

# VIII. Visual and Auditory Examinations

## 1) Visual system

### 1. Refraction

Autorefractometry was obtained with the NIDEK-ARK700A. Refractive errors in spherical equivalents were assessed.

### 2. Visual acuity (5 m)

Distant visual acuity was measured for each eye with a Landolt C chart at 5 m. 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 autorefractometry and subjective refinement.

### 3. Visual acuity: near vision (33cm)

Presenting near vision was measured with the participant's current near correction for each eye with a Landolt C chart designed for use at 33 cm. When near correction was unused, the unaided near vision was measured.

### 4. Contrast sensitivity

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

### 5. Intraocular pressure (mmHg)

Intraocular pressure was measured three times in each eye from 9:00 am to 12:00 am by non-contact tonometer (NIDEK NT-3000). Mean value of three measurements was determined as intraocular pressure.

### 6. Retinal fundus camera

Fundus photographs were taken with Topcon non-mydratic retinal camera (TRC-NW6S) at 30 and 45 degree angles for each eye without pupil dilation. Arteriosclerosis (Keith-Wagener) and diabetic retinopathy were assessed on the photograph at 45 degree angles.

## 2) Auditory system

### 1. Pure-tone audiometry

Air conduction thresholds at 125, 250, 500, 1000, 2000, 3000, 4000, 6000, 8000 Hz (dBHL)

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

Pure-tone audiometry (Audiometer RION AA-78)

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

	Air conduction		Bone conduction	
	Maximum output level	Inputted level	Maximum output level	Inputted level
125 Hz	70	75	-	-
250 Hz	85	90	55	60
500 Hz	100	105	65	70
1000 Hz	100	105	70	75
2000 Hz	100	105	70	75
3000 Hz	100	105	-	-
4000 Hz	100	105	60	65
6000 Hz	100	105	-	-
8000 Hz	95	100	-	-

### 2. Impedance audiometry

Middle Ear Analyzer (Grason-Stadler model 33, version 2)

[226Hz single frequency tympanogram] Tympanometric peak pressure (daPa)

[226Hz single frequency tympanogram] Static compliance (ml)

[Continuous frequency tympanogram] Middle ear resonance frequency (Hz)

### 3. Video recording of tympanic membrane

Otoscopic CCD camera MP-5(RF SYSTEM lab.)

Two otologists classify status of one's ear canals and eardrums into the following 4 categories.

- Normal
- A-B gap suspected
- Wax
- Not recorded

## 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	-1.86	1.55	267	-1.61	1.57	264	-1.06	1.36	279	-0.50	1.17	245	-0.81	0.98	93	-1.23	1.48	1148
Female	-1.78	1.74	274	-1.40	1.55	259	-0.72	1.53	259	-0.36	1.27	238	-0.49	1.05	95	-1.04	1.60	1125
Total	-1.82	1.65	541	-1.51	1.56	523	-0.89	1.45	538	-0.43	1.22	483	-0.65	1.02	188	-1.14	1.55	2273

### 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	-1.81	1.55	265	-1.60	1.52	264	-1.06	1.34	275	-0.43	1.07	247	-0.80	1.03	90	-1.20	1.46	1141
Female	-1.79	1.76	273	-1.32	1.42	259	-0.67	1.34	257	-0.31	1.08	223	-0.45	1.13	94	-1.01	1.52	1106
Total	-1.80	1.66	538	-1.46	1.48	523	-0.87	1.35	532	-0.37	1.08	470	-0.62	1.09	184	-1.11	1.49	2247

## 2. Visual acuity: distant vision (5 m)

Distant visual acuity was measured for each eye with a Landolt C chart 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 autorefracton 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	0.0	0	0.0	1	0.4	1	1.0	2	0.2
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	0	0.0	0	0.0	0	0.0	1	0.2	1	0.5	2	0.1
0.3 or worse	Male	1	0.4	6	2.3	9	3.2	9	3.4	9	9.1	34	2.9
	Female	2	0.7	3	1.2	5	1.9	13	5.3	13	12.4	36	3.1
	Total	3	0.6	9	1.7	14	2.6	22	4.3	22	10.8	70	3.0
0.3-0.6	Male	23	8.6	26	9.8	42	14.8	64	24.4	28	28.3	183	15.5
	Female	28	10.1	28	10.8	33	12.5	76	30.9	41	39.0	206	17.9
	Total	51	9.4	54	10.3	75	13.7	140	27.6	69	33.8	389	16.7
0.7 or better	Male	244	91.0	233	87.9	233	82.0	188	71.8	61	61.6	959	81.4
	Female	246	89.1	229	88.1	227	85.7	157	63.8	51	48.6	910	79.0
	Total	490	90.1	462	88.0	460	83.8	345	67.9	112	54.9	1869	80.2

