This is a summary based on the report of the National Health and Nutrition Survey, 2019 published by the Ministry of Health, Labor and Welfare.

For more information, please visit the following site (in Japanese): https://www.mhlw.go.jp/bunya/kenkou/kenkou_eiyou_chousa.html.

The National Health and Nutrition Survey (NHNS) Japan, 2019

Summary

Contents

Summary of the Survey

1. Purpose of the National Health and Nutrition Survey (NHNS)

This survey aimed to clarify the physical conditions, nutrient intake, and lifestyle of citizens based on the Health Promotion Act (Law No. 103, enacted in 2002) and to obtain basic data for the comprehensive promotion of their health.

2. Participants

In the Comprehensive Survey of Living Conditions in 2019 (approximately 11,000 areas with 300,000 households and 720,000 family members), the participants included households and family members (aged 1 year and over as of November 1, 2019) in 300 areas, who were stratified and randomly extracted from the general census areas. Of the selected census areas, four were excluded due to the influence of typhoon No. 19 in 2019.

The following households and family members were excluded from this survey:
<Households>
-Households of which the heads were not Japanese.
-Households that were provided with delivered/prepared meals three times a day.
-One-person households in a live-in situation or residing in dormitories provided with meals.
<Family Members>
-Infants aged 11 months or younger.
-Persons who were unable to eat regular meals, including home care patients taking only fluids or drugs due to illness.
-Those who did not have meals together with the rest of the family.
-Those who were absent from the household, including migrant workers and those who were (a) working away from home, (b) away on business for a long period (3 months or more), (c) studying away from home, (d) admitted to a social welfare facility (including nursing care facilities), (e) admitted to a hospital for a long period, (f) put out to nurse, (g) imprisoned, and (h) not living together.

3. Purpose and period of survey

3.1 Survey items and target age

This survey consisted of a physical examination, a dietary survey, and a lifestyle habits questionnaire survey. The age indicated in the survey was based on the participants' age as of November 1, 2019. The survey items and target age were as follows.

3.1.1 Physical examination

A) Height (aged 1 year and over)
B) Bodyweight (aged 1 year and over)
C) Abdominal circumference (aged 20 years and over)
D) Blood pressure: systolic and diastolic blood pressure (aged 20 years and over) measured twice a day.
E) Blood tests (aged 20 years and over)
F) Medical interview (aged 20 years and over) regarding the following variables:
    Drugs used
        Antihypertensive
        Anti-arrhythmic
        Cholesterol lowering
        Antihyperlipidemic (triglyceride)
        Iron supplements for treatment of iron deficiency anemia
    Diagnosis and treatment
        Diagnosis of diabetes
        Treatment for diabetes
        Status of treatment: insulin or other oral drugs for treatment of diabetes mellitus
        Status of treatment: regular blood glucose tests or lifestyle improvement education in hospital
    Regular exercise habit
        Presence of restrictions for exercise due to medical reasons

Frequency of exercise per week
Average exercise duration
Duration of regular exercise habit

3.1.2 Dietary survey (aged 1 year and over)

A) Household status: Name, birth date, sex, pregnant (gestational age) or lactating women, and occupation
B) Meal classification for each family member on the day of the survey (meals cooked at home, home meal replacement, buying cooked food, using food delivery services, eating out, meals provided at school/workplace, etc.)
C) Food intake: Dish name, food name, volume, waste volume and proportional distribution by each household member
D) Daily physical activity (the number of steps per a day, aged 20 years and over)

3.1.3 Lifestyle habit questionnaire (aged 20 years and over)

The participants were provided with a self-administered questionnaire, in which they answered questions about eating habits, physical activity, exercise, resting (sleep), alcohol intake, smoking, and dental health. Further, the social environmental factors were examined as an important item in 2019.
An online survey has been introduced since 2019. Participants could opt to answer the lifestyle habit questionnaire using their PC or smartphone, at home or workplace.

3.2 Survey period

The survey was performed in November 2019

A) Physical examination: Date on which the highest participation could be achieved, considering the circumstances in the national census areas (several dates were established)
B) Dietary survey: One day, excluding Sundays and holidays
C) Lifestyle habits questionnaire: During the survey period (November 2019)

4. Organizations involved in the survey

The survey system was as follows:

Ministry of Health, Labour and Welfare
↓
(Prefecture / special districts of cities with public health centers installed)
↓
Public health centers
↓
National health and nutrition investigators
↓
Survey participants

5. Data analyses

The comments related to the evaluation of results, such as “significantly higher (or lower, increased, or decreased)” and “with no significant change”, were made based on the statistical tests (level of statistical significance defined as $p < 0.05$). The details are presented below.

5.1 Analysis regarding annual changes

The trend of the past 10 years was calculated using age-adjusted values based on the 2010 Census population, using the three age categories (65–74 years, 75–84 years, and 85 years and over[1]) for the proportion of malnutrition (BMI ≤ 20 kg/m^2) in individuals aged 65 years and over and the six age categories (20–29 years, 30–39 years, 40–49 years, 50–59

years, 60–69 years, and 70–79 years[1]) for other outcomes. Then, the Joinpoint Regression Program was performed using the mean/proportion and standard error for each year[2]. In these analyses, adjusted national values were used for the 2012 and 2016 surveys[3].

5.2 Analysis between annual results

A trend test for annual results was conducted using a multivariate regression analysis with adjustment for age (six categories: 20–29 years, 30–39 years, 40–49 years, 50–59 years, 60–69 years, and 70–79 years).

[1] Directed estimation method

[2] National Cancer Institute (NCI): Joinpoint Trend Analysis Software (https://surveillance.cancer.gov/joinpoint/)

[3] Results of NHNS Japan, 2012 (https://www.mhlw.go.jp/bunya/kenkou/eiyou/dl/h24-houkoku.pdf)
Results of NHNS Japan, 2016 (https://www.mhlw.go.jp/bunya/kenkou/eiyou/dl/h26-houkoku.pdf)

6. Collection of samples and results

The results were analyzed by the National Institutes of Biomedical Innovation, Health and Nutrition. Of the 4,465 target households for the survey, 2,836 households that responded to at least one question in the survey questionnaires were included in the analysis.

Number of samples collected according to age

Men and Women	Physical Examination		Blood Test		Dietary Survey		Steps per day		Lifestyle questionnaire	
	n	%	n	%	n	%	n	%	n	%
Total	5,074	100.0	2,431	100.0	5,865	100.0	4,591	100.0	5,709	100.0
1-6 years	196	3.9	-	-	235	4.0	-	-	-	-
7-14 years	368	7.3	-	-	454	7.7	-	-	-	-
15-19 years	176	3.5	-	-	249	4.2	-	-	-	-
20-29 years	275	5.4	101	4.2	365	6.2	328	7.1	447	7.8
30-39 years	403	7.9	179	7.4	460	7.8	427	9.3	552	9.7
40-49 years	662	13.0	327	13.5	742	12.7	721	15.7	898	15.7
50-59 years	669	13.2	350	14.4	775	13.2	749	16.3	895	15.7
60-69 years	954	18.8	579	23.8	1,046	17.8	993	21.6	1,170	20.5
70 years and over	1,371	27.0	895	36.8	1,539	26.2	1,373	29.9	1,747	30.6
(reprint) 65-74 years	1,111	21.9	724	29.8	1,217	20.8	1,154	25.1	1,348	23.6
(reprint) 75 years and over	830	16.4	535	22.0	952	16.2	813	17.7	1,080	18.9
(reprint) 70-79 years	963	19.0	644	26.5	1,042	17.8	971	21.2	1,185	20.8
(reprint) 80 years and over	408	8.0	251	10.3	497	8.5	402	8.8	562	9.8

Men	Physical Examination		Blood Test		Dietary Survey		Steps per day		Lifestyle questionnaire	
	n	%	n	%	n	%	n	%	n	%
Total	2,355	100.0	1,020	100.0	2,782	100.0	2,135	100.0	2,670	100.0
1-6 years	85	3.6	-	-	105	3.8	-	-	-	-
7-14 years	197	8.4	-	-	250	9.0	-	-	-	-
15-19 years	94	4.0	-	-	130	4.7	-	-	-	-
20-29 years	135	5.7	55	5.4	183	6.6	156	7.3	221	8.3
30-39 years	178	7.6	64	6.3	210	7.5	190	8.9	254	9.5
40-49 years	303	12.9	116	11.4	351	12.6	337	15.8	428	16.0
50-59 years	291	12.4	129	12.6	350	12.6	342	16.0	414	15.5
60-69 years	450	19.1	249	24.4	502	18.0	476	22.3	564	21.1
70 years and over	622	26.4	407	39.9	701	25.2	634	29.7	789	29.6
(reprint) 65-74 years	525	22.3	329	32.3	590	21.2	562	26.3	657	24.6
(reprint) 75 years and over	375	15.9	243	23.8	421	15.1	367	17.2	475	17.8
(reprint) 70-79 years	452	19.2	299	29.3	502	18.0	466	21.8	560	21.0
(reprint) 80 years and over	170	7.2	108	10.6	199	7.2	168	7.9	229	8.6

Women	Physical Examination		Blood Test		Dietary Survey		Steps per day		Lifestyle questionnaire	
	n	%	n	%	n	%	n	%	n	%
Total	2,719	100.0	1,411	100.0	3,083	100.0	2,456	100.0	3,039	100.0
1-6 years	111	4.1	-	-	130	4.2	-	-	-	-
7-14 years	171	6.3	-	-	204	6.6	-	-	-	-
15-19 years	82	3.0	-	-	119	3.9	-	-	-	-
20-29 years	140	5.1	46	3.3	182	5.9	172	7.0	226	7.4
30-39 years	225	8.3	115	8.2	250	8.1	237	9.6	298	9.8
40-49 years	359	13.2	211	15.0	391	12.7	384	15.6	470	15.5
50-59 years	378	13.9	221	15.7	425	13.8	407	16.6	481	15.8
60-69 years	504	18.5	330	23.4	544	17.6	517	21.1	606	19.9
70 years and over	749	27.5	488	34.6	838	27.2	739	30.1	958	31.5
(reprint) 65-74 years	586	21.6	395	28.0	627	20.3	592	24.1	691	22.7
(reprint) 75 years and over	455	16.7	292	20.7	531	17.2	446	18.2	605	19.9
(reprint) 70-79 years	511	18.8	345	24.5	540	17.5	505	20.6	625	20.6
(reprint) 80 years and over	238	8.8	143	10.1	298	9.7	234	9.5	333	11.0

7. Others

・The number of analyzed participants is shown in parentheses in the figures and tables.

・Because the values listed in this report were rounded off, the total breakdown may not match the total number.

Summary of the Results

Part I. Social environmental factors and lifestyle

1. Intention to improve eating habits

For the intention to improve eating habits, the proportion of those who responded “I don’t intend to improve my eating habits though I’m interested” was highest among both men (24.6%) and women (25.0%).

With regard to BMI categories, the proportion of those who responded “I don’t intend to improve my eating habits though I’m interested” was highest among obese and normal-weight participants, while the proportion of those who responded “I don’t have to improve my eating habits because my eating habits have no problems” was highest among underweight participants.

With regard to salt intake categories, the proportion of those who responded “I don’t intend to improve my eating habits though I’m interested” was highest, irrespective of salt intake.

