

Life style on holidays (3rd rank in frequency)

		40-49yr		50-59yr		60-69yr		70-79yr		80yr-		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
Hobby	Total	49	8.4	45	7.8	54	9.4	33	6.1	11	9.8	192	8.1
Religion	Male	1	0.3	1	0.3	2	0.7	2	0.8	1	1.9	7	0.6
	Female	3	1.0	2	0.7	3	1.1	2	0.7	0	0.0	10	0.8
	Total	4	0.7	3	0.5	5	0.9	4	0.7	1	0.9	17	0.7
Work	Male	8	2.8	16	5.4	7	2.3	12	4.7	2	3.8	45	3.8
	Female	6	2.0	4	1.4	5	1.8	5	1.8	0	0.0	20	1.7
	Total	14	2.4	20	3.5	12	2.1	17	3.1	2	1.8	65	2.7
Others	Male	6	2.1	3	1.0	6	2.0	4	1.6	1	1.9	20	1.7
	Female	9	3.1	4	1.4	1	0.4	3	1.1	2	3.4	19	1.6
	Total	15	2.6	7	1.2	7	1.2	7	1.3	3	2.7	39	1.6

Present life worth living

		40-49yr		50-59yr		60-69yr		70-79yr		80yr-		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
Work	Male	125	43.7	145	49.2	108	36.0	66	25.9	11	20.8	455	38.3
	Female	85	28.9	98	34.6	65	23.8	46	16.1	10	16.9	304	25.5
	Total	210	36.2	243	42.0	173	30.2	112	20.7	21	18.8	759	31.9
Connection with colleagues in work place	Male	52	18.2	62	21.0	46	15.3	28	11.0	5	9.4	193	16.2
	Female	31	10.5	42	14.8	37	13.6	21	7.4	2	3.4	133	11.1
	Total	83	14.3	104	18.0	83	14.5	49	9.1	7	6.3	326	13.7
Connection with family member	Male	200	69.9	201	68.1	214	71.3	178	69.8	32	60.4	825	69.4
	Female	199	67.7	194	68.6	186	68.1	139	48.8	20	33.9	738	61.8
	Total	399	68.8	395	68.3	400	69.8	317	58.7	52	46.4	1563	65.6
Growth of children or grandchildren	Male	138	48.3	129	43.7	158	52.7	134	52.5	23	43.4	582	48.9
	Female	186	63.3	148	52.3	184	67.4	152	53.3	27	45.8	697	58.4
	Total	324	55.9	277	47.9	342	59.7	286	53.0	50	44.6	1279	53.7
Hobbies or sports	Male	119	41.6	117	39.7	130	43.3	89	34.9	18	34.0	473	39.8
	Female	98	33.3	107	37.8	111	40.7	86	30.2	24	40.7	426	35.7
	Total	217	37.4	224	38.8	241	42.1	175	32.4	42	37.5	899	37.7
Keeping company with friends in hobbies	Male	50	17.5	75	25.4	93	31.0	75	29.4	15	28.3	308	25.9
	Female	47	16.0	72	25.4	105	38.5	87	30.5	19	32.2	330	27.6
	Total	97	16.7	147	25.4	198	34.6	162	30.0	34	30.4	638	26.8
Activity in local area or a party	Male	14	4.9	21	7.1	44	14.7	58	22.7	4	7.5	141	11.9
	Female	8	2.7	23	8.1	29	10.6	41	14.4	9	15.3	110	9.2
	Total	22	3.8	44	7.6	73	12.7	99	18.3	13	11.6	251	10.5
Care for other person	Male	1	0.3	10	3.4	19	6.3	25	9.8	2	3.8	57	4.8
	Female	7	2.4	11	3.9	19	7.0	22	7.7	3	5.1	62	5.2
	Total	8	1.4	21	3.6	38	6.6	47	8.7	5	4.5	119	5.0
Religion	Male	5	1.7	4	1.4	8	2.7	17	6.7	3	5.7	37	3.1

(Continued)

Present life worth living

		40-49yr		50-59yr		60-69yr		70-79yr		80yr-		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
Religion	Female	10	3.4	9	3.2	12	4.4	24	8.4	3	5.1	58	4.9
	Total	15	2.6	13	2.2	20	3.5	41	7.6	6	5.4	95	4.0
Others	Male	3	1.0	12	4.1	10	3.3	10	3.9	4	7.5	39	3.3
	Female	8	2.7	15	5.3	10	3.7	18	6.3	5	8.5	56	4.7
	Total	11	1.9	27	4.7	20	3.5	28	5.2	9	8.0	95	4.0
None	Male	15	5.2	14	4.7	11	3.7	15	5.9	2	3.8	57	4.8
	Female	17	5.8	18	6.4	16	5.9	22	7.7	5	8.5	78	6.5
	Total	32	5.5	32	5.5	27	4.7	37	6.9	7	6.3	135	5.7
Total	Male	286	100.0	295	100.0	300	100.0	255	100.0	53	100.0	1189	100.0
	Female	294	100.0	283	100.0	273	100.0	285	100.0	59	100.0	1194	100.0
	Total	580	100.0	578	100.0	573	100.0	540	100.0	112	100.0	2383	100.0