### 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	1	0.4	0	0.0	1	0.4	0	0.0	0	0.0	2	0.2
	Female	0	0.0	0	0.0	0	0.0	0	0.0	1	1.0	1	0.1
	Total	1	0.2	0	0.0	1	0.2	0	0.0	1	0.5	3	0.1
0.3 or worse	Male	3	1.1	7	2.6	6	2.1	12	4.6	8	8.1	36	3.1
	Female	4	1.4	5	1.9	1	0.4	13	5.3	11	10.5	34	3.0
	Total	7	1.3	12	2.3	7	1.3	25	4.9	19	9.3	70	3.0
0.3-0.6	Male	18	6.7	23	8.7	32	11.3	67	25.6	33	33.3	173	14.7
	Female	20	7.2	24	9.2	45	17.0	77	31.3	37	35.2	203	17.6

	Total	38	7.0	47	9.0	77	14.0	144	28.3	70	34.3	376	16.1
0.7 or better	Male	246	91.8	235	88.7	245	86.3	183	69.8	58	58.6	967	82.1
	Female	252	91.3	231	88.8	219	82.6	156	63.4	56	53.3	914	79.3
	Total	498	91.5	466	88.8	464	84.5	339	66.7	114	55.9	1881	80.7

#### 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	0.0	2	0.7	1	0.4	1	1.0	4	0.3
	Female	0	0.0	1	0.4	0	0.0	0	0.0	0	0.0	1	0.1
	Total	0	0.0	1	0.2	2	0.4	1	0.2	1	0.5	5	0.2
0.3 or worse	Male	0	0.0	1	0.4	2	0.7	2	0.8	3	3.0	8	0.7
	Female	1	0.4	1	0.4	2	0.8	3	1.2	4	3.8	11	1.0
	Total	1	0.2	2	0.4	4	0.7	5	1.0	7	3.4	19	0.8
0.3-0.6	Male	0	0.0	3	1.1	12	4.2	37	14.1	25	25.3	77	6.5
	Female	3	1.1	7	2.7	13	4.9	41	16.7	37	35.2	101	8.8
	Total	3	0.6	10	1.9	25	4.6	78	15.4	62	30.4	178	7.6
0.7 or better	Male	268	100.0	261	98.5	268	94.4	222	84.7	70	70.7	1089	92.4
	Female	272	98.6	251	96.5	250	94.3	202	82.1	64	61.0	1039	90.2
	Total	540	99.3	512	97.5	518	94.4	424	83.5	134	65.7	2128	91.3

#### 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	1	0.4	0	0.0	2	0.7	0	0.0	0	0.0	3	0.3
	Female	0	0.0	0	0.0	0	0.0	0	0.0	1	1.0	1	0.1
	Total	1	0.2	0	0.0	2	0.4	0	0.0	1	0.5	4	0.2
0.3 or worse	Male	1	0.4	0	0.0	4	1.4	7	2.7	4	4.0	16	1.4
	Female	3	1.1	1	0.4	1	0.4	4	1.6	5	4.8	14	1.2
	Total	4	0.7	1	0.2	5	0.9	11	2.2	9	4.4	30	1.3
0.3-0.6	Male	2	0.7	0	0.0	14	4.9	31	11.8	23	23.2	70	5.9
	Female	1	0.4	6	2.3	14	5.3	44	17.9	30	28.6	95	8.2
	Total	3	0.6	6	1.1	28	5.1	75	14.8	53	26.0	165	7.1
0.7 or better	Male	264	98.5	265	100.0	264	93.0	224	85.5	72	72.7	1089	92.4
	Female	272	98.6	253	97.3	250	94.3	198	80.5	69	65.7	1042	90.5
	Total	536	98.5	518	98.7	514	93.6	422	83.1	141	69.1	2131	91.5

### 3. Visual acuity: near vision (33cm)

Presenting near vision was measured with the participant's current near correction for each eye with a Landolt C chart designed for use at 33 cm; when near correction was not used, the unaided near vision was measured.

#### Presenting Near Visual Acuity - Right Eye

		40-49yr		50-59yr		60-69yr		70-79yr		80 - yr		計	
		N	%	N	%	N	%	N	%	N	%	N	%
0.3 or worse	Male	2	0.7	14	5.3	17	6.0	32	12.2	22	22.2	87	7.4
	Female	2	0.7	4	1.5	22	8.3	25	10.2	17	16.2	70	6.1
	計	4	0.7	18	3.4	39	7.1	57	11.2	39	19.1	157	6.7
0.3-0.6	Male	44	16.4	92	34.7	121	42.6	155	59.2	51	51.5	463	39.3
	Female	45	16.3	115	44.2	124	46.8	136	55.3	56	53.3	476	41.3
	計	89	16.4	207	39.4	245	44.6	291	57.3	107	52.5	939	40.3

0.7 or better	Male	222	82.8	159	60.0	146	51.4	75	28.6	26	26.3	628	53.3
	Female	229	83.0	141	54.2	119	44.9	85	34.6	32	30.5	606	52.6
	計	451	82.9	300	57.1	265	48.3	160	31.5	58	28.4	1234	53.0