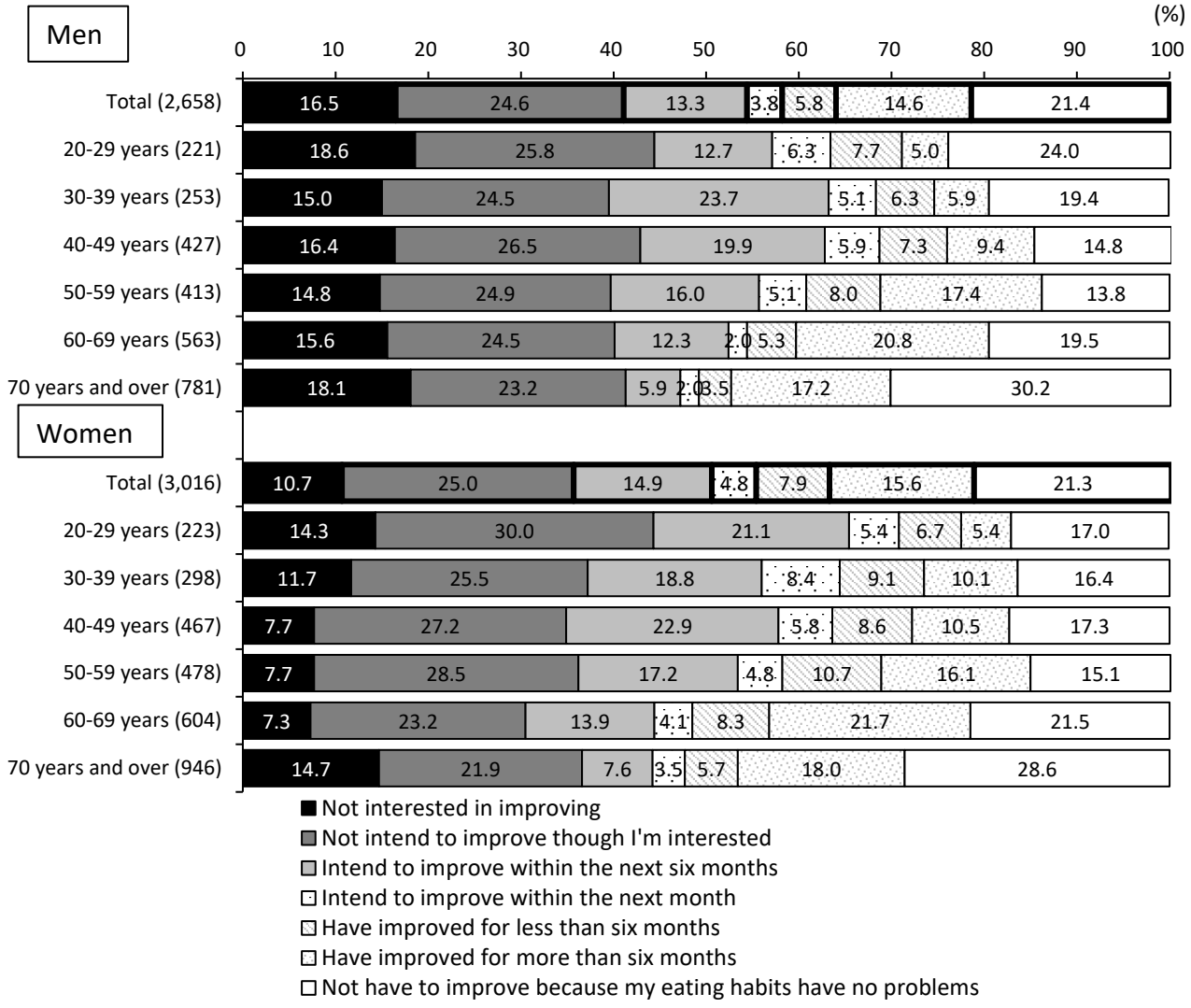


Figure 1. Intention to improve eating habits (aged 20 years and over, based on age and sex)

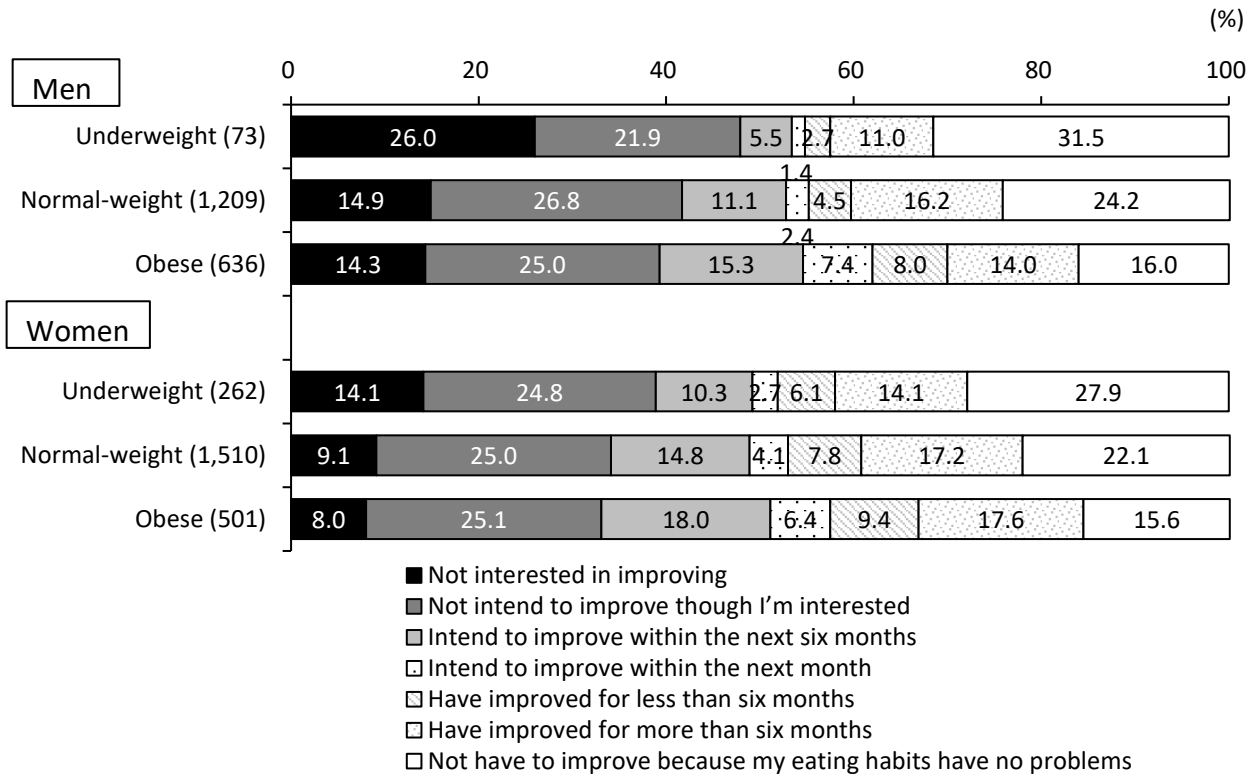


Figure 2. Intention to improve eating habits according to BMI (aged 20 years and over, based on sex)

* Body mass index (BMI [kg/m^2]: body weight [kg]/(height [m])^2) was used to evaluate weight status: <18.5 for underweight, 18.5–<25 for normal-weight, and ≥25 for obese.

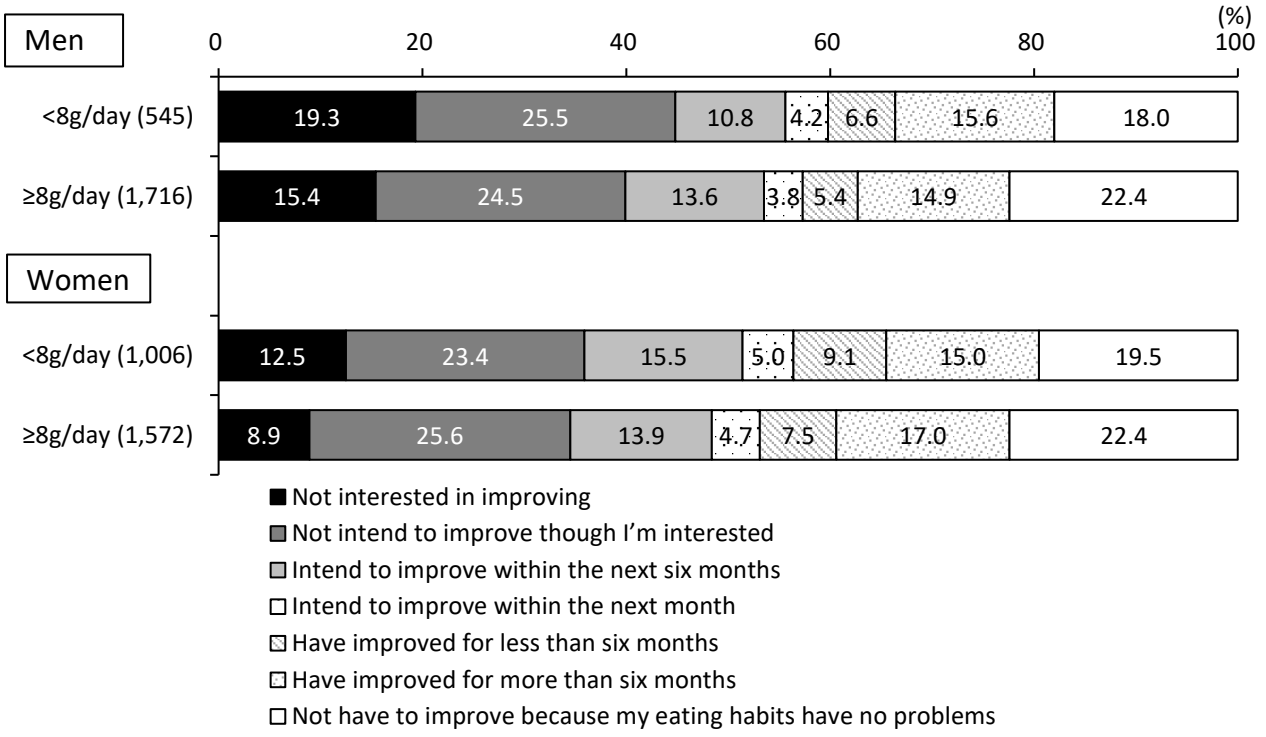


Figure 3. Intention to improve eating habits according to salt intake (aged 20 years and over, based on sex)

* "Decrease in mean salt intake to 8 g/day" is one of the targets of Health Japan 21 (the second term).

2. Barriers to healthy eating habits

For the barriers to healthy eating habits, the proportion of those who responded “none” was highest (35.3%), followed by “busy with work/housework/child care” (27.5%) and “too troublesome” (25.3%).

With regard to the stage of improvement of eating habits, the proportion of those who responded “none” was highest among those who responded “I’m not interested in improving my eating habits”, “I don’t intend to improve my eating habits though I’m interested”, and “I have improved my eating habits for more than/less than six months.” Meanwhile, the proportion of those who responded “busy with work/housework/child care” was highest among those who responded “I intend to improve my eating habits within the next (six) month(s).”

