87.9	234	83.9	989	87.5
	Female	256	91.1	245	89.1	246	87.5	219	79.6	966	86.9
	Total	512	89.7	496	89.5	494	87.7	453	81.8	1955	87.2
at and above score of 16	Male	34	11.7	28	10.0	34	12.1	45	16.1	141	12.5
	Female	25	8.9	30	10.9	35	12.5	56	20.4	146	13.1
	Total	59	10.3	58	10.5	69	12.3	101	18.2	287	12.8

## 2. Geriatric Depression Scale (GDS)

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

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

	40~49yr			50~59yr			60~69yr			70~79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	-	-	0	-	-	0	3.2	3.0	254	3.6	3.1	260	3.4	3.0	514
Female	-	-	0	-	-	0	3.4	2.9	254	3.8	2.9	252	3.6	2.9	506
Total	-	-	0	-	-	0	3.3	3.0	508	3.7	3.0	512	3.5	3.0	1020

GDS parameter of distribution using cutoff score

		60~69yr		70~79yr		Total	
		N	%	N	%	N	%
under score of 6	Male	214	84.3	202	77.7	416	80.9
	Female	205	80.7	196	77.8	401	79.2
	Total	419	82.5	398	77.7	817	80.1
at and above score of 6	Male	40	15.7	58	22.3	98	19.1
	Female	49	19.3	56	22.2	105	20.8
	Total	89	17.5	114	22.3	203	19.9



2) 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			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	28.8	4.6	291	29.2	4.2	282	28.9	4.8	283	28.5	4.6	281	28.9	4.5	1137
Female	27.6	4.2	281	27.3	4.0	278	27.3	4.7	285	27.1	4.2	277	27.3	4.3	1121
Total	28.2	4.4	572	28.3	4.2	560	28.1	4.8	568	27.8	4.5	558	28.1	4.5	2258

2. Erickson Psychosocial Stage Inventory (EPSI)

The EPSI is a scale to measure psychosocial development.

The Japanese version of the scale comprises eight subscales (trust, autonomy, initiative, industry, identity, intimacy, generativity, and ego integrity) each of which has 7 items with 5 options.

Higher scores indicate higher levels of development.

EPSI: total score of 8 subscales (56 items. possible range 56-280)

	40~49yr			50~59yr			60~69yr			70~79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	188.3	23.9	290	194.5	24.0	282	195.3	27.8	282	192.4	25.7	273	192.6	25.5	1127
Female	185.7	24.1	279	187.5	24.2	270	190.5	26.0	281	188.0	26.0	275	187.9	25.1	1105
Total	187.0	24.0	569	191.1	24.3	552	192.9	27.0	563	190.2	25.9	548	190.3	25.4	2232

EPSI subscale 1: trust (7 items. possible range 7-35)

	40~49yr			50~59yr			60~69yr			70~79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	22.3	3.2	291	23.2	3.5	282	23.2	3.6	283	23.2	3.4	279	23.0	3.4	1135
Female	23.1	3.5	282	23.1	3.7	276	23.4	3.3	283	23.2	3.8	281	23.2	3.6	1122
Total	22.7	3.4	573	23.1	3.6	558	23.3	3.5	566	23.2	3.6	560	23.1	3.5	2257

EPSI subscale2: autonomy (7 items. possible range 7-35)

	40~49yr			50~59yr			60~69yr			70~79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	24.0	3.7	290	24.6	4.0	282	24.5	4.0	282	24.0	4.2	281	24.3	4.0	1135
Female	24.1	4.0	281	24.3	3.9	279	24.2	4.5	284	24.0	4.3	280	24.1	4.2	1124
Total	24.1	3.8	571	24.5	3.9	561	24.3	4.3	566	24.0	4.2	561	24.2	4.1	2259

EPSI subscale 3: initiative (7 items. possible range 7-35)

	40~49yr			50~59yr			60~69yr			70~79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	23.5	3.9	291	24.4	3.7	282	24.2	4.3	282	24.0	3.7	281	24.0	3.9	1136
Female	22.6	3.5	282	22.8	3.4	278	23.0	4.0	283	22.5	4.2	279	22.7	3.8	1122
Total	23.1	3.7	573	23.6	3.6	560	23.6	4.2	565	23.2	4.1	560	23.4	3.9	2258

EPSI subscale 4: industry (7 items. possible range 7-35)

	40~49yr			50~59yr			60~69yr			70~79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	24.6	4.0	291	25.6	3.7	282	24.9	4.6	282	24.0	4.3	281	24.8	4.2	1136
Female	23.3	3.9	282	23.6	4.1	279	23.7	4.7	284	23.2	4.7	281	23.4	4.3	1126
Total	24.0	4.0	573	24.6	4.0	561	24.3	4.7	566	23.6	4.5	562	24.1	4.3	2262

EPSI subscale 5: identity (7 items. possible range 7-35)

	40~49yr			50~59yr			60~69yr			70~79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	24.7	4.0	291	25.3	3.8	282	25.4	4.2	282	24.8	4.3	279	25.1	4.1	1134
Female	24.3	4.0	281	24.3	4.1	278	24.3	4.2	284	24.2	4.4	279	24.3	4.2	1122
Total	24.5	4.0	572	24.8	4.0	560	24.9	4.2	566	24.5	4.3	558	24.7	4.1	2256

EPSI subscale 6: intimacy (7 items. possible range 7-35)

	40~49yr			50~59yr			60~69yr			70~79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	23.1	3.6	291	23.5	3.8	282	23.9	3.9	283	23.3	3.7	282	23.4	3.8	1138
Female	23.5	4.1	282	23.5	4.0	279	23.9	3.8	283	23.2	4.1	280	23.5	4.0	1124
Total	23.3	3.9	573	23.5	3.9	561	23.9	3.9	566	23.2	3.9	562	23.5	3.9	2262

EPSI subscale 7: generativity (7 items. possible range 7-35)

	40~49yr			50~59yr			60~69yr			70~79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	22.3	3.6	291	23.2	3.8	282	23.5	4.3	283	23.5	3.9	278	23.1	3.9	1134
Female	20.9	3.9	282	21.5	3.8	275	22.3	4.0	284	21.9	4.2	279	21.6	4.0	1120
Total	21.6	3.8	573	22.4	3.9	557	22.9	4.2	567	22.7	4.1	557	22.4	4.0	2254

EPSI subscale 8: ego integrity (7 items. possible range 7-35)

	40~49yr			50~59yr			60~69yr			70~79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	23.8	3.8	291	24.7	3.8	282	25.7	4.1	282	25.8	4.1	281	25.0	4.0	1136
Female	24.0	3.9	281	24.5	4.0	278	25.6	4.2	284	25.9	4.5	280	25.0	4.2	1123
Total	23.9	3.9	572	24.6	3.9	560	25.7	4.2	566	25.8	4.3	561	25.0	4.1	2259

### 3. The Locus of Control Scale

This is the eight-item scale (5 options) to measure the cognitive aspects about the self and the environment. Persons with higher score of the scale are supposed to believe that the events in their lives are under their own control.

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

	40~49yr			50~59yr			60~69yr			70~79yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	27.4	4.5	291	28.1	4.8	282	27.8	4.9	283	26.9	4.4	280	27.5	4.7	1136
Female	25.8	4.8	282	26.2	4.7	279	25.6	4.9	284	24.9	4.9	281	25.6	4.8	1126
Total	26.6	4.7	573	27.1	4.9	561	26.7	5.0	567	25.9	4.8	561	26.6	4.9	2262