State of employment

		40-49yr		50-59yr		60-69yr		70-79yr		80yr-		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
Not recorded	Male	3	1.0	0	0.0	3	1.0	0	0.0	1	1.9	7	0.6
	Female	1	0.3	0	0.0	0	0.0	2	0.7	2	3.4	5	0.4
	Total	4	0.7	0	0.0	3	0.5	2	0.4	3	2.7	12	0.5
Inoccupation	Male	1	0.3	7	2.4	115	38.3	187	73.3	41	77.4	351	29.5
	Female	3	1.0	7	2.5	44	16.1	135	47.4	37	62.7	226	18.9
	Total	4	0.7	14	2.4	159	27.7	322	59.6	78	69.6	577	24.2
Housewife	Male	2	0.7	1	0.3	6	2.0	5	2.0	0	0.0	14	1.2
	Female	72	24.5	89	31.4	141	51.6	113	39.6	15	25.4	430	36.0
	Total	74	12.8	90	15.6	147	25.7	118	21.9	15	13.4	444	18.6
Full employment	Male	276	96.5	279	94.6	93	31.0	38	14.9	3	5.7	689	57.9
	Female	64	21.8	69	24.4	30	11.0	16	5.6	3	5.1	182	15.2
	Total	340	58.6	348	60.2	123	21.5	54	10.0	6	5.4	871	36.6
Part time employment	Male	4	1.4	8	2.7	83	27.7	25	9.8	8	15.1	128	10.8
	Female	154	52.4	118	41.7	58	21.2	19	6.7	2	3.4	351	29.4
	Total	158	27.2	126	21.8	141	24.6	44	8.1	10	8.9	479	20.1

Present job

		40-49yr		50-59yr		60-69yr		70-79yr		80yr-		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
Not recorded	Male	6	2.1	9	3.1	123	41.0	192	75.3	42	79.2	372	31.3
	Female	77	26.2	96	33.9	185	67.8	251	88.1	54	91.5	663	55.5
	Total	83	14.3	105	18.2	308	53.8	443	82.0	96	85.7	1035	43.4
Specialist (doctor, lawyer, researcher, engineer, teacher, artist, journalist, etc)	Male	71	24.8	34	11.5	16	5.3	5	2.0	2	3.8	128	10.8
	Female	38	12.9	30	10.6	5	1.8	2	0.7	0	0.0	75	6.3
	Total	109	18.8	64	11.1	21	3.7	7	1.3	2	1.8	203	8.5
Administrative position (higher grade than chief in office, stationmaster, head in school, etc)	Male	47	16.4	82	27.8	28	9.3	5	2.0	0	0.0	162	13.6
	Female	1	0.3	2	0.7	1	0.4	2	0.7	0	0.0	6	0.5
	Total	48	8.3	84	14.5	29	5.1	7	1.3	0	0.0	168	7.0
Office work (company, bank, government office, etc)	Male	37	12.9	23	7.8	22	7.3	2	0.8	0	0.0	84	7.1
	Female	58	19.7	44	15.5	11	4.0	1	0.4	0	0.0	114	9.5
	Total	95	16.4	67	11.6	33	5.8	3	0.6	0	0.0	198	8.3
Engagement in service or selling (clerk, salesman, beauty artist, caterer, etc)	Male	26	9.1	17	5.8	17	5.7	5	2.0	1	1.9	66	5.6
	Female	70	23.8	46	16.3	33	12.1	10	3.5	1	1.7	160	13.4
	Total	96	16.6	63	10.9	50	8.7	15	2.8	2	1.8	226	9.5
Engagement in skilled or labor work (driver, engineering, construction, manufacture, processing, repairment, printing, etc)	Male	80	28.0	103	34.9	62	20.7	17	6.7	2	3.8	264	22.2
	Female	28	9.5	47	16.6	19	7.0	10	3.5	0	0.0	104	8.7
	Total	108	18.6	150	26.0	81	14.1	27	5.0	2	1.8	368	15.4
Engagement in security (policeman, fire officer, self-defence official)	Male	6	2.1	5	1.7	3	1.0	0	0.0	0	0.0	14	1.2
	Female	2	0.7	0	0.0	0	0.0	0	0.0	0	0.0	2	0.2
	Total	8	1.4	5	0.9	3	0.5	0	0.0	0	0.0	16	0.7