Presenting Near Visual Acuity - Left Eye

		40-49yr		50-59yr		60-69yr		70-79yr		80 - yr		計	
		N	%	N	%	N	%	N	%	N	%	N	%
not recorded	Male	0	0.0	0	0.0	1	0.4	0	0.0	0	0.0	1	0.1
	Female	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	計	0	0.0	0	0.0	1	0.2	0	0.0	0	0.0	1	0.0
0.3 or worse	Male	4	1.5	5	1.9	26	9.2	40	15.3	19	19.2	94	8.0
	Female	7	2.5	5	1.9	20	7.5	31	12.6	21	20.0	84	7.3
	計	11	2.0	10	1.9	46	8.4	71	14.0	40	19.6	178	7.6
0.3-0.6	Male	38	14.2	93	35.1	97	34.2	131	50.0	58	58.6	417	35.4
	Female	33	12.0	97	37.3	117	44.2	115	46.7	50	47.6	412	35.8
	計	71	13.1	190	36.2	214	39.0	246	48.4	108	52.9	829	35.6
0.7 or better	Male	226	84.3	167	63.0	160	56.3	91	34.7	22	22.2	666	56.5
	Female	236	85.5	158	60.8	128	48.3	100	40.7	34	32.4	656	56.9
	計	462	84.9	325	61.9	288	52.5	191	37.6	56	27.5	1322	56.7

4. 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 - 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	42.9	20.1	267	39.5	17.9	265	37.7	15.8	283	33.5	13.8	259	29.4	11.6	96	37.7	17.2	1170
Female	38.7	13.9	274	41.2	16.8	259	34.6	11.6	263	33.1	12.0	242	29.3	10.8	101	36.3	14.0	1139
Total	40.8	17.4	541	40.3	17.3	524	36.2	14.0	546	33.3	13.0	501	29.3	11.2	197	37.0	15.7	2309

Contrast Sensitivity at 3 cycles/degree - 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	112.3	51.8	267	98.5	50.4	265	92.1	50.4	283	71.2	45.4	259	51.0	31.7	96	90.2	51.6	1170
Female	105.4	51.2	274	105.4	53.1	259	92.0	51.8	263	72.7	46.5	242	52.2	33.7	101	90.7	52.4	1139
Total	108.8	51.5	541	101.9	51.8	524	92.1	51.0	546	71.9	45.9	501	51.6	32.7	197	90.4	52.0	2309

Contrast Sensitivity at 6 cycles/degree - 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	103.7	54.1	267	90.5	54.5	265	82.8	52.0	283	56.0	42.3	259	39.7	32.7	96	79.8	53.7	1170
Female	100.8	56.6	274	98.9	62.8	259	81.8	51.8	263	54.5	42.8	242	38.3	22.7	101	80.6	56.5	1139
Total	102.2	55.3	541	94.7	58.9	524	82.3	51.9	546	55.3	42.5	501	39.0	27.9	197	80.2	55.1	2309

Contrast Sensitivity at 12 cycles/degree - 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	48.8	32.7	267	44.0	34.8	265	33.9	29.7	283	21.2	22.9	259	12.1	16.8	96	35.0	31.9	1170

Female	46.2	32.9	274	44.1	37.1	259	35.4	30.3	263	19.0	21.2	242	11.3	13.1	101	34.4	32.3	1139
Total	47.5	32.8	541	44.0	35.9	524	34.7	30.0	546	20.1	22.1	501	11.7	15.0	197	34.7	32.1	2309

Contrast Sensitivity at 18 cycles/degree - 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	14.7	12.2	267	11.9	11.5	265	9.2	9.4	283	4.6	6.9	259	2.6	5.3	96	9.5	10.7	1170
Female	13.6	11.5	274	13.1	12.4	259	9.5	9.2	263	4.2	5.9	242	2.6	4.3	101	9.6	10.6	1139
Total	14.2	11.9	541	12.5	12.0	524	9.3	9.3	546	4.4	6.4	501	2.6	4.8	197	9.5	10.7	2309

5. 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	13.18	2.89	266	13.05	2.68	265	12.43	2.63	284	12.09	3.16	261	11.57	2.76	98	12.59	2.88	1174
Female	12.58	2.68	273	12.38	2.54	260	12.26	2.70	265	12.07	2.49	246	11.55	2.51	104	12.26	2.61	1148
Total	12.88	2.80	539	12.72	2.63	525	12.34	2.66	549	12.08	2.86	507	11.56	2.63	202	12.43	2.76	2322

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	13.27	2.94	265	13.20	2.63	265	12.95	2.82	282	12.17	2.85	261	12.00	3.06	99	12.82	2.87	1172
Female	12.77	2.76	273	12.55	2.58	260	12.55	2.69	265	12.40	2.65	246	11.74	2.45	104	12.50	2.66	1148
Total	13.02	2.86	538	12.88	2.62	525	12.75	2.76	547	12.28	2.75	507	11.87	2.76	203	12.66	2.77	2320

6. Retinal fundus camera

Fundus photographs were taken with Topcon fundus camera (TRC-NW6S) at 30 and 45 degree angles for each eye without pupil dilatation.

