1. Routine clinical evaluations

First of all, physical examinations including history taking, auscultation and blood pressure measurement are taken by a physician, and during the medical examination the doctor reconfirms every participants willingness to participate in examinations. Venous blood and urine samples are collected early in the morning after at least 12 hours' fasting.

Life-style, medical history and prescribed drugs are examined by questionnaires. These questionnaires are checked by a physician at the medical examination. All drugs used during the previous two years are to be documented by participants; the physician confirms them at interview and codes drugs used during the last two weeks.

In addition to the usual blood and urine analysis, renal and liver functions, serum protein and lipids, and complete blood count, lipid peroxide, sex hormones and geriatric disease markers are also examined. Serum, DNA and urine samples are stored in deep freezers for future examinations. As for DNA analysis, genotypes which are related geriatric diseases such as Alzheimer's disease, arteriosclerosis, osteoporosis, benign prostate hypertrophy and diabetes mellitus are examined with the agreement of the participants.

2. Physiological examinations

For physiological examinations, a head MRI is taken for all participants and stored in an image database. Intracranial tumors and vascular lesions are checked and brain volume is estimated via a computerized trace of the MRI. Pulmonary functions are examined with a spirometer. Blood oxygen saturation is also checked with an oxymeter. Blood pressure is measured by a physician as well as with an automatic blood pressure manometer. Electrocardiograms are assessed by computerized automatic diagnosis and Minnesota codes of the diagnosis are stored in a database. Cardiac functions and intima-media thickness of the carotid artery are assessed by ultrasonic tomography. Peripheral vascular function is assessed using a digital plethysmogram.

3. Sensory aging

Sensory functions are profoundly associated with QOL in the elderly. Visual and auditory disturbance causes various difficulties in the daily lives of the elderly. Sensory aging, including visual and auditory functions will be examined in detail. As for visual acuity, both distant vision (5 m) and near vision (33 cm) are assessed.

Kinetic visual acuity, stereoscopic vision, color perception, contrast sensitivity, visual field, and intraocular pressure are also examined. An anterior eye segment analysis system is used for the assessment of cataracts. Fundus photographs are taken with a Topcon fundus camera (TRC-NW5S). Autorefraction is done with the NIDEK-ARK700A. Refractive errors, in the spherical equivalent, are assessed.

Hearing acuity is assessed by pure-tone audiometry air conduction at 500Hz to 8000Hz in all participants and bone conduction in participants with hearing disturbance by air conduction. Middle ear function is also assessed by impedance audiometry. Peripheral skin sensory function is assessed using current perception thresholds at three different frequencies: 5, 250 and 2000 Hz. This is a non-invasive procedure to examine the function of three different sensory nerve fibers, that is A-beta fiber, A-delta, and C fiber. Cognitive sensory function at the parietal lobe of the brain is assessed by a skin discrimination test.

4. Body composition and anthropometry

Osteoporosis is one of the major geriatric diseases. Osteoporosis causes chronic lumbago and bone fracture that disturbs activity in daily life in the elderly. Bone mineral density is measured by dual X-ray absorptiometry (DXA). Four scans, including whole body, lumbar spine L2 to L4, right and left femoral bone neck, are taken. Moreover, bone density is also measured by high quality peripheral quantitative computed tomography (pQCT).

For anthropometry measurements, height, weight, abdominal sagittal diameter, circumferences of waist, hip, thigh and upper arm and other parameters are taken. Using ultrasonic tomography, intrabdominal and subcutaneous fat thickness and muscle thickness are evaluated. Intra- and extra-cellular fluid is measured via bioimpedance spectroscopy. Body fat is assessed by impedance measurement, air displacement plethysmography and DXA.

5. Exercise examinations

Grip strength, leg extension power, sit-up and static balance, reaction time, and trunk flexion are measured with a computerized automatic diagnosis system. Pitch, stride and speed of walking are assessed by the 10m walking test using four video cameras and two force plates. Physical activities are checked by detailed interview using job-specific questionnaire sheets. Seven-day averages of physical activity are also measured with an electric pedometer.

6. Nutritional survey

Nutritional intakes are assessed by three-day dietary records using scales. Scales are handed out to all participants to record the weight of all foods intake over three days. If it is impossible to weigh the food, size and approximate amount of food are noted. During lunchtime on the day of the examination, dieticians explain to each participant how to weigh foods and how to determine the size and approximate amount. Moreover, for more accurate assessment of food intake, disposable cameras are also handed out to all participants. Before and after each meal, participants take pictures of all food eaten to record what kind of foods and how much food were eaten, and how much food is not eaten. Using these dietary records and photographs, dieticians estimate actual food intake.