(Continued)

Present job

		40-49yr		50-59yr		60-69yr		70-79yr		80yr-		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
Worker in agriculture, forestry and fishery	Male	3	1.0	8	2.7	4	1.3	19	7.5	3	5.7	37	3.1
	Female	3	1.0	3	1.1	8	2.9	3	1.1	2	3.4	19	1.6
	Total	6	1.0	11	1.9	12	2.1	22	4.1	5	4.5	56	2.3
Self-management other than agriculture, forestry and fishery	Male	10	3.5	13	4.4	15	5.0	6	2.4	2	3.8	46	3.9
	Female	7	2.4	8	2.8	6	2.2	5	1.8	1	1.7	27	2.3
	Total	17	2.9	21	3.6	21	3.7	11	2.0	3	2.7	73	3.1
Others	Male	0	0.0	1	0.3	10	3.3	4	1.6	1	1.9	16	1.3
	Female	10	3.4	7	2.5	5	1.8	1	0.4	1	1.7	24	2.0
	Total	10	1.7	8	1.4	15	2.6	5	0.9	2	1.8	40	1.7

Period of full employment (years)

	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	22.4	4.5	281	34.2	4.7	293	42.3	6.4	297	44.1	10.0	253	43.5	10.5	52	36.0	10.9	1176
Female	9.7	6.9	292	13.5	11.2	280	20.0	14.8	268	22.3	17.2	278	21.6	19.9	52	16.5	14.3	1170
Total	16.0	8.6	573	24.1	13.4	573	31.7	15.8	565	32.7	17.9	531	32.5	19.3	104	26.3	16.0	2346

Years of education

	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	14.5	2.4	283	13.4	2.6	295	12.4	2.8	298	11.1	2.8	254	10.8	3.0	52	12.8	3.0	1182
Female	13.5	1.8	293	12.5	2.2	283	11.5	2.3	272	10.2	2.3	282	9.8	2.2	56	11.8	2.5	1186
Total	14.0	2.2	576	12.9	2.5	578	12.0	2.6	570	10.6	2.6	536	10.3	2.6	108	12.3	2.8	2368

Marital status

		40-49yr		50-59yr		60-69yr		70-79yr		80yr-		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
Not recorded	Male	3	1.0	0	0.0	3	1.0	1	0.4	1	1.9	8	0.7
	Female	1	0.3	0	0.0	1	0.4	3	1.1	2	3.4	7	0.6
	Total	4	0.7	0	0.0	4	0.7	4	0.7	3	2.7	15	0.6
Unmarried	Male	27	9.4	10	3.4	3	1.0	3	1.2	0	0.0	43	3.6
	Female	14	4.8	6	2.1	5	1.8	12	4.2	2	3.4	39	3.3
	Total	41	7.1	16	2.8	8	1.4	15	2.8	2	1.8	82	3.4
Already married (co vers unregistered m arriage)	Male	251	87.8	274	92.9	282	94.0	237	92.9	44	83.0	1088	91.5
	Female	265	90.1	256	90.5	224	82.1	155	54.4	24	40.7	924	77.4
	Total	516	89.0	530	91.7	506	88.3	392	72.6	68	60.7	2012	84.4
Separation	Male	2	0.7	3	1.0	0	0.0	2	0.8	0	0.0	7	0.6
	Female	2	0.7	4	1.4	2	0.7	1	0.4	1	1.7	10	0.8
	Total	4	0.7	7	1.2	2	0.3	3	0.6	1	0.9	17	0.7
Divorced	Male	3	1.0	6	2.0	5	1.7	0	0.0	0	0.0	14	1.2
	Female	10	3.4	8	2.8	7	2.6	9	3.2	2	3.4	36	3.0
	Total	13	2.2	14	2.4	12	2.1	9	1.7	2	1.8	50	2.1
Separation by death	Male	0	0.0	2	0.7	7	2.3	12	4.7	8	15.1	29	2.4
	Female	2	0.7	9	3.2	34	12.5	105	36.8	28	47.5	178	14.9
	Total	2	0.3	11	1.9	41	7.2	117	21.7	36	32.1	207	8.7