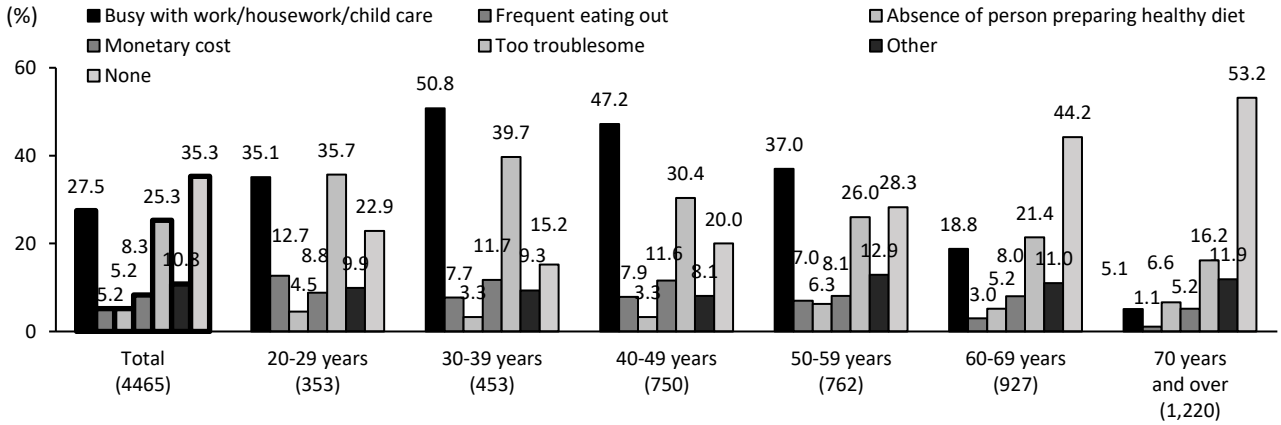


Figure 4. Intention to improve eating habits (aged 20 years and over, based on age)

* The total breakdown is not 100% because multiple answers are allowed.

Table 1. Barriers to healthy eating habits (aged 20 years and over, based on age and sex)

		Total		20–29 years		30–39 years		40–49 years		50–59 years		60–69 years		70 years and over	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%
Men	Total	2,090	-	168	-	204	-	364	-	356	-	453	-	545	-
	Busy with work/ housework/child care	524	25.1	52	31.0	99	48.5	165	45.3	117	32.9	73	16.1	18	3.3
	Frequent eating out	165	7.9	24	14.3	24	11.8	43	11.8	42	11.8	23	5.1	9	1.7
	Absence of person preparing healthy diet	142	6.8	10	6.0	11	5.4	16	4.4	28	7.9	32	7.1	45	8.3
	Monetary cost	156	7.5	15	8.9	17	8.3	33	9.1	25	7.0	40	8.8	26	4.8
	Too troublesome	491	23.5	61	36.3	66	32.4	105	28.8	83	23.3	92	20.3	84	15.4
	Other	196	9.4	17	10.1	16	7.8	29	8.0	42	11.8	39	8.6	53	9.7
	None	753	36.0	40	23.8	40	19.6	73	20.1	106	29.8	197	43.5	297	54.5
	Unknown	105	5.0	9	5.4	5	2.5	15	4.1	13	3.7	21	4.6	42	7.7
Women	Total	2,375	-	185	-	249	-	386	-	406	-	474	-	675	-
	Busy with work/ housework/child care	702	29.6	72	38.9	131	52.6	189	49.0	165	40.6	101	21.3	44	6.5
	Frequent eating out	69	2.9	21	11.4	11	4.4	16	4.1	11	2.7	5	1.1	5	0.7
	Absence of person preparing healthy diet	91	3.8	6	3.2	4	1.6	9	2.3	20	4.9	16	3.4	36	5.3
	Monetary cost	215	9.1	16	8.6	36	14.5	54	14.0	37	9.1	34	7.2	38	5.6
	Too troublesome	637	26.8	65	35.1	114	45.8	123	31.9	115	28.3	106	22.4	114	16.9
	Other	287	12.1	18	9.7	26	10.4	32	8.3	56	13.8	63	13.3	92	13.6
	None	822	34.6	41	22.2	29	11.6	77	19.9	110	27.1	213	44.9	352	52.1
	Unknown	100	4.2	10	5.4	9	3.6	12	3.1	11	2.7	14	3.0	44	6.5

* The total breakdown is not 100% because multiple answers are allowed.
* The shaded cells show the most selected point for each age category.

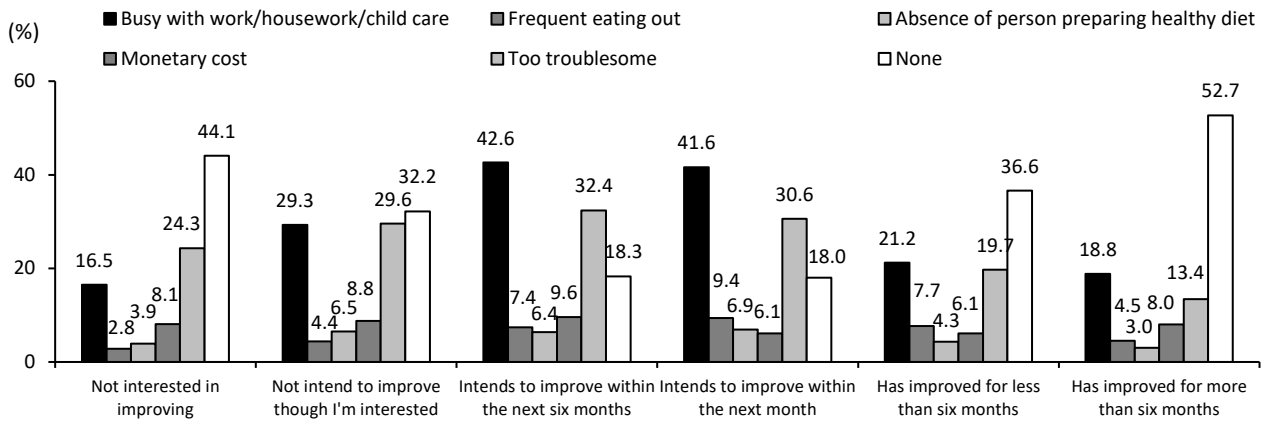


Figure 5. Barriers to healthy eating habits according to the stage of improvement of eating habits (aged 20 years and over, based on age)

* The total breakdown is not 100% because multiple answers are allowed.

Table 2. Barriers to healthy eating habits according to the stage of improvement of eating habits (aged 20 years and over, based on sex)

		Total		Not interested in improving		Not intend to improve though I'm interested		Intend to improve within the next six months		Intend to improve within the next month		Have improved for less than six months		Have improved for more than six months	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%
Men	Total	2,090	-	439	-	654	-	354	-	100	-	154	-	389	-
	Busy with work/ housework/child care	524	25.1	73	16.6	164	25.1	144	40.7	41	41.0	39	25.3	63	16.2
	Frequent eating out	165	7.9	17	3.9	46	7.0	39	11.0	14	14.0	19	12.3	30	7.7
	Absence of person preparing healthy diet	142	6.8	21	4.8	64	9.8	25	7.1	10	10.0	8	5.2	14	3.6
	Monetary cost	156	7.5	37	8.4	46	7.0	30	8.5	7	7.0	8	5.2	28	7.2
	Too troublesome	491	23.5	109	24.8	186	28.4	99	28.0	28	28.0	24	15.6	45	11.6
	Other	196	9.4	27	6.2	48	7.3	49	13.8	10	10.0	18	11.7	44	11.3
	None	753	36.0	188	42.8	217	33.2	66	18.6	18	18.0	58	37.7	206	53.0
	Unknown	105	5.0	39	8.9	33	5.0	9	2.5	3	3.0	6	3.9	15	3.9
Women	Total	2,375	-	323	-	753	-	448	-	145	-	237	-	469	-
	Busy with work/ housework/child care	702	29.6	53	16.4	248	32.9	198	44.2	61	42.1	44	18.6	98	20.9
	Frequent eating out	69	2.9	4	1.2	16	2.1	20	4.5	9	6.2	11	4.6	9	1.9
	No one preparing healthy diet	91	3.8	9	2.8	28	3.7	26	5.8	7	4.8	9	3.8	12	2.6
	Monetary cost	215	9.1	25	7.7	78	10.4	47	10.5	8	5.5	16	6.8	41	8.7
	Too troublesome	637	26.8	76	23.5	230	30.5	161	35.9	47	32.4	53	22.4	70	14.9
	Other	287	12.1	23	7.1	70	9.3	65	14.5	25	17.2	49	20.7	55	11.7
	None	822	34.6	148	45.8	236	31.3	81	18.1	26	17.9	85	35.9	246	52.5
	Unknown	100	4.2	30	9.3	36	4.8	12	2.7	5	3.4	9	3.8	8	1.7

* Participants included were those who chose any answer except for "I don't have to improve my eating habits because my eating habits have no problems" and who answered the question for barriers to healthy eating habits.

* The total breakdown is not 100% because multiple answers are allowed.

* The shaded cells show the most selected point for each stage of improvement of eating habits.

3. Sources of information for daily diet

For sources of information for daily diet, the proportion of those who responded “television” was highest (52.3%), the highest values observed in men aged 50 years and over and women aged 30 years and over. This was followed by those who responded “family member” (36.6%), with the highest values observed in men aged 20–59 years and women aged 20–29 years.

With regard to the stage of improving eating habits, the proportion of men who responded “none” was highest among men who responded “I’m not interested in improving my eating habits”; the proportion of men who responded “television” was highest among men who responded “I don’t intend to improve my eating habits though I’m interested”, “I intend to improve my eating habits within the next six months”, or “I have improved my eating habits for more than six months”; and the proportion of men who responded “family member” was highest among men who responded “I intend to improve my eating habits within the next month”, “I have improved my eating habits for less than six months”, or “I don’t intend to improve my eating habits because my eating habits have no problems”. Meanwhile, the proportion of those who responded “television” was highest in women irrespective of the stage of improving eating habits.