However, there are significant seasonal differences in daily food intake in Japan. Food intakes are also assessed by a food frequency and dietary habit questionnaire excluding seasonal differences. The average of amounts and frequencies of 166 representative foods eaten during the previous year are written. A dietician interviews the subjects to confirm the amounts and frequencies.

7. Psychological test

All participants are interviewed by psychology specialists. Cognition and intelligence are assessed using the Wechsler Adult Intelligence Scale-Revised Short Form (WAIS-R-SF) in all participants and the Mini-Mental State Examination (MMSE) in participants aged 60 years and over. Life events and stress coping are also assessed by interview. Basic ADL is checked via the Katz index.

Depressive symptoms, personality, subjective well-being, social environment including social support and social networks, stress coping and ADL are assessed using a questionnaire.

The examined variables number over 1,000, including various areas of gerontology and geriatrics and these variables will be checked repeatedly every two years in the 2,400 participants. The staffs of the NILS-LSA are full time researchers, researchers from hospitals and universities, research assistants such as administrators, clinical technicians, dieticians, psychologists, programmers and radiologists. The total number of staff is now 73.

9) Future of the NILS-LSA

We will continue the NILS-LSA to investigate the natural course of aging and the changes that lead to disease. The first wave examination will be completed by March 2000. The participants will be examined every 2 years. The cohort of the NILS-LSA will be a dynamic cohort, that is, new subjects will participate in the study instead of those who will not attend their next examination. Participants who move out of the area are to be followed up by telephone interview or postal questionnaire. Medical records of the participants who die during follow-up will be checked to find out the cause of death.

The NILS-LSA includes collaborating studies with other research facilities in Japan and other countries as shown in Fig. 5. Extensive tests and examinations should be repeated in longitudinal studies on aging. However, it is actually impossible to repeat many tests and examinations in multiple research facilities with the same protocols and methods. There are almost no comprehensive longitudinal studies on aging which have been followed up for a long period by multi-center collaboration in the U.S. or other countries.

However, cohort studies with common end points such as dementia and disturbance of ADL are also important for aging studies. A high number of subjects and cases during follow-up need to be obtained to get significant analysis results.

Comparative studies of the aging process accounting for regional and cultural differences between northern and southern areas, or between urban and rural areas, are also important. In these comparative studies, the number of common examinations and tests should be limited and measuring errors of each test and examination should be small. The study design should be a cross-sectional or short-term longitudinal study, considering the difficulties involved continuing and repeating the examinations in all facilities with same protocols. An international comparative study collaborating with the Baltimore Longitudinal Study of Aging (BLSA) at the National Institute on Aging (NIA) in the U.S. is also planned.

We are going to make the data of this study public through the Internet. We hope that the results from this large longitudinal study of aging can serve the development of health science on aging.

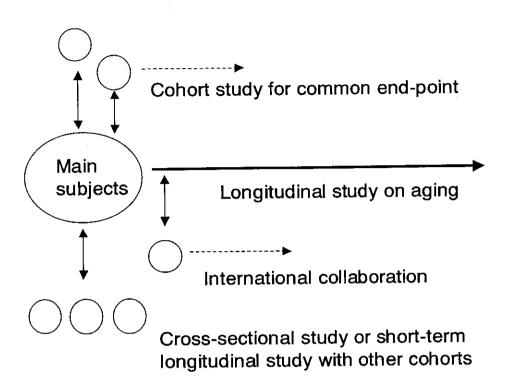


Fig. 5 Design of the longitudinal study by multi-center collaboration

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II. Background Examinations

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- 1) State of sleep
- 2) State of smoking
- 3) Health status
 - 1. Health status
 - 2. Regular health examination
 - 3. Family physician
 - 4. Present illness or past history
 - 5. History of operation
 - 6. History of hospital admission in last 2 years
- 4) Family history
- 5) Motor function
 - 1. About everyday life
 - 2. History of falls event in the past one year
 - 3. Fear of falling
 - 4. Limitation for daily activity due to fear of falls
 - 5. For fallen person (when, where, how, why and any fracture)
- 6) Visual acuity
- 7) Hearing ability
- 8) Weight control
- 9) Menstruation (for only women)
- 10) Urinary incontinence (for only women)
- 11) Urinary disturbance (for only men)
- 12) Job
- 13) Education
- 14) Ikigai or hobby
- 15) About family