## Resident status

		40-49yr		50-59yr		60-69yr		70-79yr		80yr-		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
Not recorded	Male	3	1.0	0	0.0	2	0.7	1	0.4	1	1.9	7	0.6
	Female	1	0.3	0	0.0	1	0.4	2	0.7	1	1.7	5	0.4
	Total	4	0.7	0	0.0	3	0.5	3	0.6	2	1.8	12	0.5
Living alone	Male	13	4.5	11	3.7	8	2.7	12	4.7	1	1.9	45	3.8
	Female	4	1.4	5	1.8	15	5.5	66	23.2	15	25.4	105	8.8
	Total	17	2.9	16	2.8	23	4.0	78	14.4	16	14.3	150	6.3
Husband and wife	Male	29	10.1	63	21.4	146	48.7	153	60.0	25	47.2	416	35.0
	Female	17	5.8	72	25.4	124	45.4	102	35.8	11	18.6	326	27.3
	Total	46	7.9	135	23.4	270	47.1	255	47.2	36	32.1	742	31.1
Others	Male	241	84.3	221	74.9	144	48.0	89	34.9	26	49.1	721	60.6
	Female	272	92.5	206	72.8	133	48.7	115	40.4	32	54.2	758	63.5
	Total	513	88.4	427	73.9	277	48.3	204	37.8	58	51.8	1479	62.1

## Sum of family annual income

		40-49yr		50-59yr		60-69yr		70-79yr		80yr-		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
Not recorded	Male	3	1.0	2	0.7	6	2.0	6	2.4	4	7.5	21	1.8
	Female	2	0.7	4	1.4	5	1.8	22	7.7	11	18.6	44	3.7
	Total	5	0.9	6	1.0	11	1.9	28	5.2	15	13.4	65	2.7
Less than 1,500,000yen	Male	2	0.7	2	0.7	4	1.3	9	3.5	2	3.8	19	1.6
	Female	3	1.0	4	1.4	12	4.4	21	7.4	5	8.5	45	3.8
	Total	5	0.9	6	1.0	16	2.8	30	5.6	7	6.3	64	2.7
Between 1,500,000 and 2,490,000 yen	Male	2	0.7	3	1.0	23	7.7	17	6.7	5	9.4	50	4.2
	Female	4	1.4	7	2.5	20	7.3	41	14.4	10	16.9	82	6.9
	Total	6	1.0	10	1.7	43	7.5	58	10.7	15	13.4	132	5.5
Between 2,500,000 and 3,490,000 yen	Male	4	1.4	5	1.7	50	16.7	63	24.7	10	18.9	132	11.1
	Female	10	3.4	14	4.9	53	19.4	60	21.1	12	20.3	149	12.5
	Total	14	2.4	19	3.3	103	18.0	123	22.8	22	19.6	281	11.8
Between 3,500,000 and 4,490,000 yen	Male	10	3.5	10	3.4	49	16.3	55	21.6	14	26.4	138	11.6
	Female	16	5.4	14	4.9	45	16.5	36	12.6	7	11.9	118	9.9
	Total	26	4.5	24	4.2	94	16.4	91	16.9	21	18.8	256	10.7
Between 4,500,000 and 5,490,000 yen	Male	32	11.2	25	8.5	39	13.0	23	9.0	10	18.9	129	10.8
	Female	26	8.8	20	7.1	30	11.0	22	7.7	1	1.7	99	8.3
	Total	58	10.0	45	7.8	69	12.0	45	8.3	11	9.8	228	9.6
Between 5,500,000 and 6,490,000 yen	Male	52	18.2	12	4.1	33	11.0	19	7.5	0	0.0	116	9.8
	Female	34	11.6	19	6.7	21	7.7	15	5.3	6	10.2	95	8.0
	Total	86	14.8	31	5.4	54	9.4	34	6.3	6	5.4	211	8.9
Between 6,500,000 and 7,490,000 yen	Male	46	16.1	23	7.8	16	5.3	14	5.5	0	0.0	99	8.3
	Female	40	13.6	20	7.1	24	8.8	11	3.9	0	0.0	95	8.0
	Total	86	14.8	43	7.4	40	7.0	25	4.6	0	0.0	194	8.1
Between 7,500,000 and 8,490,000 yen	Male	43	15.0	32	10.8	19	6.3	10	3.9	0	0.0	104	8.7

(Continued)