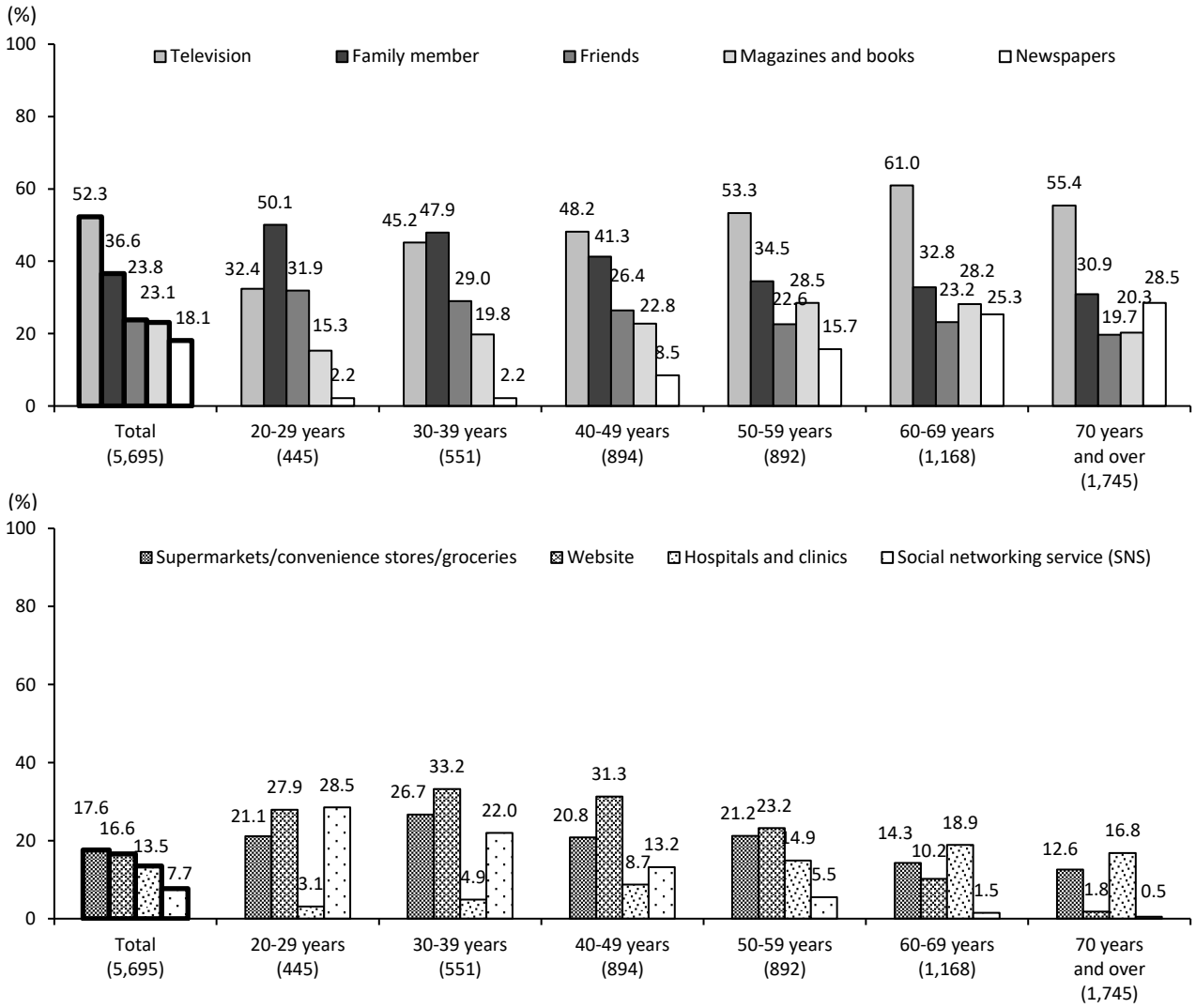


Figure 6. Sources of information for daily diet (aged 20 years and over, based on age)

* The total breakdown is not 100% because multiple answers are allowed.

Table 3. Sources of information for daily diet (aged 20 years and over, based on age and sex)

		Total		20–29 years		30–39 years		40–49 years		50–59 years		60–69 years		70 years and over	
		n	%	n	%	n	%	n	n	%	n	%	n	%	n
Men	Total	2,665	-	221	-	253	-	426	-	413	-	563	-	789	-
	Family member	1,094	41.1	96	43.4	115	45.5	198	46.5	169	40.9	220	39.1	296	37.5
	Friends	429	16.1	63	28.5	52	20.6	84	19.7	63	15.3	73	13.0	94	11.9
	Public health centers	39	1.5	0	0.0	0	0.0	11	2.6	5	1.2	14	2.5	9	1.1
	Hospitals and clinics	424	15.9	8	3.6	10	4.0	41	9.6	72	17.4	129	22.9	164	20.8
	Elderly care facilities	18	0.7	1	0.5	1	0.4	2	0.5	2	0.5	2	0.4	10	1.3
	Health education session and seminar	33	1.2	2	0.9	1	0.4	1	0.2	6	1.5	5	0.9	18	2.3
	Sports facilities	30	1.1	8	3.6	4	1.6	2	0.5	3	0.7	8	1.4	5	0.6
	Television	1,150	43.2	50	22.6	90	35.6	162	38.0	169	40.9	289	51.3	390	49.4
	Radio	137	5.1	2	0.9	9	3.6	29	6.8	24	5.8	28	5.0	45	5.7
	Newspapers	433	16.2	3	1.4	5	2.0	30	7.0	53	12.8	124	22.0	218	27.6
	Magazines and books	392	14.7	20	9.0	29	11.5	68	16.0	70	16.9	97	17.2	108	13.7
	Advertisement	56	2.1	4	1.8	4	1.6	3	0.7	8	1.9	16	2.8	21	2.7
	Website	411	15.4	48	21.7	72	28.5	106	24.9	94	22.8	68	12.1	23	2.9
	Social networking service (SNS)	150	5.6	39	17.6	33	13.0	46	10.8	18	4.4	10	1.8	4	0.5
	Club activities in the workplace or community	30	1.1	8	3.6	1	0.4	2	0.5	5	1.2	4	0.7	10	1.3
	Supermarkets/convenience stores/groceries	361	13.5	35	15.8	48	19.0	61	14.3	70	16.9	68	12.1	79	10.0
	Other	53	2.0	7	3.2	3	1.2	9	2.1	9	2.2	7	1.2	18	2.3
	None	446	16.7	39	17.6	46	18.2	55	12.9	72	17.4	90	16.0	144	18.3
	Unknown	83	3.1	15	6.8	10	4.0	14	3.3	13	3.1	8	1.4	23	2.9
Women	Total	3,030	-	224	-	298	-	468	-	479	-	605	-	956	-
	Family member	992	32.7	127	56.7	149	50.0	171	36.5	139	29.0	163	26.9	243	25.4
	Friends	925	30.5	79	35.3	108	36.2	152	32.5	139	29.0	198	32.7	249	26.0
	Public health centers	46	1.5	1	0.4	5	1.7	5	1.1	2	0.4	13	2.1	20	2.1
	Hospitals and clinics	343	11.3	6	2.7	17	5.7	37	7.9	61	12.7	92	15.2	130	13.6
	Elderly care facilities	33	1.1	1	0.4	0	0.0	0	0.0	4	0.8	2	0.3	26	2.7
	Health education session and seminar	91	3.0	0	0.0	3	1.0	5	1.1	9	1.9	20	3.3	54	5.6
	Sports facilities	48	1.6	5	2.2	2	0.7	5	1.1	13	2.7	13	2.1	10	1.0
	Television	1,829	60.4	94	42.0	159	53.4	269	57.5	306	63.9	424	70.1	577	60.4
	Radio	150	5.0	7	3.1	6	2.0	10	2.1	27	5.6	35	5.8	65	6.8
	Newspapers	597	19.7	7	3.1	7	2.3	46	9.8	87	18.2	171	28.3	279	29.2
	Magazines and books	926	30.6	48	21.4	80	26.8	136	29.1	184	38.4	232	38.3	246	25.7
	Advertisement	67	2.2	12	5.4	2	0.7	7	1.5	10	2.1	15	2.5	21	2.2
	Website	533	17.6	76	33.9	111	37.2	174	37.2	113	23.6	51	8.4	8	0.8
	Social networking service (SNS)	291	9.6	88	39.3	88	29.5	72	15.4	31	6.5	7	1.2	5	0.5
	Club activities in the workplace or community	106	3.5	7	3.1	8	2.7	9	1.9	13	2.7	24	4.0	45	4.7
	Supermarkets/convenience stores/groceries	642	21.2	59	26.3	99	33.2	125	26.7	119	24.8	99	16.4	141	14.7
	Other	64	2.1	6	2.7	3	1.0	10	2.1	13	2.7	16	2.6	16	1.7
	None	324	10.7	17	7.6	22	7.4	43	9.2	59	12.3	45	7.4	138	14.4
	Unknown	72	2.4	13	5.8	9	3.0	6	1.3	6	1.3	9	1.5	29	3.0

* The total breakdown is not 100% because multiple answers are allowed.
* The shaded cells show the most selected point for each age category.

Table 4. Sources of information for daily diet according to the stage of improvement of eating habits (aged 20 years and over, based on age and sex)

		Total		Not interested in improving		Not intend to improve though I'm interested		Intend to improve within the next six months		Intend to improve within the next month		Have improved for less than six months		Have improved for more than six months		Not have to improve because my eating habits have no problems	
		n	%	n	%	n	%	n	n	%	n	%	n	%	n	n	%
Men	Total	2,654	-	439	-	652	-	354	-	99	-	154	-	389	-	567	-
	Family member	1,090	41.1	130	29.6	260	39.9	174	49.2	49	49.5	70	45.5	150	38.6	257	45.3
	Friends	425	16.0	33	7.5	104	16.0	80	22.6	21	21.2	34	22.1	59	15.2	94	16.6
	Hospitals and clinics	421	15.9	17	3.9	71	10.9	69	19.5	12	12.1	49	31.8	138	35.5	65	11.5
	Television	1,144	43.1	112	25.5	299	45.9	183	51.7	37	37.4	62	40.3	215	55.3	236	41.6
	Radio	135	5.1	6	1.4	33	5.1	28	7.9	5	5.1	8	5.2	27	6.9	28	4.9
	Newspapers	428	16.1	28	6.4	105	16.1	55	15.5	14	14.1	16	10.4	94	24.2	116	20.5
	Magazines and books	390	14.7	22	5.0	89	13.7	64	18.1	14	14.1	34	22.1	83	21.3	84	14.8
	Website	411	15.5	38	8.7	96	14.7	80	22.6	23	23.2	32	20.8	68	17.5	74	13.1
	Social networking service (SNS)	150	5.7	14	3.2	38	5.8	37	10.5	11	11.1	7	4.5	16	4.1	27	4.8
	Supermarkets/convenience stores/groceries	360	13.6	49	11.2	109	16.7	62	17.5	18	18.2	18	11.7	43	11.1	61	10.8
	None	443	16.7	158	36.0	111	17.0	20	5.6	9	9.1	13	8.4	30	7.7	102	18.0
Women	Total	3,013	-	323	-	752	-	448	-	145	-	237	-	467	-	641	-
	Family member	987	32.8	77	23.8	259	34.4	158	35.3	59	40.7	83	35.0	137	29.3	214	33.4
	Friends	919	30.5	57	17.6	238	31.6	150	33.5	48	33.1	84	35.4	157	33.6	185	28.9
	Hospitals and clinics	341	11.3	12	3.7	47	6.3	52	11.6	21	14.5	51	21.5	116	24.8	42	6.6
	Television	1,819	60.4	122	37.8	459	61.0	293	65.4	94	64.8	154	65.0	316	67.7	381	59.4
	Radio	148	4.9	8	2.5	38	5.1	23	5.1	7	4.8	14	5.9	34	7.3	24	3.7
	Newspapers	594	19.7	31	9.6	111	14.8	90	20.1	23	15.9	46	19.4	146	31.3	147	22.9
	Magazines and books	920	30.5	45	13.9	186	24.7	154	34.4	61	42.1	93	39.2	175	37.5	206	32.1
	Website	532	17.7	29	9.0	136	18.1	117	26.1	38	26.2	57	24.1	74	15.8	81	12.6
	Social networking service (SNS)	291	9.7	14	4.3	85	11.3	76	17.0	27	18.6	25	10.5	31	6.6	33	5.1
	Supermarkets/convenience stores/groceries	641	21.3	47	14.6	196	26.1	123	27.5	39	26.9	45	19.0	75	16.1	116	18.1
	None	322	10.7	93	28.8	82	10.9	24	5.4	6	4.1	9	3.8	22	4.7	86	13.4

* The answers for which less than 5% of participants responded (i.e., "public health centers", "elderly care facilities", "health education session and seminar", "sports facilities", "advertisement", "club activities in the workplace or community", "other", and "none") were not included the analysis.
* The total breakdown is not 100% because multiple answers are allowed.
* The shaded cells show the most selected point for each stage of improvement of eating habits.