1) State of sleep

Sleeping hours (hour)

	40	-49уг		50	-59yr		60	-69yr		70	-79yr		T	otal	
	Mean	SD	N	Mean	SD	N									
Male	6.9	0.9	291	6.9	0.9	282	7. 1	1. 1	283	7.4	1.2	281	7. 1	1.0	1137
Female	6.7	0.7	282	6.7	1.0	276	6.9	1.1	280	6.7	1.1	281	6.8	1.0	1119
Total	6.8	0.8	573	6.8	1.0	558	7.0	1.1	563	7.1	1.2	562	6.9	1.0	2256

Sleeping state

		40-	-49уг	50-	-59уј	60-	-69yr	70-	-79yr	To	tal
		N	%	N	%	N	%	N	%	N	%
Hard to sleep	Male	47	16.2	58	20.6	59	20.8	75	26.5	239	21.0
in ·	Female	46	16.3	81	29.0	119	41.8	131	46.5	377	33. 4
	Total	93	16.2	139	24.8	178	31.3	206	36. 5	616	27. 2
Awake in	Male	56	19.2	61	21.6	87	30.7	82	29. 0	286	25. 1
midnight -	Female	51	18.1	76	27. 2	118	41.4	143	50.7	388	34.4
•	Total	107	18.7	137	24. 4	205	36.1	225	39.8	674	29. 7
Big snoring	Male	114	39. 2	123	43.6	101	35. 7	68	24.0	406	35. €
•	Female	47	16.7	53	19.0	59	20. 7	40	14.2	199	17. 6
•	Total	161	28.1	176	31.4	160	28.2	108	19.1	605	26. 7
Offten see	Male	37	12.7	58	20. 6	60	21.2	78	27. 6	233	20.5
dream -	Female	56	19.9	48	17. 2	77	27.0	75	26.6	256	22.7
	Total	93	16.2	106	18.9	137	24. 1	153	27.1	489	21.6
Deep sleep	Male	124	42.6	140	49.6	145	51.2	134	47. 3	543	47.7
	Female	103	36.5	106	38.0	106	37.2	137	48.6	452	40.1
	Total	227	39.6	246	43.9	251	44. 2	271	48.0	995	43.9
Drowsy ub	Male	50	17.2	70	24.8	76	26.9	121	42.8	317	27.8
daytime -	Female	98	34.8	101	36. 2	86	30. 2	116	41.1	401	35.5
	Total	148	25.8	171	30.5	162	28.5	237	41.9	718	31.7
No adequate	Male	39	13.4	24	8. 5	16	5.7	31	11.0	110	9. 7
situation -	Female	41	14.5	31	11.1	18	6.3	16	5.7	106	9.4
	Total	80	14.0	55	9.8	34	6. 0	47	8.3	216	9.5
Total	Male	291	100.0	282	100.0	283	100.0	283	100.0	1139	100.0
-	Female	282	100.0	279	100.0	285	100.0	282	100.0	1128	100.0
-	Total	573	100.0	561	100.0	568	100.0	565	100.0	2267	100.0

State of a map

		40-4	19уг	50-5	19yr	60-6	59уг	70-7	79уг	Tot	al
		N	%	N	%	N	%	N	%	N	%
Not recorded	Male	0	0	0	0	0	0	2	0.7	2	0. 2
	Female	1	0.4	1	0.4	0	0	0	0	2	0.2
	Total	1	0.2	1	0.2	0	0	2	0.4	4	0.2
More than 6 times	Male	4	1.4	8	2.8	14	4. 9	25	8.8	51	4.5
a week	Female	1	0.4	5	1.8	12	4.2	19	6. 7	37	3. 3
	Total	5	0.9	13	2. 3	26	4. 6	44	7.8	88	3.9
3 to 5 times a	Male	11	3.8	23	8. 2	38	13. 4	53	18.7	125	11.0
week	Female	23	8. 2	32	11.5	38	13.3	53	18.8	146	12.9
	Total	34	5.9	55	9.8	76	13.4	106	18.8	271	12.0
1 or 2 times a	Male	63	21.6	74	26. 2	85	30.0	70	24. 7	292	25. 6
week	Female	126	44.7	106	38.0	85	29.8	83	29.4	400	35. 5
	Total	189	33.0	180	32.1	170	29.9	153	27. 1	692	30.5
None	Male	213	73. 2	177	62.8	146	51.6	133	4 7. 0	669	58.7
	Female	131	46.5	135	48.4	150	52.6	127	45.0	543	48. 1
	Total	344	60.0	312	55.6	296	52.1	260	46.0	1212	53.5