Arteriosclerosis was assessed on the photograph at 45 degree angles.

Arteriosclerosis (Keith-Wagener) - Right Eye

		40-49yr		50-59yr		60-69yr		70-79yr		80 - yr		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
not recorded	Male	1	0.4	0	0.0	0	0.0	1	0.4	1	1.0	3	0.3
	Female	0	0.0	0	0.0	0	0.0	2	0.8	1	1.0	3	0.3
	Total	1	0.2	0	0.0	0	0.0	3	0.6	2	1.0	6	0.3
nothing	Male	266	99.3	259	97.7	271	95.4	247	94.3	84	84.8	1127	95.7
	Female	270	97.8	256	98.5	257	97.0	226	91.9	96	91.4	1105	95.9
	Total	536	98.5	515	98.1	528	96.2	473	93.1	180	88.2	2232	95.8
K-W I	Male	0	0.0	4	1.5	2	0.7	1	0.4	0	0.0	7	0.6
	Female	4	1.4	3	1.2	2	0.8	2	0.8	1	1.0	12	1.0
	Total	4	0.7	7	1.3	4	0.7	3	0.6	1	0.5	19	0.8
invisible	Male	1	0.4	2	0.8	11	3.9	13	5.0	14	14.1	41	3.5
	Female	2	0.7	1	0.4	6	2.3	16	6.5	7	6.7	32	2.8
	Total	3	0.6	3	0.6	17	3.1	29	5.7	21	10.3	73	3.1

Arteriosclerosis (Keith-Wagener) - Left Eye

		40-49yr		50-59yr		60-69yr		70-79yr		80 - yr		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
not recorded	Male	2	0.7	0	0.0	2	0.7	0	0.0	1	1.0	5	0.4
	Female	0	0.0	0	0.0	0	0.0	2	0.8	1	1.0	3	0.3
	Total	2	0.4	0	0.0	2	0.4	2	0.4	2	1.0	8	0.3
nothing	Male	264	98.5	256	96.6	269	94.7	242	92.4	85	85.9	1116	94.7
	Female	269	97.5	254	97.7	251	94.7	220	89.4	87	82.9	1081	93.8
	Total	533	98.0	510	97.1	520	94.7	462	90.9	172	84.3	2197	94.3
K-W I	Male	0	0.0	3	1.1	2	0.7	2	0.8	0	0.0	7	0.6
	Female	3	1.1	2	0.8	2	0.8	2	0.8	1	1.0	10	0.9
	Total	3	0.6	5	1.0	4	0.7	4	0.8	1	0.5	17	0.7
invisible	Male	2	0.7	6	2.3	11	3.9	18	6.9	13	13.1	50	4.2
	Female	4	1.4	4	1.5	12	4.5	22	8.9	16	15.2	58	5.0
	Total	6	1.1	10	1.9	23	4.2	40	7.9	29	14.2	108	4.6

2) Auditory system

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

Air conduction threshold (dBHL) : 125, 250, 500, 1000, 2000, 3000, 4000, 6000, 8000 Hz (dBHL)

Bone conduction threshold (dBHL) : 250, 500, 1000, 2000, 4000 Hz

Air conduction threshold of right ear at 125Hz (dBHL)

	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	20.7	7.5	267	21.8	8.6	265	26.0	11.6	284	31.8	13.2	262	39.0	13.5	99	26.2	12.2	1177
Female	21.2	6.2	276	22.5	7.9	260	26.7	10.2	264	32.9	13.3	245	38.1	14.1	105	26.8	11.6	1150
Total	20.9	6.8	543	22.2	8.3	525	26.4	11.0	548	32.3	13.3	507	38.6	13.8	204	26.5	11.9	2327

Air conduction threshold of right ear at 250Hz (dBHL)

	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	19.6	7.9	267	20.5	8.3	265	25.4	12.8	284	30.9	14.4	262	38.7	15.9	99	25.3	13.1	1177
Female	20.2	6.1	276	21.7	9.2	260	26.0	10.4	264	32.5	15.5	245	38.1	15.6	105	26.1	12.7	1150
Total	19.9	7.0	543	21.1	8.7	525	25.7	11.7	548	31.7	15.0	507	38.4	15.8	204	25.7	12.9	2327

Air conduction threshold of right ear at 500Hz (dBHL)

	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	15.3	8.3	267	17.1	8.0	265	22.5	14.5	284	28.3	15.4	262	37.6	16.3	99	22.2	14.1	1177
Female	16.0	6.8	276	19.3	9.8	260	23.9	12.2	264	30.8	17.8	245	37.6	15.8	105	23.7	14.3	1150
Total	15.7	7.6	543	18.2	9.0	525	23.2	13.5	548	29.5	16.7	507	37.6	16.0	204	22.9	14.2	2327