4. Eating out and the use of takeaway food, home delivery meal service, and health food

The proportion of those who eat out at least once a week was 41.6% in men and 26.7% in women; these values were higher in the younger age groups. The proportion of those who used takeaway food at least once a week was 47.2% in men and 44.3% in women; these values were higher in participants aged 20–59 years. The proportion of those who used home delivery meal services at least once a week was 5.8% in men and 4.6% in women.

The proportion of those who used health food was 30.2% in men and 38.2% in women; these values were highest in both men and women aged 60–69 years. In terms of the consumption of health food, the highest response was "complement protein intake" for men aged 20–29 years and "complement vitamin intake" for women aged 20–29 years. Meanwhile, the proportion of those who responded "health maintenance and promotion" was highest among other age groups.

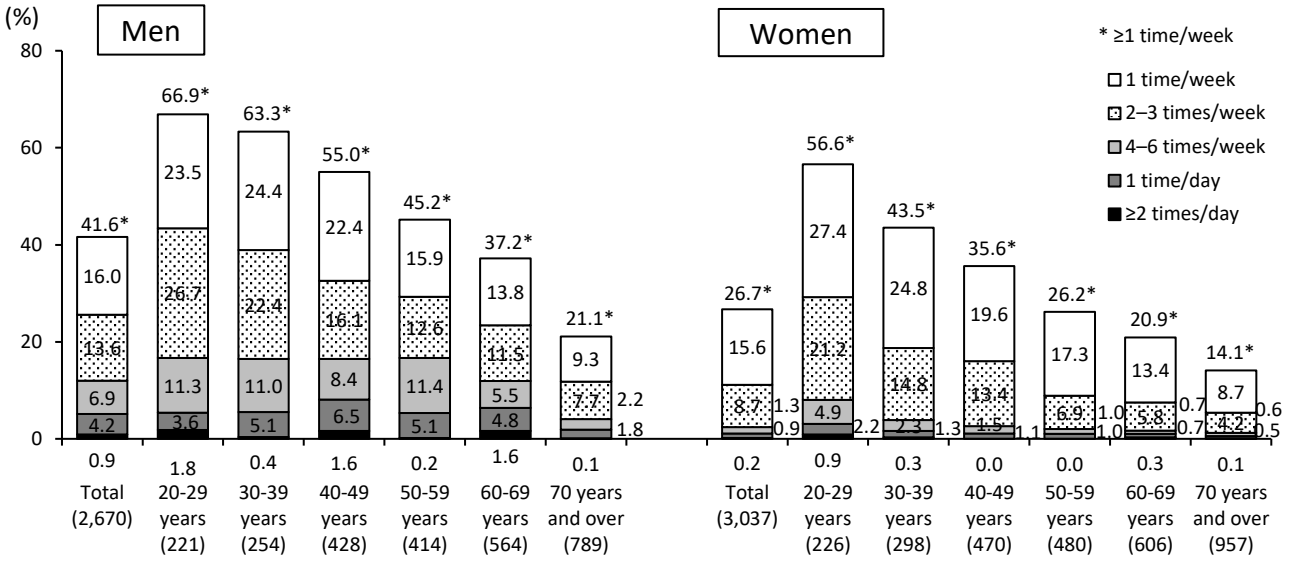


Figure 7. Frequency of eating out (aged 20 years and over, based on age and sex)

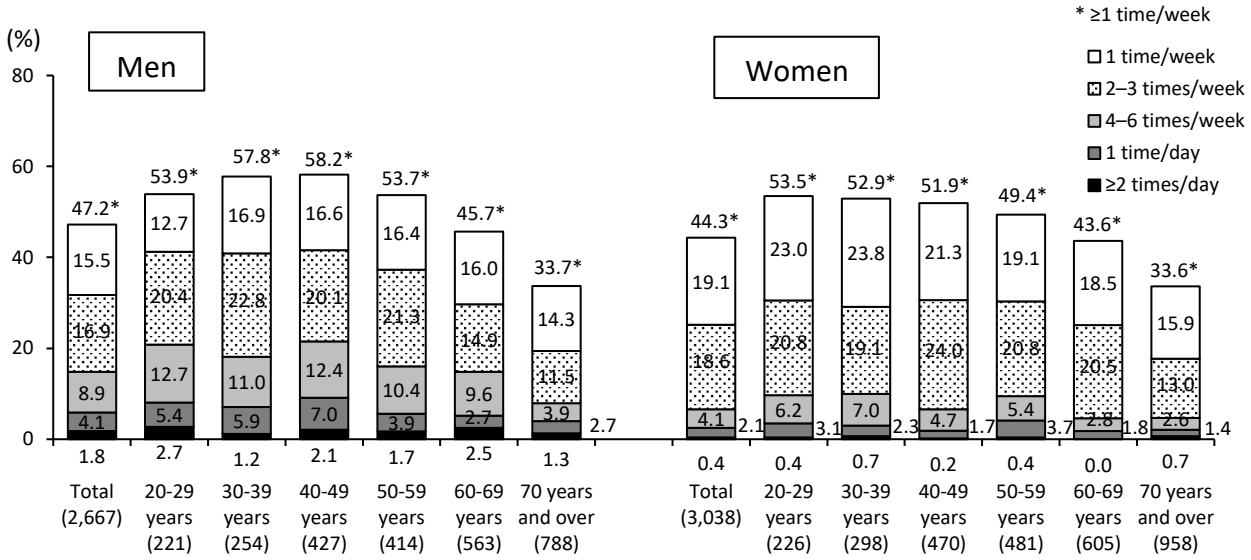


Table 8. Frequency of the use of takeaway food (aged 20 years and over, based on age and sex)

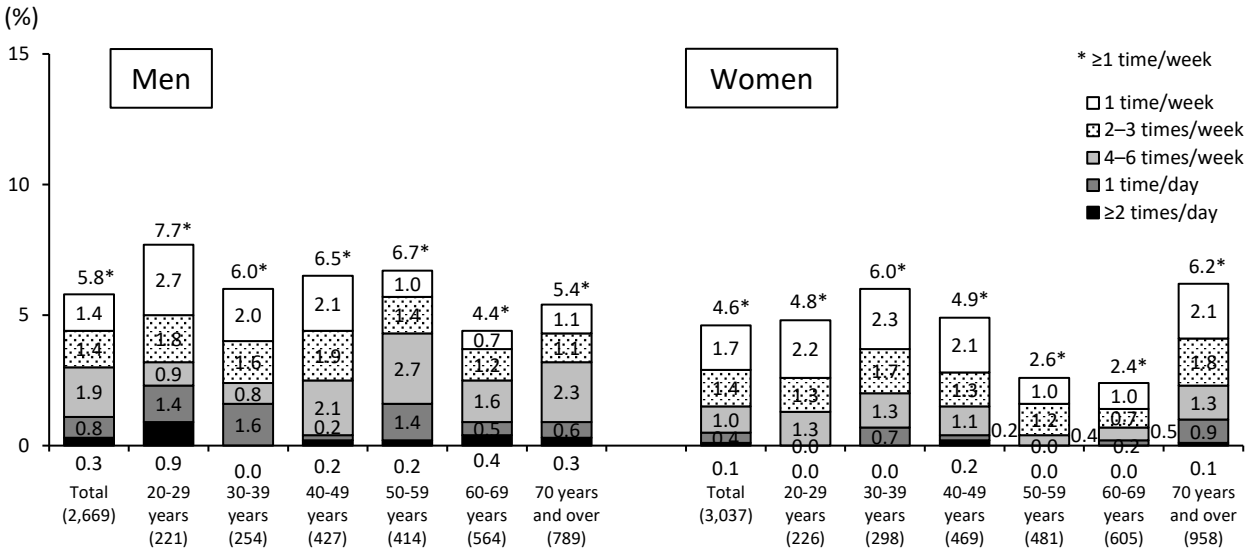


Figure 9. Frequency of the use of home delivery meal services (aged 20 years and over, based on age and sex)

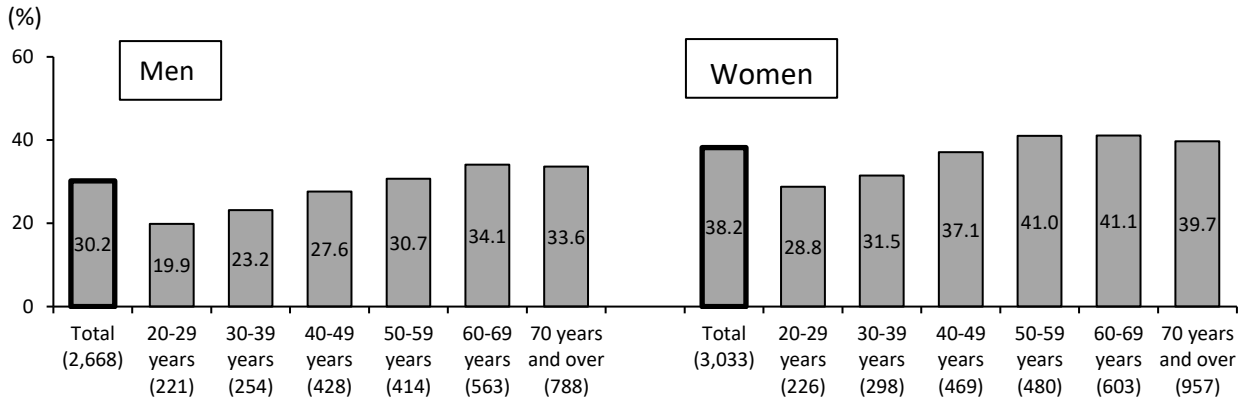


Figure 10. Proportion of those consuming health food (aged 20 years and over, based on age and sex)

Table 5. Reasons for the consumption of health food (aged 20 years and over, based on age and sex)

		Total		20–29 years		30–39 years		40–49 years		50–59 years		60–69 years		70 years and over	
		n	%	n	%	n	%	n	n	%	n	%	n	%	n
Men	Total	805	-	44	-	59	-	118	-	127	-	192	-	265	-
	Health maintenance and promotion	582	72.3	19	43.2	37	62.7	70	59.3	94	74.0	155	80.7	207	78.1
	Complement protein intake	84	10.4	22	50.0	10	16.9	18	15.3	11	8.7	10	5.2	13	4.9
	Complement vitamin intake	243	30.2	19	43.2	30	50.8	42	35.6	33	26.0	52	27.1	67	25.3
	Complement mineral intake	87	10.8	7	15.9	7	11.9	19	16.1	10	7.9	21	10.9	23	8.7
	Other	123	15.3	7	15.9	7	11.9	19	16.1	18	14.2	28	14.6	44	16.6
Women	Total	1,158	-	65	-	94	-	174	-	197	-	248	-	380	-
	Health maintenance and promotion	818	70.6	25	38.5	55	58.5	114	65.5	140	71.1	184	74.2	300	78.9
	Complement protein intake	109	9.4	11	16.9	6	6.4	15	8.6	17	8.6	29	11.7	31	8.2
	Complement vitamin intake	374	32.3	45	69.2	34	36.2	74	42.5	61	31.0	66	26.6	94	24.7
	Complement mineral intake	128	11.1	10	15.4	12	12.8	21	12.1	20	10.2	28	11.3	37	9.7
	Other	192	16.6	8	12.3	23	24.5	34	19.5	36	18.3	41	16.5	50	13.2

* The total breakdown is not 100% because multiple answers are allowed.
* The shaded cells show the most selected point for each age category.