2) State of smoking

State of smoking Smoking habit

		40-	49yr	50-	59уг	60-	69yr	70-	79yr	To	tal
		N	%	N	%	N	%	N	%	N	%
Not recorded	Male	0	0	0	0	0	0	0	0	0	0
	Female	0	0	1	0.4	l	0.4	0	0	2	0.2
	Total	0	0	1	0.2	1	0.2	0	0	2	0.1
Non-smoker	Male	56	19. 2	71	25.2	69	24. 4	51	18.0	247	21.7
	Female	227	80.5	253	90.7	268	94.0	263	93.3	1011	89.6
	Total	283	49.4	324	57. 8	337	59.3	314	55.6	1258	55. 5
Ex-smoker	Male	91	31.3	107	37.9	114	40.3	147	51.9	459	40.3
	Female	16	5.7	2	0.7	4	1.4	11	3.9	33	2. 9
	Total	107	18. 7	109	19.4	118	20.8	158	28.0	492	21.7
Current-smoker	Male	144	49.5	104	36.9	100	35. 3	85	30.0	433	38.0
	Female	39	13.8	23	8.2	12	4. 2	8	2.8	82	7. 3
	Total	183	31.9	127	22.6	112	19.7	93	16.5	515	22. 7

Age of starting to smoke in ex-smoker(years old)

	40	-49уг		50	-59yr		60	-69yr		70	-79yr		T	otal	
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	20. 1	3. 1	89	22. 1	7.8	106	21.6	6.6	113	24.4	10.2	145	22. 3	7. 9	453
Female	22.4	6.7	16	34.0	19.8	2	33.0	19.6	4	34.3	15.0	11	28.3	13.2	33
Total	20.4	3.9	105	22.4	8. 1	108	22.0	7.5	117	25. 1	10.8	156	22. 7	8. 5	486

Age of stopping to smoke in ex-smoker(years old)

	40	-49yr		50	-59yr		60	-69уг		7€	-79yr		Т	otal	
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	32.2	7.4	89	40.5	10.0	104	48.1	12. 2	109	56.2	12.6	141	45. 7	14. 2	443
Female	29.6	8.8	16	37. 5	20.5	2	45.8	19.1	4	58.4	11.0	10	41.1	17.0	32
Total	31.8	7. 7	105	40.4	10.1	106	48.0	12.4	113	56.3	12.5	151	45.4	14.4	475

Previous amount of consumption in ex-smoker (pieces/day)

	40	-49yr		50	-59yr		60	-69yr		70	-79yr		Ţ	otal	
	Mean	SD	Ŋ	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	17.3	9.6	90	23.0	12.6	105	22.4	13.0	112	19.7	11.2	143	20. 7	11.9	450
Female	9.3	5.9	16	3. 0	2.8	2	12.0	7. 3	4	13.6	7. 7	11	10.7	6. 9	33
Total	16.1	9.5	106	22. 7	12.8	107	22.1	13.0	116	19.2	11.0	154	20.0	11.9	483

Age of starting to smoke in current-smoker(years old)

	40	40-49yr		50	-59yr		60	-69уг		70	-79yr		T	otal	
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	19.9	3.6	143	20. 5	5.4	103	23.1	9. 4	100	23. 2	9.5	84	21.4	7. 2	430
Female	25. 7	7.5	39	28. 7	9. 1	23	31.7	8. 4	12	36.8	9.4	8	28. 5	8. 8	82
Total	21.1	5. 2	182	22.0	6.9	126	24.0	9.6	112	24.4	10.2	92	22.6	7.9	512

Amount of consumption in current-smoker (pieces/day)

	40	-49yr		50	-59yr		60	-69yr		70	-79yr	·	1	otal	
	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N
Male	22.9	10.9	143	23. 9	8.8	104	19.8	6.6	100	16.6	8.3	85	21.2	9.4	432
Female	12.9	8.3	39	14.7	10.8	23	15.1	7.9	12	9.8	5.3	8	13.4	8.8	82
Total	20.8	11.2	182	22. 2	9.8	127	19.3	6.9	112	16.0	8. 3	93	19.9	9.7	514

