

VI. Blood Analysis

Venous blood sample and urine were obtained after an overnight fast.

1) Blood chemistry

- Total protein (g/dL)
- Triglyceride (mg/dL)
- Total cholesterol (mg/dL)
- HDL-cholesterol (mg/dL)
- Uric acid (mg/dL)
- Creatinine (mg/dL)
- Calcium (mg/dL)
- Phosphorus (mg/dL)
- Glutamate oxaloacetate transaminase, GOT (U/L)
- Glutamate pyruvate transaminase, GPT (U/L)
- Gamma-glutamyltransferase (U/L)
- Cholinesterase (U/L)
- Iron (micro g/dL)
- Fasting glucose (mg/dL)
- Hemoglobin A1c (%)
- Albumin (g/dL) direct method

2) Complete blood cell count

- White blood cell count (/micro L)
- Red blood cell count (x10000/micro L)
- Hemoglobin (g/dL)
- Hematocrit (%)
- MCV (fL)
- MCH (pg)
- MCHC (%)
- Platelet count (x10000/micro L)

1) Blood chemistry

Total protein(g/dL)

	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	7.4	0.4	257	7.4	0.4	274	7.4	0.4	276	7.5	0.4	270	7.5	0.5	96	7.4	0.4	1173
Female	7.4	0.4	262	7.5	0.4	249	7.4	0.4	271	7.5	0.4	249	7.5	0.4	98	7.4	0.4	1129
Total	7.4	0.4	519	7.4	0.4	523	7.4	0.4	547	7.5	0.4	519	7.5	0.4	194	7.4	0.4	2302

Triglyceride(mg/dL)

	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	131.2	109.8	253	133.6	99.0	271	125.5	80.6	268	117.5	62.5	257	116.1	73.8	93	126.1	88.7	1142
Female	74.6	45.3	259	89.4	41.6	242	105.2	57.1	268	119.8	93.9	240	96.9	35.4	88	97.0	62.8	1097
Total	102.6	88.3	512	112.8	80.5	513	115.3	70.5	536	118.6	79.2	497	106.7	59.0	181	111.9	78.4	2239

Total cholesterol (mg/dL)

	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	207.4	33.0	257	213.6	32.9	274	211.6	32.9	276	201.8	34.4	270	197.9	33.1	96	207.8	33.6	1173
Female	205.2	28.5	262	225.6	34.9	249	227.4	30.1	271	220.3	32.4	249	213.8	29.8	98	219.1	32.5	1129

Total 206.3 30.8 519 219.3 34.4 523 219.4 32.5 547 210.7 34.7 519 205.9 32.4 194 213.3 33.5 2302

HDL-cholesterol (mg/dL)

	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	58.6	13.7	257	58.3	14.4	274	57.8	14.6	276	55.1	14.4	270	54.2	14.6	96	57.2	14.4	1173
Female	71.9	15.3	262	70.9	16.1	249	66.2	14.0	271	62.1	14.2	249	63.6	14.5	98	67.4	15.4	1129
Total	65.3	15.9	519	64.3	16.5	523	62.0	14.9	547	58.5	14.7	519	58.9	15.3	194	62.2	15.7	2302

Uric acid (mg/dL)

	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	6.0	1.2	257	5.9	1.2	274	5.9	1.2	276	5.7	1.2	270	5.7	1.3	96	5.9	1.2	1173
Female	4.1	0.8	262	4.4	1.0	249	4.6	1.0	271	4.9	1.1	249	4.9	1.3	98	4.5	1.1	1129
Total	5.1	1.4	519	5.2	1.3	523	5.2	1.3	547	5.3	1.2	519	5.3	1.3	194	5.2	1.3	2302

Creatinine (mg/dL)

	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	0.8	0.1	257	0.8	0.1	274	0.8	0.1	276	0.8	0.3	270	0.9	0.3	96	0.8	0.2	1173
Female	0.6	0.3	262	0.6	0.1	249	0.6	0.1	271	0.6	0.1	249	0.7	0.2	98	0.6	0.2	1129
Total	0.7	0.3	519	0.7	0.2	523	0.7	0.2	547	0.7	0.3	519	0.8	0.2	194	0.7	0.2	2302

Calcium (mg/dL)

	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	9.3	0.3	257	9.3	0.3	274	9.3	0.3	276	9.2	0.4	270	9.1	0.3	96	9.3	0.3	1173
Female	9.1	0.3	262	9.3	0.3	249	9.3	0.3	271	9.3	0.3	249	9.2	0.3	98	9.3	0.3	1129
Total	9.2	0.3	519	9.3	0.3	523	9.3	0.3	547	9.2	0.3	519	9.2	0.3	194	9.3	0.3	2302

Phosphorus (mg/dL)

	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	3.3	0.4	257	3.2	0.4	274	3.2	0.4	276	3.2	0.4	270	3.2	0.4	96	3.2	0.4	1173
Female	3.5	0.4	262	3.8	0.4	249	3.7	0.4	271	3.7	0.4	249	3.7	0.4	98	3.6	0.4	1129
Total	3.4	0.4	519	3.5	0.5	523	3.4	0.5	547	3.4	0.5	519	3.4	0.5	194	3.4	0.5	2302

Glutamate oxaloacetate transaminase, GOT (U/L)

	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	23.4	8.2	257	23.6	8.1	274	24.3	8.0	276	25.2	11.5	270	25.1	9.4	96	24.2	9.1	1173