5. Intention to improve exercise habits

For the intention to improve exercise habits, the proportion of those who responded “I don’t intend to improve my exercise habits though I’m interested” was highest among both men (23.9%) and women (26.3%).
With regard to BMI categories, the proportion of those who responded “I don’t intend to improve my exercise habits though I’m interested” was highest among obese and normal-weight participants. Meanwhile, the proportion of those who responded “I’m not interested in improving my exercise habits” was highest in underweight men and the proportion of those who responded “I don’t intend to improve my exercise habits though I’m interested” was highest in underweight women.
With regard to the status of exercise habits, the proportion of those who responded “I have improved my exercise habits for more than six months” was highest among both men (34.3%) and women (40.5%) who exercise regularly. The proportion of those who responded “I do not intend to improve my exercise habits though I’m interested” was highest among both men (31.2%) and women (28.2%) who did not exercise regularly.

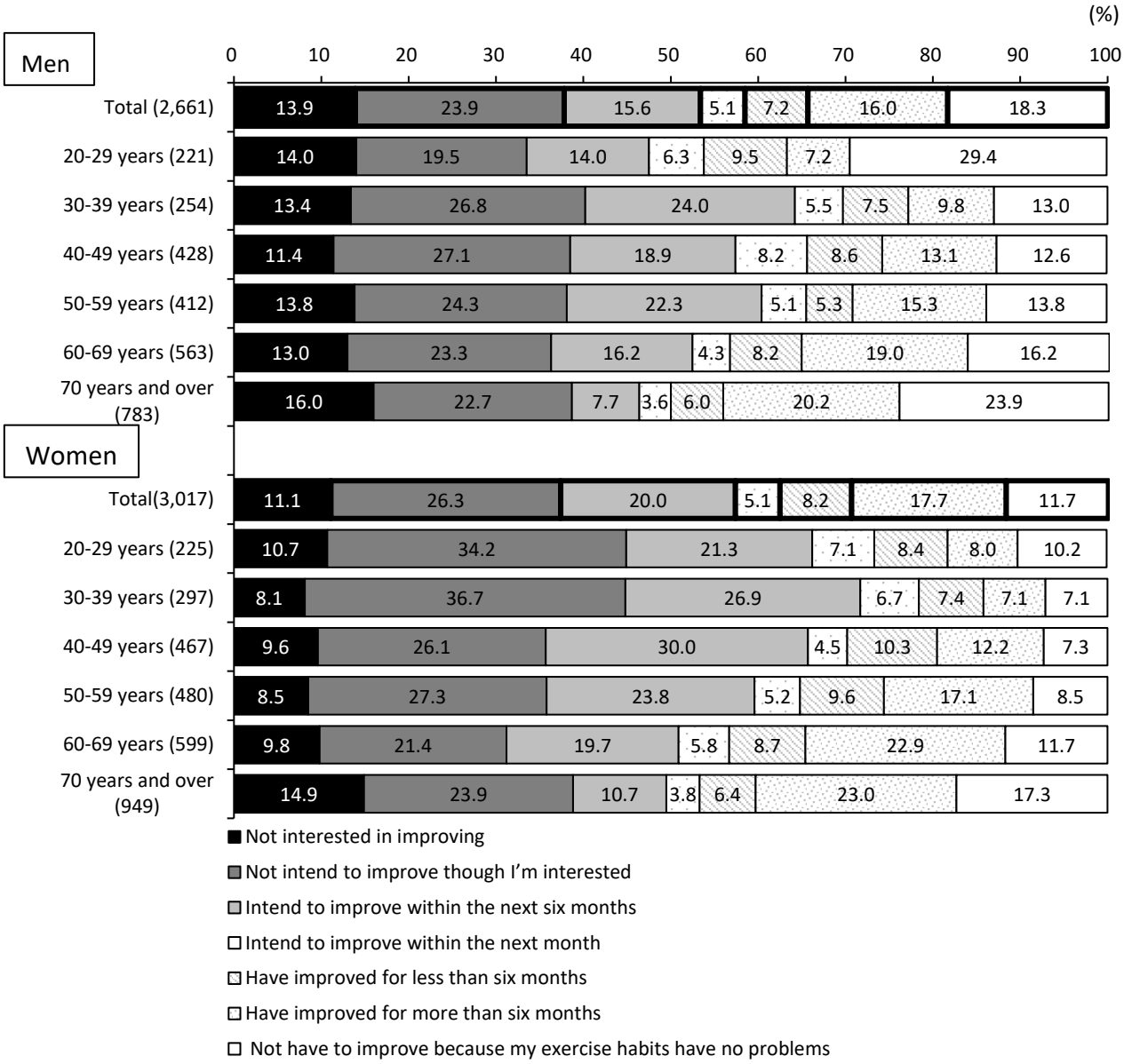


Figure 11. Intention to improve exercise habits (aged 20 years and over, based on age and sex)

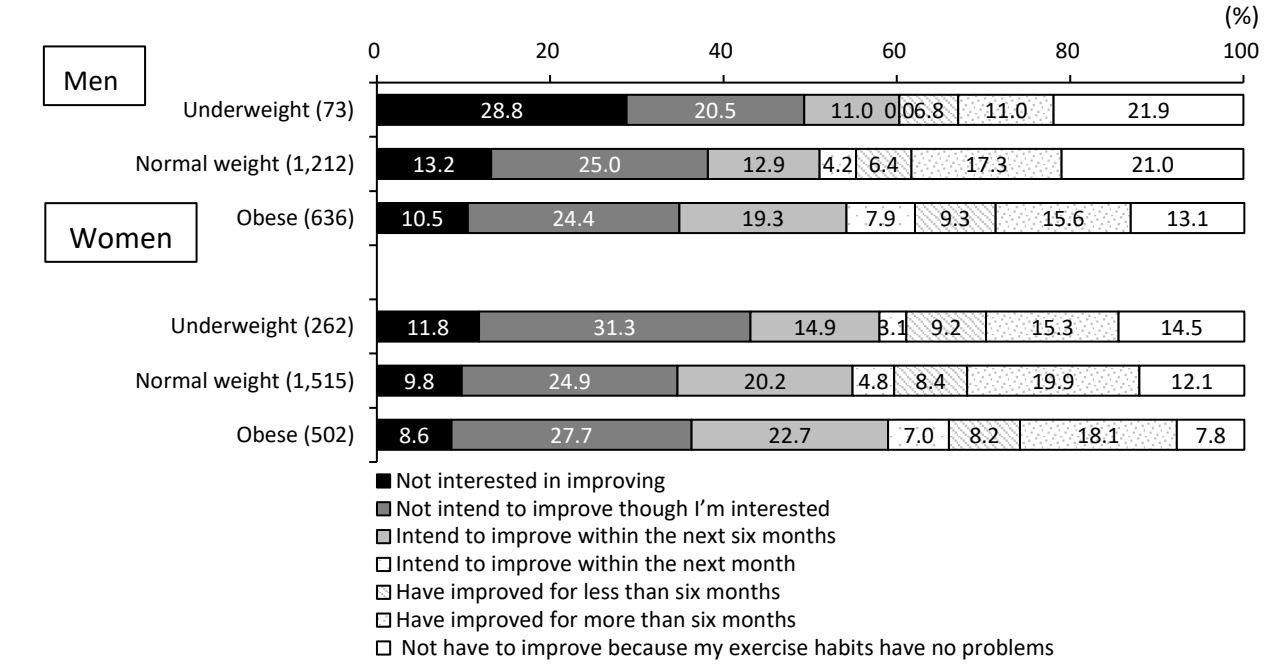


Figure 12. Intention to improve exercise habits according to BMI (aged 20 years and over, based on sex)

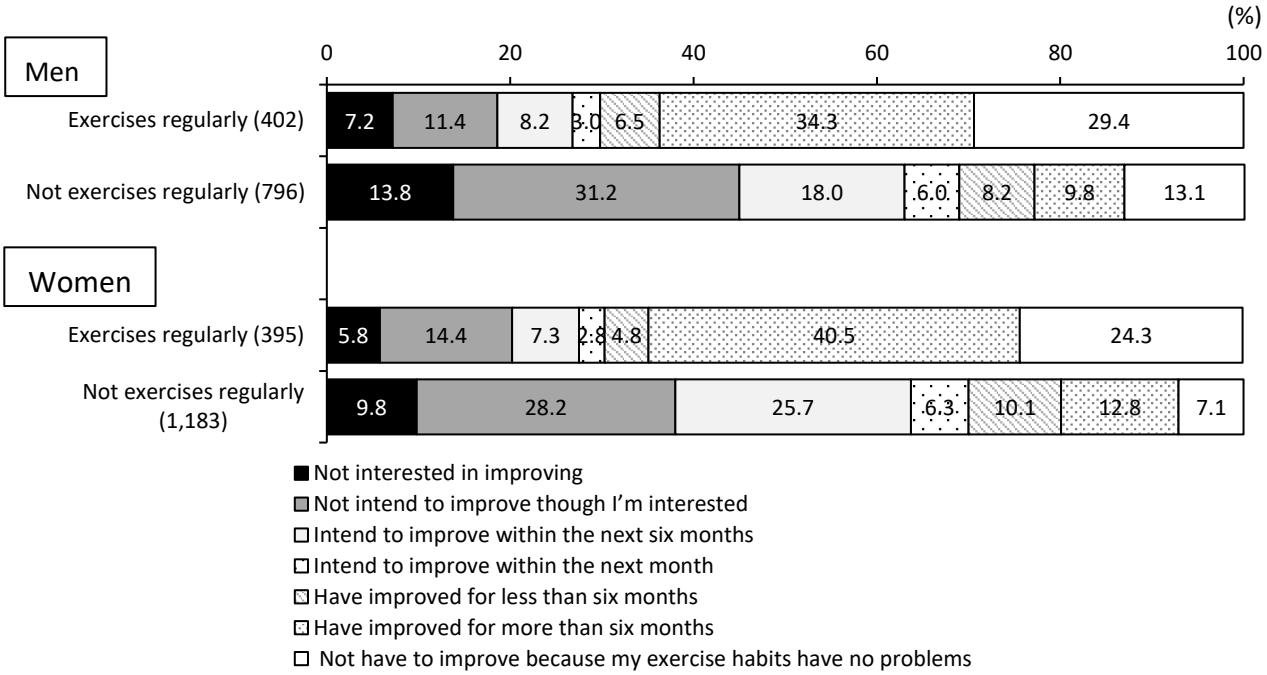


Figure 13. Intention to improve exercise habits according to the status of exercise habits (aged 20 years and over, based on sex)

6. Barriers to regular exercise habits

Regarding with the stage of improving exercise habits, the proportion of those who responded “busy with job/housework/child care” as the barriers to regular exercise habits was highest among those who responded “I don’t intend to improve my exercise habits though I’m interested”, “I intend to improve my exercise habits within the next (six) month(s)”, and “I have improved my exercise habits for less than six months”. The proportion of those who responded “none” was highest among those who responded “I’m not interested in improving my exercise habits” and “I have improved my exercise habits for more than six months”.