Reason of quit smoking

		40-	49yr	50-	59yr	60-	69уг	70-	79уг	To	tal
		N	%	N	%	N	%	N	%	N	%
Not want to	Male	12	13.2	9	8. 4	7	6.1	12	8. 2	40	8. 7
smoke as previously	Female	5	31.3	ı	50.0	. 1	25.0	1	9. 1	8	24. 2
	Total	17	15.9	10	9. 2	8	6.8	13	8. 2	48	9.8
Disease	Male	12	13.2	28	26.2	34	29.8	64	43.5	138	30. 1
	Female	0	0	0	0	1	25.0	6	54.5	7	21.2
	Total	12	11.2	28	25. 7	35	29.7	70	44.3	145	29.
For health	Male	57	62.6	73	68. 2	69	60.5	78	53. 1	277	60.
	Female	7	43.8	1	50.0	3	75.0	5	45. 5	16	48.
	Total	64	59.8	74	67. 9	72	61.0	83	52.5	293	59.
For family	Male	31	34. 1	42	39.3	29	25.4	31	21.1	133	29.
	Female	1	6.3	1	50.0	i	25.0	3	27. 3	6	18.
	Total	32	29.9	43	39.4	30	25.4	34	21.5	139	28.
Economical	Male	2	2.2	1	0.9	2	1.8	2	1.4	7	1.
problem	Female	1	6.3	0	0	0	0	0	0	1	3.
	Total	3	2.8	ı	0.9	2	1.7	2	1.3	8	1.
Others	Male	12	13.2	21	19.6	20	17.5	26	17. 7	79	17.
	Female	8	50.0	0	0	0	0	4	36.4	12	36.
	Total	20	18.7	21	19.3	20	16.9	30	19.0	91	18.
Total	Male	91	100.0	107	100.0	114	100.0	147	100.0	459	100.
	Female	16	100.0	2	100.0	4	100.0	11	100.0	33	100.
	Total	107	100.0	109	100.0	118	100.0	158	100.0	492	100.

Inhale of tobacco fumes

		40-	49уг	50-	59уг	60-	69yr	70-	79yr	To	tal
		N	%	N	%	N	%	N	%	N	%
Puff	Male	9	6.3	8	7.7	14	14.0	22	25.9	53	12. 2
	Female	4	10.3	l	4.3	2	16.7	3	37.5	10	12.2
	Total	13	7.1	9	7.1	16	14.3	25	26.9	63	12.2
Inhale	Male	102	70.8	66	63.5	45	45.0	26	30.6	239	55.2
	Female	19	48. 7	10	43.5	4	33. 3	2	25.0	35	42.7
	Total	121	66.1	76	59.8	49	43. 8	28	30.1	274	53. 2
Both	Male	33	22. 9	30	28. 8	41	41.0	37	43.5	141	32.6
	Female	16	41.0	12	52.2	6	50.0	3	37.5	37	45.1
	Total	49	26.8	42	33. 1	47	42.0	40	43.0	178	34.6

Smoking of cigarette with filter

·		40-	49уг	50-	50-59yr		60-69yr		79yr	To	tal
		N	%	N	%	N	%	N	%	N	%
Always	Male	141	97.9	103	99.0	99	99.0	83	97.6	426	98.4
	Female	38	97. 4	23	100.0	11	91.7	8	100.0	80	97.6
	Total	179	97.8	126	99.2	110	98. 2	91	97.8	506	98. 3
Rarely	Male	1	0.7	1	1.0	0	0	2	2.4	4	0.9
	Female	0	0	0	0	0	0	0	0	0	,0
	Total	1	0.5	1	0.8	0	0	2	2.2	4	0.8
Not smoke	Male	2	1.4	0	0	1	1.0	0	0	3	0.7
	Female	I	2.6	0	0	1	8. 3	0	0	2	2.4
	Total	3	1.6	0	0	2	1.8	0	0	5	1.0

Inhale of tobacco fumes smoked by others in your home

		40-	19уг	50-	9уг	60-	59yr	70-7	79yr	Tot	tal
		N	%	N	%	N	%	N	%	N	%
Not recorded	Male	1	0.3	2	0.7	2	0.7	1	0.4	6	0.5
	Female	1	0.4	0	0	. 0	0	0	0	1	0.1
	Total	2	0.3	2	0.4	2	0.4	1	0.2	7	0.3
None	Male	258	88. 7	220	78.0	223	78.8	220	77.7	921	80.9
	Female	150	53. 2	144	51.6	170	59.6	187	66.3	651	57.7
	Total	408	71.2	364	64.9	393	69.2	407	72.0	1572	69. 3
Sometimes	Male	28	9.6	45	16.0	52	18.4	55	19.4	180	15.8
	Female	42	14.9	65	23.3	68	23.9	57	20.2	232	20.6
	Total	70	12. 2	110	19.6	120	21.1	112	19.8	412	18. 2
Almost every day	Male	4	1.4	15	5.3	6	2.1	7	2. 5	32	2. 8
	Female	89	31.6	70	25.1	47	16.5	38	13.5	244	21.6
	Total	93	16.2	85	15.2	53	9. 3	45	8.0	276	12.2