Air conduction threshold of right ear at 1000Hz (dBHL)

	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	10.4	8.5	267	12.8	8.9	265	18.0	15.6	284	27.1	17.6	262	34.0	18.0	99	18.5	15.7	1177
Female	8.9	7.3	276	12.3	10.1	260	17.8	12.9	264	26.8	17.3	245	33.2	15.0	105	17.8	14.9	1150

Total	9.7	7.9	543	12.5	9.5	525	17.9	14.3	548	26.9	17.4	507	33.6	16.5	204	18.1	15.3	2327
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Air conduction threshold of right ear at 2000Hz (dBHL)

	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	12.1	8.9	267	16.6	11.0	265	25.2	16.8	284	35.6	18.3	262	43.5	16.5	99	24.1	17.8	1177
Female	11.6	9.3	276	16.1	10.1	260	22.5	13.2	264	32.9	17.3	245	38.0	15.2	105	22.1	15.8	1150
Total	11.9	9.1	543	16.3	10.6	525	23.9	15.2	548	34.3	17.9	507	40.7	16.0	204	23.1	16.9	2327

Air conduction threshold of right ear at 3000Hz (dBHL)

	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	11.3	10.9	267	17.3	14.3	265	28.6	20.0	284	39.8	19.5	262	50.4	15.5	99	26.5	20.8	1177
Female	9.2	9.7	276	13.8	10.6	260	20.1	13.6	264	30.8	17.9	245	38.1	15.2	105	20.0	16.5	1150
Total	10.2	10.4	543	15.6	12.7	525	24.5	17.7	548	35.4	19.2	507	44.1	16.5	204	23.3	19.1	2327

Air conduction threshold of right ear at 4000Hz (dBHL)

	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	15.4	13.4	267	23.5	16.2	265	35.6	20.6	284	46.7	19.1	262	57.0	16.3	99	32.6	22.1	1177
Female	10.3	10.1	276	15.6	11.5	260	23.3	15.1	264	35.1	19.5	245	44.5	16.2	105	22.9	18.3	1150
Total	12.8	12.1	543	19.6	14.6	525	29.7	19.1	548	41.1	20.1	507	50.6	17.4	204	27.8	20.9	2327

Air conduction threshold of right ear at 6000Hz (dBHL)

	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	13.5	13.6	267	23.7	16.1	265	35.4	20.7	284	47.5	19.9	262	58.0	17.8	99	32.4	22.9	1177
Female	9.6	11.1	276	14.9	12.5	260	24.3	15.4	264	38.2	20.1	245	48.7	17.2	105	23.9	20.0	1150
Total	11.5	12.5	543	19.4	15.0	525	30.0	19.1	548	43.0	20.5	507	53.2	18.1	204	28.2	21.9	2327

Air conduction threshold of right ear at 8000Hz (dBHL)

	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	16.0	14.3	267	28.7	17.7	265	42.9	21.4	284	58.1	19.4	262	69.3	15.1	99	39.2	25.2	1177
Female	13.7	13.0	276	21.5	15.2	260	35.3	18.7	264	52.4	20.5	245	64.9	15.8	105	33.4	24.0	1150
Total	14.9	13.7	543	25.1	16.9	525	39.3	20.5	548	55.4	20.1	507	67.0	15.6	204	36.3	24.8	2327

Bone conduction threshold of right ear at 250Hz (dBHL)

	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	9.3	267	17.8	10.8	265	21.8	10.3	284	25.2	12.6	262	27.4	12.5	99	21.2	11.5	1177
Female	18.9	8.1	276	18.0	10.7	260	21.8	9.5	264	26.0	12.0	244	28.3	16.8	105	21.7	11.5	1149
Total	18.2	8.7	543	17.9	10.7	525	21.8	9.9	548	25.6	12.3	506	27.9	14.8	204	21.4	11.5	2326

Bone conduction threshold of right ear at 500Hz (dBHL)

	40-49yr			50-59yr			60-69yr			70-79yr			80yr-			Total		
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	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	5.6	9.5	267	7.8	10.5	265	11.9	11.4	284	15.9	13.0	262	20.7	14.9	99	11.2	12.5	1177
Female	6.6	7.8	276	7.4	10.9	260	12.8	10.6	264	17.3	14.0	244	20.1	18.7	105	11.7	12.8	1149
Total	6.1	8.7	543	7.6	10.7	525	12.4	11.0	548	16.6	13.5	506	20.4	16.9	204	11.4	12.6	2326

Bone conduction threshold of right ear at 1000Hz (dBHL)

	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	11.5	9.9	267	14.8	11.3	265	20.3	13.2	284	27.6	15.4	262	32.1	15.0	99	19.7	14.5	1177
Female	12.6	9.4	276	15.2	11.0	260	21.5	12.8	264	28.4	14.6	244	30.8	17.1	105	20.2	14.2	1149
Total	12.0	9.7	543	15.0	11.2	525	20.9	13.0	548	28.0	15.0	506	31.4	16.1	204	19.9	14.4	2326