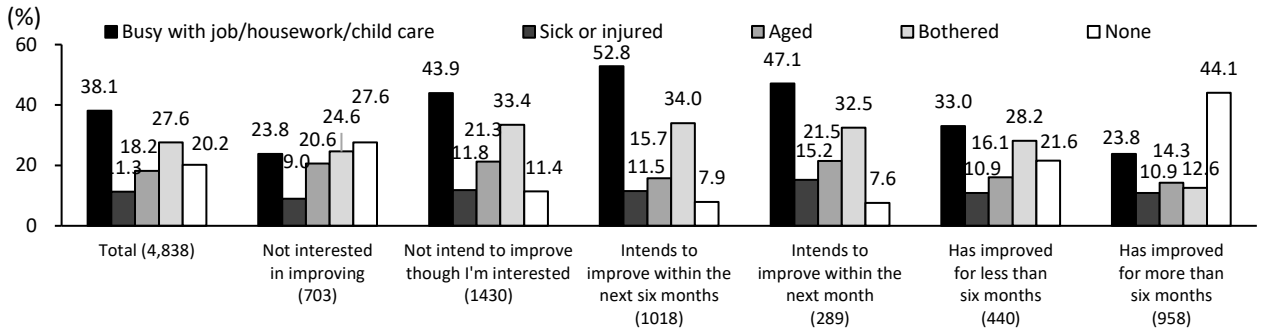


Figure 14. Barriers to regular exercise habits according to the stage of improving exercise habits (aged 20 years and over)

Table 6. Barriers to regular exercise habits according to the stage of improving exercise habits (aged 20 years and over, based on sex)

		Total		Not interested in improving		Not intend to improve though I’m interested		Intends to improve within the next six months		Intends to improve within the next month		Has improved for less than six months		Has improved for more than six months	
		n	%	n	%	n	%	n	n	%	n	%	n	%	n
Men	Total	2,174	-	369	-	636	-	416	-	136	-	192	-	425	-
	Busy with job/ housework/child care	803	36.9	86	23.3	267	42.0	213	51.2	69	50.7	68	35.4	100	23.5
	Sick or injured	229	10.5	32	8.7	76	11.9	48	11.5	14	10.3	20	10.4	39	9.2
	Aged	412	19.0	62	16.8	131	20.6	82	19.7	29	21.3	38	19.8	70	16.5
	Lack of place or sports facilities	102	4.7	6	1.6	28	4.4	29	7.0	11	8.1	11	5.7	17	4.0
	Lack of peers	105	4.8	16	4.3	36	5.7	27	6.5	12	8.8	4	2.1	10	2.4
	Lack of coaches	42	1.9	4	1.1	9	1.4	9	2.2	6	4.4	5	2.6	9	2.1
	Monetary cost	137	6.3	24	6.5	52	8.2	24	5.8	11	8.1	12	6.3	14	3.3
	Not like exercise	112	5.2	27	7.3	40	6.3	20	4.8	8	5.9	11	5.7	6	1.4
	Too troublesome	602	27.7	97	26.3	212	33.3	138	33.2	42	30.9	55	28.6	58	13.6
	Other	90	4.1	8	2.2	25	3.9	21	5.0	3	2.2	7	3.6	26	6.1
	None	473	21.8	110	29.8	87	13.7	29	7.0	14	10.3	44	22.9	189	44.5
	Unknown	40	1.8	16	4.3	14	2.2	2	0.5	1	0.7	2	1.0	5	1.2
Women	Total	2,664	-	334	-	794	-	602	-	153	-	248	-	533	-
	Busy with job/ housework/child care	1,038	39.0	81	24.3	361	45.5	324	53.8	67	43.8	77	31.0	128	24.0
	Sick or injured	316	11.9	31	9.3	93	11.7	69	11.5	30	19.6	28	11.3	65	12.2
	Aged	467	17.5	83	24.9	173	21.8	78	13.0	33	21.6	33	13.3	67	12.6
	Lack of place or sports facilities	153	5.7	8	2.4	40	5.0	63	10.5	11	7.2	16	6.5	15	2.8
	Lack of peers	149	5.6	6	1.8	49	6.2	52	8.6	18	11.8	16	6.5	8	1.5
	Lack of coaches	58	2.2	3	0.9	16	2.0	23	3.8	10	6.5	3	1.2	3	0.6
	Monetary cost	211	7.9	21	6.3	79	9.9	65	10.8	8	5.2	16	6.5	22	4.1
	Not like exercise	373	14.0	53	15.9	145	18.3	90	15.0	21	13.7	32	12.9	32	6.0
	Too troublesome	734	27.6	76	22.8	266	33.5	208	34.6	52	34.0	69	27.8	63	11.8
	Other	152	5.7	11	3.3	35	4.4	36	6.0	13	8.5	28	11.3	29	5.4
	None	503	18.9	84	25.1	76	9.6	51	8.5	8	5.2	51	20.6	233	43.7
	Unknown	41	1.5	14	4.2	11	1.4	2	0.3	2	1.3	2	0.8	10	1.9

* Participants included were those who chose any answer except for “I don’t have to improve my exercise habits because my exercise habits have no problems” and who answered the question for barriers to regular exercise habits.
* The total breakdown is not 100% because multiple answers are allowed.
* The shaded cells show the most selected point for each stage of improving exercise habits.

7. Emergency stocks of food

In total, 53.8% of households stored emergency stocks of food and these values were highest in the Kanto I area (72.3%) and lowest in the Minamikyushu area (33.1%).

Among households which store emergency stocks of food, the proportion of households which store emergency stocks for at least 3 days was 69.9%.

The type of emergency stocks of food was staple food (80.0%), main/side dishes (79.0%), and beverages (90.3%).

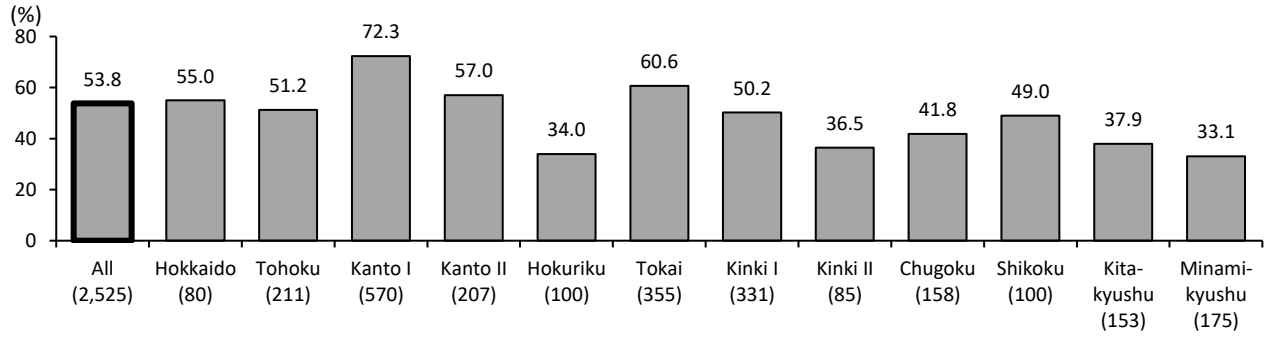


Figure 15. Proportion of households which store emergency stocks of food (aged 20 years and over, based on area)

* Households included in the analysis were that they stored emergency stocks of food (1,359 households)

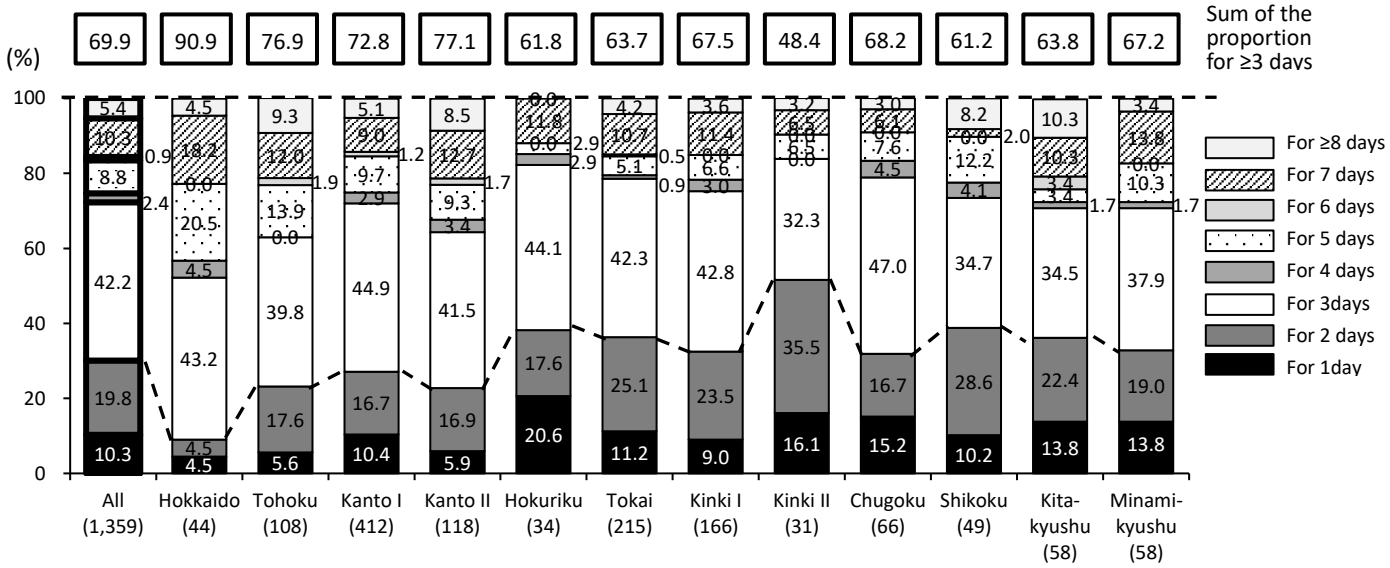
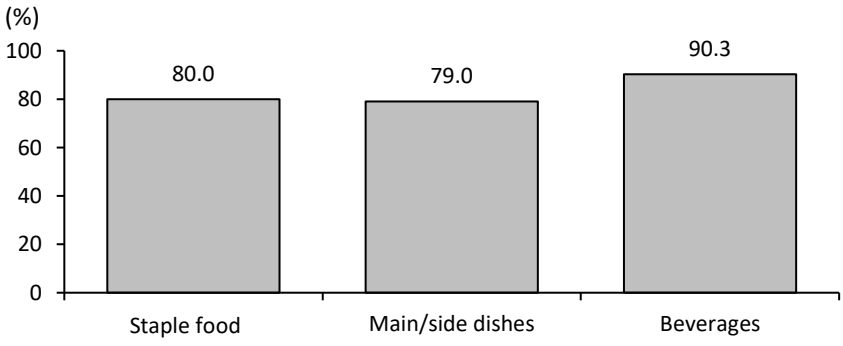


Figure 16. Amount of emergency stocks of food stored (aged 20 years and over, based on area)

* Households included in the analysis were that they stored emergency stocks of food (1,359 households)



Prefectures included in each area:
- Hokkaido: Hokkaido
- Tohoku: Aomori, Iwate, Miyagi, Akita, Yamagata, and Fukushima
- Kanto I: Saitama, Chiba, Tokyo, and Kanagawa
- Kanto II: Ibaraki, Tochigi, Gunma, Yamanashi, and Nagano
- Hokuriku: Niigata, Toyama, Ishikawa, and Fukui
- Tokai: Gifu, Aichi, Mie, and Shizuoka
- Kinki I: Kyoto, Osaka, and Hyogo
- Kinki II: Nara, Wakayama, and Shiga
- Chugoku: Tottori, Shimane, Okayama, Hiroshima, and Yamaguchi
- Shikoku: Tokushima, Kagawa, Ehime, and Kochi
- Kitakyushu: Fukuoka, Saga, Nagasaki, and Oita
- Minamikyushu: Kumamoto, Miyazaki, Kagoshima, and Okinawa

Table 17. Type of emergency stocks of food stored (aged 20 years and over, based on area)

* The total breakdown is not 100% because multiple answers are allowed.