Sum of family annual income

		40-49yr		50-59yr		60-69yr		70-79yr		80yr-		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
Between 7,500,000 and 8,490,000 yen	Female	38	12.9	29	10.2	15	5.5	13	4.6	1	1.7	96	8.0
	Total	81	14.0	61	10.6	34	5.9	23	4.3	1	0.9	200	8.4
Between 8,500,000 and 9,999,000 yen	Male	44	15.4	65	22.0	19	6.3	9	3.5	3	5.7	140	11.8
	Female	41	13.9	45	15.9	21	7.7	14	4.9	3	5.1	124	10.4
	Total	85	14.7	110	19.0	40	7.0	23	4.3	6	5.4	264	11.1
Between 10,000,000 and 19,000,000 yen	Male	42	14.7	105	35.6	35	11.7	23	9.0	5	9.4	210	17.7
	Female	74	25.2	99	35.0	21	7.7	22	7.7	3	5.1	219	18.3
	Total	116	20.0	204	35.3	56	9.8	45	8.3	8	7.1	429	18.0
More than 20,000,000 yen	Male	6	2.1	11	3.7	7	2.3	7	2.7	0	0.0	31	2.6
	Female	6	2.0	8	2.8	6	2.2	8	2.8	0	0.0	28	2.3
	Total	12	2.1	19	3.3	13	2.3	15	2.8	0	0.0	59	2.5

Level of satisfaction in annual income

		40-49yr		50-59yr		60-69yr		70-79yr		80yr-		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
Not recorded	Male	3	1.0	0	0.0	2	0.7	1	0.4	1	1.9	7	0.6
	Female	1	0.3	0	0.0	0	0.0	3	1.1	1	1.7	5	0.4
	Total	4	0.7	0	0.0	2	0.3	4	0.7	2	1.8	12	0.5
Very satisfied	Male	20	7.0	22	7.5	30	10.0	28	11.0	6	11.3	106	8.9
	Female	32	10.9	43	15.2	32	11.7	46	16.1	13	22.0	166	13.9
	Total	52	9.0	65	11.2	62	10.8	74	13.7	19	17.0	272	11.4
Satisfied	Male	73	25.5	92	31.2	94	31.3	102	40.0	26	49.1	387	32.5
	Female	101	34.4	103	36.4	105	38.5	111	38.9	27	45.8	447	37.4
	Total	174	30.0	195	33.7	199	34.7	213	39.4	53	47.3	834	35.0
Not determined	Male	67	23.4	87	29.5	91	30.3	70	27.5	16	30.2	331	27.8
	Female	52	17.7	79	27.9	74	27.1	64	22.5	8	13.6	277	23.2
	Total	119	20.5	166	28.7	165	28.8	134	24.8	24	21.4	608	25.5
Unsatisfied	Male	94	32.9	78	26.4	65	21.7	41	16.1	4	7.5	282	23.7
	Female	92	31.3	52	18.4	51	18.7	47	16.5	9	15.3	251	21.0
	Total	186	32.1	130	22.5	116	20.2	88	16.3	13	11.6	533	22.4
Very unsatisfied	Male	29	10.1	16	5.4	18	6.0	13	5.1	0	0.0	76	6.4
	Female	16	5.4	6	2.1	11	4.0	14	4.9	1	1.7	48	4.0
	Total	45	7.8	22	3.8	29	5.1	27	5.0	1	0.9	124	5.2

## VIII. Visual and Auditory Examinations

## VIII. Visual and Auditory Examinations

### 1) Visual system

#### 1. Refraction

Autorefraction was obtained with the NIDEK-ARK700A. Refractive errors, in spherical equivalent, were assessed.

#### 2. Visual acuity (5 m)

Distant visual acuity was measured for each eye with a Landolt C letter at 5m. Presenting visual acuity was measured with the participant's current distance correction; when distance correction was not used, the unaided distant visual acuity was measured. Subsequently, best-corrected visual acuity for each eye was determined after objective autorefraction and subjective refinement.

#### 3. Contrast sensitivity

Contrast sensitivity was measured at 1.5, 3, 6, 12, 18 cycles per degree with Vistech VCTS-6500.

#### 4. Intraocular pressure

Intraocular pressure was measured three times for each eye with a noncontact tomometer (NIDEK NT-3000) between 9 and 12 AM. The mean value of the three measurements was used for analysis.

#### 5. Retinal fundus camera

Fundus photographs were taken with Topcon fundus camera (TRC-NW5S) at 20 and 45 degree angles for each eye without pupil dilatation. Diabetic retinopathy, arteriosclerosis, and macular degeneration were assessed on the photograph at 45 degree angles. Vertical cup to disc ratio was measured on the photograph at 20 degree angles.

#### 6. Specular microscope

Corneal thickness was obtained with the Topcon SP-2000 specular microscope.

## 2) Auditory system

### 1. Pure-tone audiometry

Air conduction thresholds at 125,250,500,1000,2000,4000,8000Hz(dBHL)

Bone conduction thresholds at 250,500,1000,2000,4000Hz(dBHL)

Pure-tone audiometry (Audiometer RION AA-73A)

※ If no response occurs at the maximum output level of this audiometer, the threshold is treated as following.