Bone conduction threshold of right ear at 2000Hz (dBHL)

	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	13.9	9.8	267	16.8	11.6	265	24.4	13.7	284	33.6	15.9	262	36.9	13.7	99	23.4	15.4	1177
Female	13.0	9.0	276	16.3	10.5	260	22.0	12.0	264	30.3	13.6	244	32.9	15.0	105	21.3	13.8	1149
Total	13.5	9.4	543	16.5	11.0	525	23.2	12.9	548	32.0	14.9	506	34.8	14.5	204	22.4	14.7	2326

Bone conduction threshold of right ear at 4000Hz (dBHL)

	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	12.0	11.8	267	19.2	14.4	265	27.0	15.6	284	36.0	15.3	262	43.0	12.6	99	25.2	17.4	1177
Female	8.8	8.7	276	13.2	10.9	260	18.5	13.1	264	27.0	14.7	244	32.4	13.7	105	18.1	14.5	1149
Total	10.4	10.5	543	16.2	13.2	525	22.9	15.0	548	31.7	15.6	506	37.5	14.2	204	21.7	16.4	2326

Air conduction threshold of left ear at 125Hz (dBHL)

	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	18.2	7.2	267	20.0	8.6	265	23.9	11.0	284	29.3	13.5	261	36.1	13.7	99	23.9	12.0	1176
Female	19.2	6.1	276	20.3	9.4	260	24.7	10.7	264	30.7	12.5	244	36.5	14.8	104	24.7	11.8	1148
Total	18.7	6.7	543	20.1	9.0	525	24.3	10.8	548	30.0	13.0	505	36.3	14.2	203	24.3	11.9	2324

Air conduction threshold of left ear at 250Hz (dBHL)

	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	16.7	8.1	267	18.7	9.2	265	22.3	11.9	284	28.5	15.4	262	36.2	15.3	99	22.8	13.2	1177
Female	17.9	6.6	276	19.9	11.0	260	23.7	11.4	264	30.2	14.0	244	37.2	17.3	104	24.0	13.1	1148
Total	17.3	7.4	543	19.3	10.1	525	22.9	11.7	548	29.3	14.7	506	36.7	16.3	203	23.4	13.2	2325

Air conduction threshold of left ear at 500Hz (dBHL)

	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	14.1	9.3	267	16.6	9.6	265	20.1	12.5	284	27.5	17.3	262	34.7	16.0	99	20.8	14.4	1177
Female	15.4	6.8	276	18.4	12.2	260	22.3	12.8	264	29.5	15.2	244	37.4	17.7	104	22.7	14.3	1148
Total	14.7	8.2	543	17.5	11.0	525	21.2	12.7	548	28.4	16.3	506	36.1	16.9	203	21.7	14.4	2325



Air conduction threshold of left ear at 1000Hz (dBHL)

	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	9.8	10.2	267	12.8	10.4	265	17.7	13.8	284	26.8	18.9	262	35.2	18.8	99	18.3	16.3	1177
Female	7.7	7.7	276	12.0	12.5	260	16.5	13.2	264	24.5	16.2	244	32.9	17.2	104	16.5	15.3	1148
Total	8.7	9.1	543	12.4	11.5	525	17.1	13.5	548	25.7	17.7	506	34.0	18.0	203	17.4	15.8	2325

Air conduction threshold of left ear at 2000Hz (dBHL)

	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	12.9	11.4	267	17.5	12.3	265	25.8	15.8	284	36.0	19.9	262	44.5	16.7	99	24.8	18.4	1177
Female	10.6	9.6	276	15.9	12.2	260	21.9	13.1	264	31.3	16.1	244	39.3	16.5	104	21.4	16.1	1148
Total	11.7	10.6	543	16.7	12.2	525	23.9	14.7	548	33.8	18.3	506	41.8	16.8	203	23.1	17.4	2325

Air conduction threshold of left ear at 3000Hz (dBHL)

	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	12.0	12.5	267	17.9	14.7	265	30.4	18.5	284	41.4	20.6	262	52.2	14.5	99	27.7	21.2	1177
Female	7.8	9.5	276	13.1	12.4	260	19.8	13.9	264	30.3	16.9	244	40.0	17.7	104	19.4	17.2	1148
Total	9.9	11.3	543	15.5	13.8	525	25.2	17.3	548	36.1	19.7	506	45.9	17.3	203	23.6	19.7	2325

Air conduction threshold of left ear at 4000Hz (dBHL)

	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	16.1	14.9	267	24.7	16.1	265	37.4	18.9	284	48.2	19.5	262	57.8	13.3	99	33.8	21.9	1177
Female	9.9	10.5	276	15.7	13.4	260	23.8	15.2	264	35.8	18.1	244	46.2	18.1	104	23.2	18.9	1148
Total	13.0	13.2	543	20.2	15.5	525	30.8	18.5	548	42.2	19.8	506	51.8	16.9	203	28.6	21.1	2325