The hours of inhaling of tobacco fumes smoked by others in your home (hour)

	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	0.5	4	2. 3	1.2	12	1.8	0.8	5	2.9	2.8	7	2. 3	1.6	28
Female	2.9	1.8	79	2.8	2.8	55	4. l	5.4	37	3. 5	4.0	31	3. 2	3. 4	202
Total	2.9	1.8	83	2. 7	2.6	67	3.9	5.1	42	3. 4	3.8	38	3. 1	3. 2	230

Inhaling of tobacco fumes smoked by others in your home in your childhood

		40-	49уг	50-	59yr	60-	69yr	70-79yr		To	tal
		N	%	N	%	N	%	N	%	N	%
Not recorded	Male	0	0	1	0.4	2	0.7	2	0.7	5	0.4
	Female	0	0	0	0	0	0	0	0	0	0
	Total	0	0	1	0.2	2	0.4	2	0.4	5	0. 2
None	Male	75	25. 8	90	31.9	89	31.4	110	38.9	364	32.0
	Female	74	26. 2	95	34. 1	113	39. 6	114	40.4	396	35. 1
	Total	149	26.0	185	33.0	202	35.6	224	39.6	760	33. 5
Sometimes	Male	111	38. 1	99	35.1	126	44.5	126	44.5	462	40.6
	Female	86	30.5	78	28.0	107	37.5	115	40.8	386	34. 2
	Total	197	34.4	177	31.6	233	41.0	241	42.7	848	37. 4
Almost every day	Male	105	36. 1	92	32.6	66	23.3	45	15.9	308	27. 0
	Female	122	43.3	106	38.0	65	22.8	53	18.8	346	30. 7
	Total	227	39. 6	198	35.3	131	23. 1	98	17.3	654	28.8

The hours of inhaling of tobacco fumes smoked by others in your home in your childhood (hour)

	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	1.2	94	2.6	2. 2	80	2.5	1.5	55	3.0	2.3	38	2.4	1.8	267
Female	2.6	1.8	103	2.4	2. 1	73	3.9	3. 9	44	3.3	2.9	38	2. 9	2.6	258
Total	2.3	1.5	197	2.5	2.2	153	3.1	2.9	99	3. 2	2.6	76	2.6	2. 2	525

Inhaling tobacco fumes smoked by others in outside of your home

		40-	19yr	50-5	9уг	60-	69yr	70-79yr		Total	
		N	%	N	%	N	%	N	%	N	%
Not recorded	Male	0	0	l	0.4	3	1.1	1	0.4	5	0.4
	Female	0	0	0	0	2	0.7	0	0	2	0. 2
	Total	0	0	1	0.2	5	0.9	I	0.2	7	0. 3
None	Male	29	10.0	28	9. 9	68	24.0	86	30.4	211	18.5
	Female	108	38. 3	95	34.1	116	40. 7	166	58.9	485	43.0
	Total	137	23. 9	123	21.9	184	32.4	252	44.6	696	30. 7
Sometimes	Male	122	41.9	129	45.7	171	60.4	178	62.9	600	52.7
	Female .	114	40.4	151	54.1	153	53.7	108	38.3	526	46.6
	Total	236	41.2	280	49.9	324	57.0	286	50.6	1126	49. 7
Almost every day	Male	140	48. 1	124	44.0	41	14.5	18	6.4	323	28. 4
	Female	60	21.3	33	11.8	14	4.9	8	2.8	115	10.2
	Total	200	34. 9	157	28.0	55	9.7	26	4.6	438	19.3

The hours of inhaling tobacco fumes smoked by others outside of your home (hour)

	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	3.5	3.0	128	3.6	3.0	104	2.7	1.9	38	4.2	3.4	12	3.5	2.9	282	
Female	4.1	3.0	55	4.6	4. 5	27	3.8	3.0	12	4.4	4.0	5	4. 2	3.5	99	
Total	3. 7	3.0	183	3.8	3.4	131	3.0	2. 3	50	4.2	3.4	17	3. 6	3. 1	381	