	Air conduction		Bone conduction	
	Maximum output level	Input level	Maximum output level	Input level
125Hz	70	75	-	-
250Hz	85	90	55	60
500Hz	100	105	65	70
1000Hz	100	105	70	75
2000Hz	100	105	70	75
4000Hz	100	105	60	65
8000Hz	95	100	-	-

### 2. Impedance audiometry

#### (1) Single frequency tympanometry

Tympanometric peak pressure in the single frequency tympanogram at 226Hz(daPa)

Static compliance in the single frequency tympanogram at 226Hz(ml)

#### (2) Multifrequency tympanometry

Middle ear resonance frequency(Hz)

### 3. Distortion product otoacoustic emission (DPOAE)

Signal-to-noise differences of the DPOAEs in the DP-gram (= DP amplitude above the noise floor)  
(dB SPL)

1) Visual system

1. Refraction

Autorefracton was obtained with the NIDEK-ARK700A. Refractive errors, in spherical equivalent, were assessed.

Spherical Equivalent of Refractive Error - Right Eye (Diopters)

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80 - yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	-1.64	1.55	284	-1.38	1.51	292	-0.67	1.34	292	-0.30	1.02	242	-0.70	0.96	50	-1.01	1.46	1160
Female	-1.63	1.56	293	-1.11	1.46	282	-0.46	1.49	271	-0.16	1.36	257	-0.82	1.55	52	-0.86	1.58	1155
Total	-1.64	1.56	577	-1.25	1.49	574	-0.57	1.41	563	-0.23	1.21	499	-0.76	1.29	102	-0.94	1.52	2315

Spherical Equivalent of Refractive Error - Left Eye (Diopters)

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80 - yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	-1.64	1.49	286	-1.31	1.42	291	-0.61	1.21	292	-0.23	1.02	236	-0.54	0.98	43	-0.96	1.40	1148
Female	-1.58	1.52	294	-1.09	1.38	281	-0.47	1.45	263	-0.12	1.18	265	-0.67	1.04	51	-0.83	1.48	1154
Total	-1.61	1.50	580	-1.20	1.40	572	-0.54	1.33	555	-0.17	1.11	501	-0.61	1.01	94	-0.90	1.45	2302

2. Visual acuity: distant vision (5 m)

Distant visual acuity was measured for each eye with a Landolt C letter at 5m.  
 Presenting visual acuity was measured with the participant's current distance correction;  
 when distance correction was not used, the unaided distant visual acuity was measured.  
 Subsequently, best-corrected visual acuity for each eye was determined  
 after objective autorefraction and subjective refinement.

Presenting Visual Acuity - Right Eye

		40 - 49yr		50 - 59yr		60 - 69yr		70 - 79yr		80 - yr		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
not recorded	Male	-	0.0	-	0.0	1	0.3	1	0.4	-	0.0	2	0.2
	Female	-	0.0	-	0.0	-	0.0	2	0.7	-	0.0	2	0.2
	Total	-	0.0	-	0.0	1	0.2	3	0.6	-	0.0	4	0.2
0.3 or worse	Male	2	0.7	6	2.0	8	2.7	14	5.5	4	7.5	34	2.9
	Female	2	0.7	2	0.7	11	4.0	26	9.1	10	16.9	51	4.3
	Total	4	0.7	8	1.4	19	3.3	40	7.4	14	12.5	85	3.6
0.3-0.6	Male	11	3.8	22	7.5	36	12.0	64	25.1	21	39.6	154	13.0
	Female	15	5.1	42	14.8	38	13.9	74	26.0	21	35.6	190	15.9
	Total	26	4.5	64	11.1	74	12.9	138	25.6	42	37.5	344	14.4
0.7 or better	Male	273	95.5	267	90.5	255	85.0	176	69.0	28	52.8	999	84.0
	Female	277	94.2	239	84.5	224	82.1	183	64.2	28	47.5	951	79.6
	Total	550	94.8	506	87.5	479	83.6	359	66.5	56	50.0	1950	81.8