Air conduction threshold of left ear at 6000Hz (dBHL)

	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	12.3	14.0	267	22.0	16.4	265	36.3	19.9	284	48.5	19.3	262	57.8	14.4	99	32.2	23.0	1177
Female	7.9	11.4	276	14.8	14.3	260	24.7	18.2	264	38.7	18.9	244	49.7	17.2	104	23.7	21.0	1148
Total	10.1	12.9	543	18.4	15.8	525	30.7	19.9	548	43.7	19.7	506	53.6	16.4	203	28.0	22.5	2325

Air conduction threshold of left ear at 8000Hz (dBHL)

	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	14.8	14.9	267	27.9	18.7	265	41.9	21.1	284	58.1	19.1	262	70.5	14.3	99	38.6	25.7	1177
Female	12.4	13.6	276	20.0	15.8	260	35.2	20.1	264	50.9	18.9	244	64.7	15.6	104	32.3	24.3	1148
Total	13.6	14.3	543	24.0	17.7	525	38.7	20.9	548	54.6	19.3	506	67.5	15.2	203	35.5	25.2	2325

Bone conduction threshold of left ear at 250Hz (dBHL)

	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	16.0	8.9	267	16.8	10.4	265	19.4	9.6	284	23.1	11.8	262	28.1	15.2	99	19.6	11.3	1177
Female	15.5	8.3	276	16.1	10.8	260	19.3	9.5	264	24.0	11.8	244	27.7	17.1	104	19.4	11.7	1148

Total 15.7 8.6 543 16.4 10.6 525 19.3 9.6 548 23.5 11.8 506 27.9 16.1 203 19.5 11.5 2325

Bone conduction threshold of left ear at 500Hz (dBHL)

	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	5.1	8.8	267	8.4	10.7	265	11.3	10.6	284	15.4	13.2	262	18.6	17.8	99	10.8	12.4	1177
Female	6.0	7.8	276	7.1	10.8	260	10.5	10.2	264	15.3	13.0	244	18.8	18.5	104	10.4	12.3	1148
Total	5.6	8.3	543	7.7	10.8	525	10.9	10.4	548	15.4	13.1	506	18.7	18.1	203	10.6	12.3	2325

Bone conduction threshold of left ear at 1000Hz (dBHL)

	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	10.8	10.4	267	13.8	11.3	265	19.0	12.4	284	25.4	14.8	262	30.6	16.4	99	18.4	14.2	1177
Female	10.5	10.2	276	14.8	11.9	260	19.0	12.8	264	25.2	14.2	244	28.4	16.4	104	18.2	14.1	1148
Total	10.7	10.3	543	14.3	11.6	525	19.0	12.6	548	25.3	14.5	506	29.5	16.4	203	18.3	14.2	2325

Bone conduction threshold of left ear at 2000Hz (dBHL)

	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	14.2	10.4	267	17.8	12.0	265	25.1	13.9	284	33.3	16.0	262	37.7	15.4	99	23.9	15.7	1177
Female	13.4	9.6	276	16.6	11.7	260	22.0	12.2	264	29.5	12.9	244	33.1	14.5	104	21.3	13.7	1148
Total	13.8	10.0	543	17.2	11.8	525	23.6	13.2	548	31.5	14.7	506	35.4	15.1	203	22.6	14.8	2325

2. Impedance Audiometry

Middle Ear Analyzer (Grason-Stadler model 33, version 2.)

[226Hz single frequency tympanogram] Tympanometric peak pressure (daPa)  
 [226Hz single frequency tympanogram] Static compliance (ml)  
 [Continuous frequency tympanogram] Middle ear resonance frequency (Hz)

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

	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	-2.8	27.5	263	-6.2	33.7	259	-10.0	41.1	277	-18.4	50.2	252	-17.9	48.4	94	-10.0	40.2	1145
Female	-1.5	20.6	272	-3.2	27.1	255	-7.0	37.2	253	-18.2	52.2	231	-16.4	45.6	92	-7.9	37.1	1103
Total	-2.1	24.2	535	-4.7	30.6	514	-8.6	39.3	530	-18.3	51.1	483	-17.1	46.9	186	-9.0	38.7	2248

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

	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	0.60	0.30	263	0.77	0.72	259	0.79	0.74	277	0.74	0.79	252	0.71	0.66	94	0.72	0.67	1145
Female	0.57	0.46	272	0.52	0.38	255	0.66	0.72	253	0.53	0.56	231	0.52	0.48	92	0.57	0.54	1103
Total	0.58	0.39	535	0.65	0.59	514	0.73	0.73	530	0.64	0.70	483	0.62	0.59	186	0.65	0.61	2248

Tympanometric peak pressure of the left ear in the single frequency tympanogram at 226Hz (daPa).