Female	19.2	7.4	262	21.6	6.0	249	23.6	6.7	271	24.3	11.8	249	25.1	8.8	98	22.4	8.5	1129
Total	21.3	8.1	519	22.7	7.2	523	23.9	7.4	547	24.7	11.7	519	25.1	9.0	194	23.3	8.9	2302

Glutamate pyruvate transaminase, GPT (U/L)

	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	17.8	257	25.3	13.4	274	23.6	12.3	276	21.2	13.0	270	18.4	8.6	96	23.9	14.1	1173
Female	16.4	12.0	262	18.7	8.6	249	20.5	10.7	271	19.3	19.0	249	16.9	9.1	98	18.6	12.9	1129
Total	21.8	16.1	519	22.2	11.8	523	22.1	11.6	547	20.3	16.1	519	17.7	8.9	194	21.3	13.8	2302

Gamma-glutamyltransferase (U/L)

	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	46.1	45.8	257	50.2	47.7	274	50.1	56.8	276	42.0	40.5	270	42.6	88.6	96	46.8	52.6	1173
Female	20.1	16.4	262	24.1	17.5	249	27.7	23.2	271	26.8	53.0	249	22.7	17.5	98	24.5	30.2	1129
Total	33.0	36.6	519	37.8	38.8	523	39.0	44.9	547	34.7	47.5	519	32.6	64.2	194	35.9	44.5	2302

Cholinesterase (U/L)

	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	362.7	77.9	257	360.0	67.9	274	351.1	92.6	276	326.7	84.3	270	292.3	62.1	96	345.3	82.4	1173
Female	310.8	66.1	262	356.7	105.8	249	364.7	96.4	271	347.3	100.9	249	311.5	61.1	98	342.0	93.5	1129
Total	336.5	76.7	519	358.4	87.9	523	357.8	94.7	547	336.6	93.1	519	302.0	62.2	194	343.7	88.0	2302

Iron(micro g/dL)

	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	126.1	45.4	257	119.1	41.3	274	117.6	38.2	276	112.6	36.3	270	113.9	34.5	96	118.4	40.1	1173
Female	104.6	52.5	262	104.6	37.0	249	109.4	31.7	271	104.5	32.0	249	91.9	34.5	98	104.6	39.1	1129
Total	115.2	50.3	519	112.2	39.9	523	113.5	35.3	547	108.7	34.5	519	102.8	36.1	194	111.6	40.2	2302

Fasting glucose(mg/dL)

	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	96.1	14.4	253	102.1	17.4	271	104.7	19.8	268	105.3	21.1	257	104.8	19.8	93	102.3	18.8	1142
Female	92.5	20.3	259	95.3	17.0	242	98.3	20.3	268	101.9	23.0	240	100.6	18.0	88	97.3	20.4	1097
Total	94.3	17.7	512	98.9	17.5	513	101.5	20.3	536	103.7	22.1	497	102.7	19.0	181	99.8	19.7	2239

Hemoglobin A1c(%)

Male	47.4	2.8	257	47.0	2.8	274	46.4	3.2	276	45.3	3.5	270	43.2	4.1	96	46.3	3.4	1173
Female	40.8	3.5	262	41.7	3.2	249	42.0	2.8	271	41.6	3.2	249	40.1	3.4	98	41.4	3.2	1129
Total	44.0	4.6	519	44.5	4.0	523	44.2	3.7	547	43.5	3.8	519	41.7	4.1	194	43.9	4.1	2302

MCV (fL)

	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	96.3	4.2	257	97.1	4.6	274	97.8	4.5	276	98.1	5.3	270	98.1	4.8	96	97.4	4.7	1173
Female	93.0	6.5	262	94.7	5.8	249	96.2	3.9	271	96.4	4.1	249	97.2	4.0	98	95.3	5.3	1129
Total	94.6	5.7	519	96.0	5.3	523	97.0	4.3	547	97.3	4.8	519	97.6	4.4	194	96.3	5.1	2302

MCH (pg)

	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	31.8	1.4	257	32.1	1.6	274	32.2	1.6	276	32.2	1.9	270	32.1	1.7	96	32.1	1.7	1173
Female	29.9	2.9	262	30.6	2.3	249	31.2	1.4	271	31.2	1.5	249	31.2	1.4	98	30.8	2.1	1129
Total	30.9	2.5	519	31.4	2.1	523	31.7	1.6	547	31.7	1.8	519	31.6	1.6	194	31.4	2.0	2302

MCHC (%)

	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	33.1	0.7	257	33.0	0.9	274	33.0	0.9	276	32.9	0.8	270	32.8	1.1	96	33.0	0.9	1173
Female	32.1	1.3	262	32.3	1.1	249	32.4	0.9	271	32.3	0.9	249	32.1	0.8	98	32.3	1.0	1129
Total	32.6	1.2	519	32.7	1.0	523	32.7	0.9	547	32.6	0.9	519	32.4	1.0	194	32.6	1.0	2302

Platelet count (x10000/micro L)

	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	4.4	257	23.6	5.6	274	22.2	5.5	276	21.8	8.5	269	20.4	4.6	94	22.6	6.2	1170
Female	26.2	6.4	259	24.1	6.0	249	23.5	5.3	269	23.6	5.6	246	22.4	5.6	98	24.2	5.9	1121
Total	25.0	5.6	516	23.8	5.8	523	22.8	5.5	545	22.7	7.3	515	21.4	5.2	192	23.4	6.1	2291