Presenting Visual Acuity - Left Eye

		40 - 49yr		50 - 59yr		60 - 69yr		70 - 79yr		80 - yr		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
not recorded	Male	-	0.0	2	0.7	-	0.0	-	0.0	1	1.9	3	0.3
	Female	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0
	Total	-	0.0	2	0.3	-	0.0	-	0.0	1	0.9	3	0.1
0.3 or worse	Male	1	0.3	1	0.3	6	2.0	17	6.7	2	3.8	27	2.3
	Female	3	1.0	7	2.5	12	4.4	20	7.0	9	15.3	51	4.3
	Total	4	0.7	8	1.4	18	3.1	37	6.9	11	9.8	78	3.3
0.3-0.6	Male	15	5.2	23	7.8	35	11.7	71	27.8	22	41.5	166	14.0
	Female	11	3.7	32	11.3	37	13.6	88	30.9	20	33.9	188	15.7
	Total	26	4.5	55	9.5	72	12.6	159	29.4	42	37.5	354	14.9
0.7 or better	Male	270	94.4	269	91.2	259	86.3	167	65.5	28	52.8	993	83.5
	Female	280	95.2	244	86.2	224	82.1	177	62.1	30	50.8	955	80.0
	Total	550	94.8	513	88.8	483	84.3	344	63.7	58	51.8	1948	81.7

Best-corrected Visual Acuity - Right Eye

		40 - 49yr		50 - 59yr		60 - 69yr		70 - 79yr		80 - yr		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
not recorded	Male	-	0.0	-	0.0	1	0.3	1	0.4	-	0.0	2	0.2
	Female	-	0.0	-	0.0	-	0.0	2	0.7	-	0.0	2	0.2
	Total	-	0.0	-	0.0	1	0.2	3	0.6	-	0.0	4	0.2
0.3 or worse	Male	-	0.0	2	0.7	4	1.3	7	2.7	1	1.9	14	1.2
	Female	-	0.0	-	0.0	2	0.7	13	4.6	6	10.2	21	1.8
	Total	-	0.0	2	0.3	6	1.0	20	3.7	7	6.3	35	1.5
0.3-0.6	Male	4	1.4	5	1.7	17	5.7	38	14.9	14	26.4	78	6.6
	Female	2	0.7	7	2.5	16	5.9	49	17.2	15	25.4	89	7.5
	Total	6	1.0	12	2.1	33	5.8	87	16.1	29	25.9	167	7.0
0.7 or better	Male	282	98.6	288	97.6	278	92.7	209	82.0	38	71.7	1095	92.1
	Female	292	99.3	276	97.5	255	93.4	221	77.5	38	64.4	1082	90.6
	Total	574	99.0	564	97.6	533	93.0	430	79.6	76	67.9	2177	91.4

Best-corrected Visual Acuity - Left Eye

		40 - 49yr		50 - 59yr		60 - 69yr		70 - 79yr		80 - yr		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
not recorded	Male	-	0.0	2	0.7	-	0.0	-	0.0	1	1.9	3	0.3
	Female	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0
	Total	-	0.0	2	0.3	-	0.0	-	0.0	1	0.9	3	0.1
0.3 or worse	Male	-	0.0	-	0.0	4	1.3	7	2.7	1	1.9	12	1.0
	Female	1	0.3	1	0.4	3	1.1	14	4.9	7	11.9	26	2.2
	Total	1	0.2	1	0.2	7	1.2	21	3.9	8	7.1	38	1.6
0.3-0.6	Male	-	0.0	3	1.0	13	4.3	37	14.5	14	26.4	67	5.6
	Female	2	0.7	1	0.4	17	6.2	40	14.0	14	23.7	74	6.2
	Total	2	0.3	4	0.7	30	5.2	77	14.3	28	25.0	141	5.9
0.7 or better	Male	286	100.0	290	98.3	283	94.3	211	82.7	37	69.8	1107	93.1
	Female	291	99.0	281	99.3	253	92.7	231	81.1	38	64.4	1094	91.6
	Total	577	99.5	571	98.8	536	93.5	442	81.9	75	67.0	2201	92.4



### 3. Contrast sensitivity

Contrast sensitivity was measured at 1.5, 3, 6, 12, 18 cycles per degree with Vistech VCTS-6500.

#### Contrast Sensitivity at 1.5 cycles/degree

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80 - yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	46.3	21.1	286	44.9	20.2	293	39.5	15.8	298	35.5	14.0	252	32.2	14.7	53	41.3	18.5	1182
Female	42.5	18.1	294	41.4	16.9	283	38.1	14.4	273	32.8	13.0	279	31.9	15.2	55	38.5	16.2	1184
Total	44.4	19.7	580	43.2	18.7	576	38.9	15.1	571	34.1	13.5	531	32.0	14.9	108	39.9	17.5	2366

#### Contrast Sensitivity at 3 cycles/degree

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80 - yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	109.1	45.3	286	100.6	45.0	293	92.8	45.9	298	69.5	38.9	252	58.5	37.7	53	92.2	46.5	1182
Female	104.0	42.9	294	104.9	45.8	283	88.6	45.4	273	64.1	35.3	279	56.1	34.8	55	89.0	45.8	1184
Total	106.5	44.1	580	102.7	45.4	576	90.8	45.7	571	66.6	37.1	531	57.3	36.1	108	90.6	46.1	2366