	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	1.1	19.6	261	-7.5	40.5	252	-6.0	34.0	272	-9.9	39.5	242	-14.2	42.9	88	-6.2	35.3	1115
Female	1.9	16.4	271	-0.1	21.2	255	-6.1	40.9	251	-12.7	42.3	224	-14.1	47.6	85	-4.7	33.7	1086
Total	1.5	18.0	532	-3.8	32.4	507	-6.0	37.4	523	-11.2	40.9	466	-14.2	45.2	173	-5.4	34.5	2201

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

	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	0.61	0.36	261	0.68	0.65	252	0.67	0.61	272	0.72	0.68	242	0.65	0.59	88	0.67	0.59	1115
Female	0.52	0.40	271	0.53	0.48	255	0.57	0.54	251	0.53	0.56	224	0.44	0.38	85	0.53	0.49	1086
Total	0.56	0.38	532	0.60	0.58	507	0.62	0.58	523	0.63	0.63	466	0.54	0.51	173	0.60	0.54	2201

Middle ear resonance frequency of the right ear (Hz)

	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	719.8	224.4	260	735.0	233.8	258	719.4	228.9	269	746.2	250.5	237	758.5	272.5	85	731.8	237.2	1109
Female	799.6	234.6	268	790.1	248.1	254	782.0	241.1	238	783.7	263.3	225	865.1	272.0	84	795.2	249.0	1069
Total	760.3	232.9	528	762.3	242.3	512	748.8	236.6	507	764.4	257.2	462	811.5	276.7	169	762.9	245.1	2178

Middle ear resonance frequency of the left ear (Hz)

	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	742.7	198.4	254	763.6	239.9	245	723.2	234.2	259	722.7	229.5	219	740.1	295.5	75	738.4	231.6	1052
Female	781.8	192.2	260	781.9	242.2	248	796.1	250.6	239	817.6	276.7	205	877.5	316.8	69	798.8	246.7	1021
Total	762.5	196.1	514	772.8	241.0	493	758.2	244.7	498	768.6	257.5	424	806.0	312.5	144	768.2	241.0	2073

3. Video recording of tympanic membrane

Status of one's ear canals and eardrums  
Otososcopic CCD camera MP-5(RF SYSTEM lab.)

Finding of right tympanic membrane

		40-49yr		50-59yr		60-69yr		70-79yr		80yr-		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
Normal	Male	244	91.4	213	80.4	218	77.0	198	75.6	61	61.6	934	79.4
	Female	252	91.3	223	85.8	200	76.0	176	71.8	59	56.2	910	79.2
	Total	496	91.3	436	83.0	418	76.6	374	73.8	120	58.8	1844	79.3
A-B gap susp	Male	1	0.4	14	5.3	24	8.5	28	10.7	13	13.1	80	6.8
	Female	0	0.0	11	4.2	22	8.4	23	9.4	8	7.6	64	5.6
	Total	1	0.2	25	4.8	46	8.4	51	10.1	21	10.3	144	6.2
Wax	Male	5	1.9	8	3.0	12	4.2	12	4.6	10	10.1	47	4.0
	Female	4	1.4	5	1.9	16	6.1	17	6.9	17	16.2	59	5.1
	Total	9	1.7	13	2.5	28	5.1	29	5.7	27	13.2	106	4.6
Not recorded	Male	17	6.4	30	11.3	29	10.2	24	9.2	15	15.2	115	9.8
	Female	20	7.2	21	8.1	25	9.5	29	11.8	21	20.0	116	10.1
	Total	37	6.8	51	9.7	54	9.9	53	10.5	36	17.6	231	9.9

Finding of left tympanic membrane

		40-49yr		50-59yr		60-69yr		70-79yr		80yr-		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
Normal	Male	246	92.1	217	81.9	219	77.4	211	80.5	65	65.7	958	81.5
	Female	261	94.6	231	88.8	218	82.9	200	81.6	70	66.7	980	85.3
	Total	507	93.4	448	85.3	437	80.0	411	81.1	135	66.2	1938	83.4
A-B gap susp	Male	5	1.9	18	6.8	30	10.6	26	9.9	17	17.2	96	8.2

	Female	2	0.7	9	3.5	27	10.3	20	8.2	13	12.4	71	6.2
	Total	7	1.3	27	5.1	57	10.4	46	9.1	30	14.7	167	7.2
Wax	Male	6	2.2	7	2.6	13	4.6	9	3.4	7	7.1	42	3.6
	Female	4	1.4	1	0.4	6	2.3	5	2.0	9	8.6	25	2.2
	Total	10	1.8	8	1.5	19	3.5	14	2.8	16	7.8	67	2.9
Not recorded	Male	9	3.4	23	8.7	20	7.1	16	6.1	10	10.1	78	6.6
	Female	9	3.3	19	7.3	12	4.6	19	7.8	13	12.4	72	6.3
	Total	18	3.3	42	8.0	32	5.9	35	6.9	23	11.3	150	6.5