#### Contrast Sensitivity at 6 cycles/degree

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80 - yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	114.3	50.3	286	108.4	51.1	293	92.2	50.0	298	58.9	37.2	252	39.6	24.3	53	92.1	52.4	1182
Female	114.3	52.6	294	113.9	52.3	283	94.4	53.8	273	53.9	36.7	279	40.5	30.0	55	92.0	55.4	1184
Total	114.3	51.4	580	111.1	51.7	576	93.3	51.8	571	56.3	37.0	531	40.1	27.2	108	92.1	53.9	2366

#### Contrast Sensitivity at 12 cycles/degree

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80 - yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	64.2	35.6	286	57.8	35.9	293	49.8	36.2	298	23.8	25.1	252	17.4	19.6	53	48.3	36.9	1182
Female	66.7	38.5	294	61.7	38.9	283	49.8	38.2	273	23.6	27.2	279	13.4	13.6	55	49.0	39.7	1184
Total	65.4	37.1	580	59.7	37.4	576	49.8	37.1	571	23.7	26.2	531	15.3	16.9	108	48.6	38.3	2366

Contrast Sensitivity at 18 cycles/degree

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80 - yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	20.2	14.1	286	18.1	13.1	293	14.5	12.3	298	7.8	9.3	252	4.2	7.1	53	14.9	13.2	1182
Female	22.0	14.1	294	20.0	13.5	283	14.4	12.3	273	6.4	7.7	279	4.9	6.8	55	15.3	13.6	1184
Total	21.1	14.1	580	19.0	13.3	576	14.4	12.3	571	7.1	8.6	531	4.5	6.9	108	15.1	13.4	2366

4. Intraocular pressure

Intraocular pressure was measured three times for each eye with a noncontact tomometer (NIDEK NT-3000) between 9 and 12 AM. The mean value of the three measurements was used for analysis.

Intraocular Pressure - Right Eye (mmHg)

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80 - yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	12.85	2.54	285	12.73	2.65	295	12.51	2.79	299	11.87	2.52	254	12.02	3.21	53	12.49	2.68	1186
Female	12.39	2.61	294	12.05	2.50	283	12.26	2.45	273	12.00	2.81	284	10.99	3.00	59	12.12	2.63	1193
Total	12.62	2.59	579	12.40	2.60	578	12.39	2.64	572	11.94	2.67	538	11.48	3.13	112	12.30	2.66	2379

Intraocular Pressure - Left Eye (mmHg)

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80 - yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	12.84	2.67	286	12.88	2.76	294	12.48	2.68	300	11.93	2.68	255	11.90	2.54	53	12.52	2.72	1188
Female	12.34	2.66	294	11.99	2.32	283	12.37	2.44	273	12.08	2.60	284	11.49	2.58	58	12.16	2.52	1192
Total	12.59	2.67	580	12.44	2.59	577	12.43	2.57	573	12.01	2.63	539	11.68	2.56	111	12.34	2.63	2380

5. Retinal fundus camera

Fundus photographs were taken with Topcon fundus camera (TRC-NW5S) at 20 and 45 degree angles for each eye without pupil dilatation.

Diabetic retinopathy, Arteriosclerosis, and macular degeneration were assessed on the photograph at 45 degree angles.

Vertical cup to disc ratio was measured on the photograph at 20 degree angles.

Cup-Disc Ratio of Optic Disc - Right Eye

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80 - yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.50	0.11	286	0.51	0.10	295	0.51	0.10	294	0.52	0.12	248	0.57	0.11	51	0.51	0.11	1174
Female	0.49	0.10	294	0.49	0.10	282	0.50	0.12	270	0.53	0.12	275	0.54	0.10	54	0.50	0.11	1175
Total	0.49	0.10	580	0.50	0.10	577	0.51	0.11	564	0.52	0.12	523	0.55	0.10	105	0.51	0.11	2349

Cup-Disc Ratio of Optic Disc - Left Eye

	40 - 49yr			50 - 59yr			60 - 69yr			70 - 79yr			80 - yr			Total		
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	0.49	0.10	286	0.50	0.10	292	0.50	0.11	294	0.51	0.11	249	0.54	0.10	51	0.50	0.11	1172
Female	0.47	0.11	294	0.48	0.10	281	0.50	0.12	270	0.52	0.11	271	0.53	0.11	55	0.49	0.11	1171
Total	0.48	0.10	580	0.49	0.10	573	0.50	0.12	564	0.52	0.11	520	0.53	0.10	106	0.50	0.11	2343