Part II. Results of basic items
Chapter 1. Physical condition and diabetes

1. Obesity and underweight

The proportion of obesity (BMI ≥ 25 kg/m^2) was 33.0% in men and 22.3% in women. These values have significantly increased since 2013 in men, while there has been no significant change over the past 10 years in women.
The proportion of underweight (BMI < 18.5 kg/m^2) was 3.9% in men and 11.5% in women, with no significant change over the past 10 years in both sexes. Additionally, the proportion of underweight was 20.7% in women aged 20–29 years.
The proportion of malnutrition (BMI ≤ 20 kg/m^2) in elderly aged 65 years and over was 12.4% for men and 20.7% for women with no significant change over the past 10 years in both sexes. With regard to the age category, the proportion was higher in men and women aged 85 years and over.

* Evaluation of obesity: body mass index (BMI [kg/m^2]: body weight [kg]/(height [m])^2) was used to evaluate obesity (Obesity Criteria-Reviewing Committee of Japan Society for the Study of Obesity, 2011).

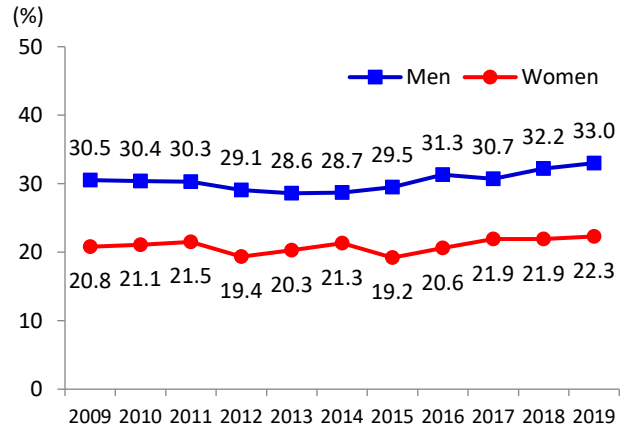


Figure 18-1. Annual changes in the proportion of obesity (BMI ≥ 25 kg/m^2) (aged 20 years and over) (2009–2019)

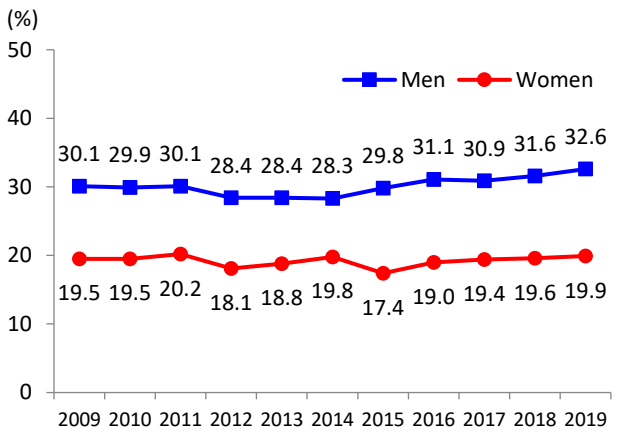


Figure 18-2. Annual changes in the age-adjusted proportion of obesity (BMI ≥ 25 kg/m^2) (aged 20 years and over) (2009–2019)

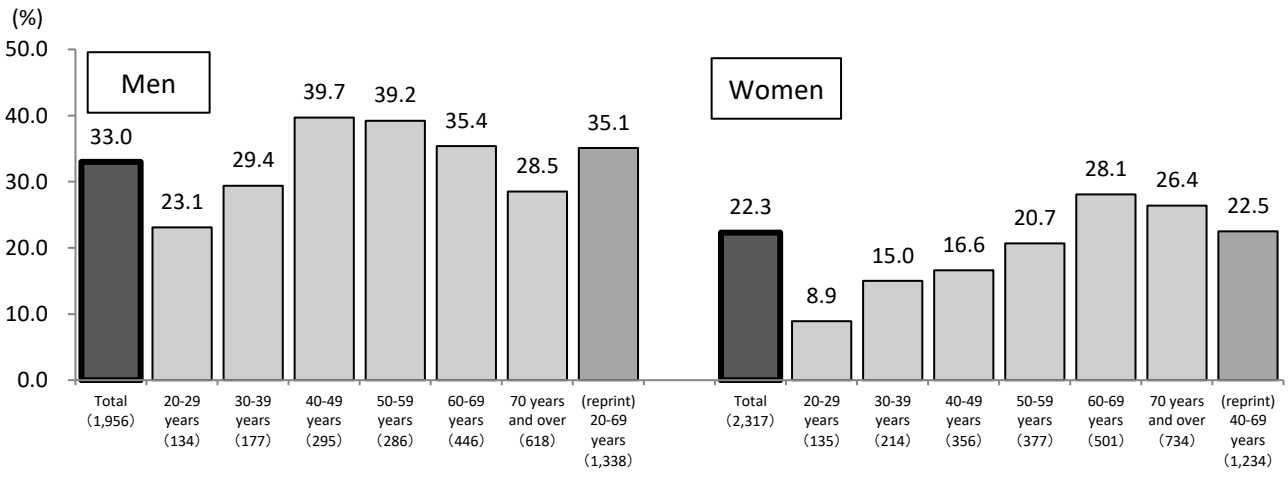


Figure 19. Proportion of obesity (BMI ≥ 25 kg/m^2) (aged 20 years and over, based on age and sex)

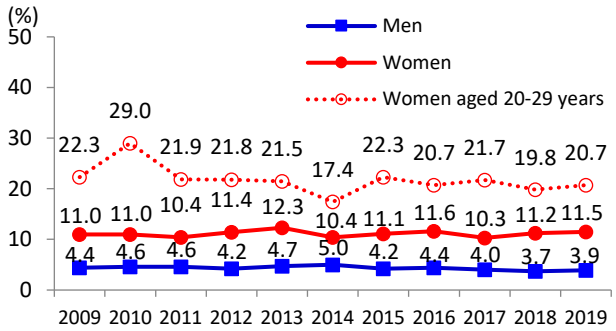


Figure 20-1. Annual changes in the proportion of underweight (BMI<18.5 kg/m^2) (aged 20 years and over) (2009–2019)

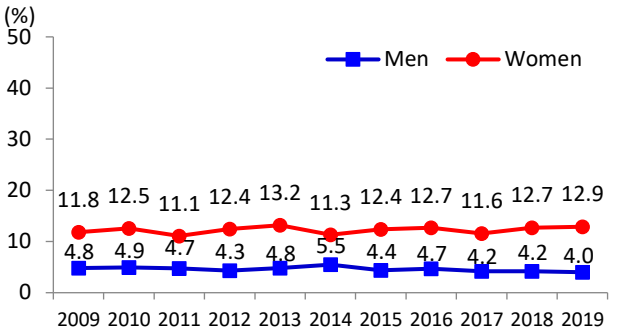


Figure 20-2. Annual changes in the age-adjusted proportion of underweight (BMI<18.5 kg/m^2) (aged 20 years and over) (2009–2019)

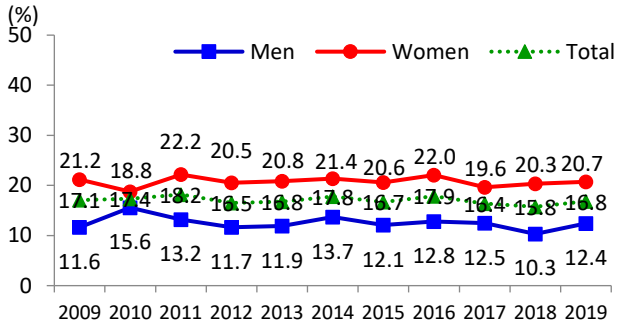


Figure 21-1. Annual changes in the proportion of malnutrition (BMI ≤ 20 kg/m^2) (aged 65 years and over) (2009–2019)

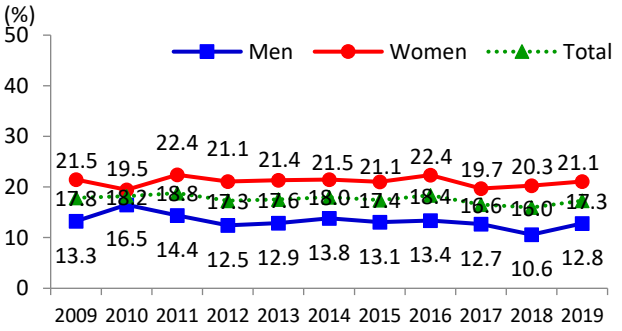


Figure 21-2. Annual changes in the age-adjusted proportion of malnutrition (BMI ≤ 20 kg/m^2) (2009–2019)

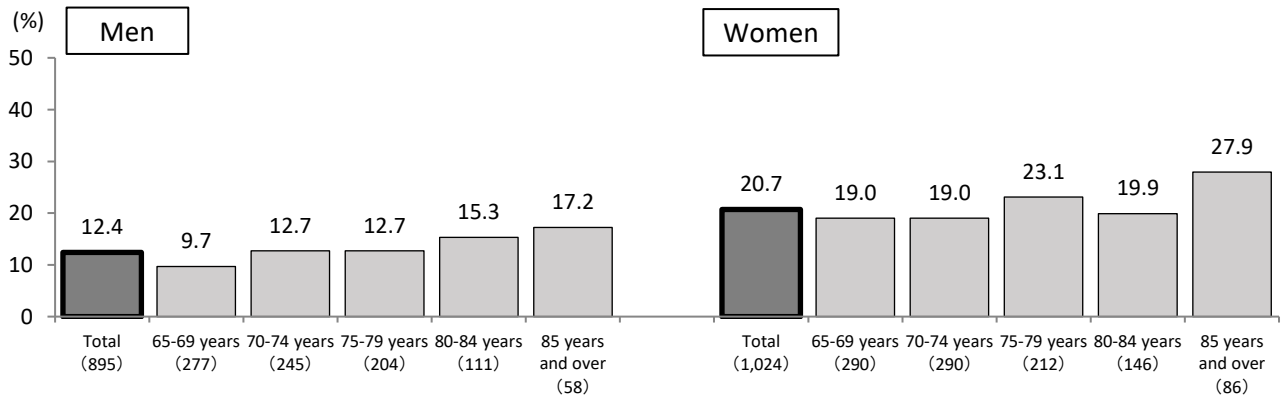


Figure 22. Proportion of malnutrition (BMI ≤ 20 kg/m^2) (aged 65 years and over, men and women, based on age)

2. Diabetes

The proportion of “those in whom diabetes is strongly suspected” was 19.7% in men and 10.8% in women with no significant change over the past 10 years in both sexes. This proportion was higher in the older age groups.

* “Those in whom diabetes is strongly suspected” was defined as participants with a hemoglobin A1c (NGSP) value of 6.5% or higher (or a hemoglobin A1c [JDS] value of 6.1% or higher before 2012) or those who responded “yes” to the question “Have you ever received diabetes treatment?” among those with a hemoglobin A1c value and valid responses to “diagnosis of diabetes,” “treatment for diabetes,” and “status of treatment.”

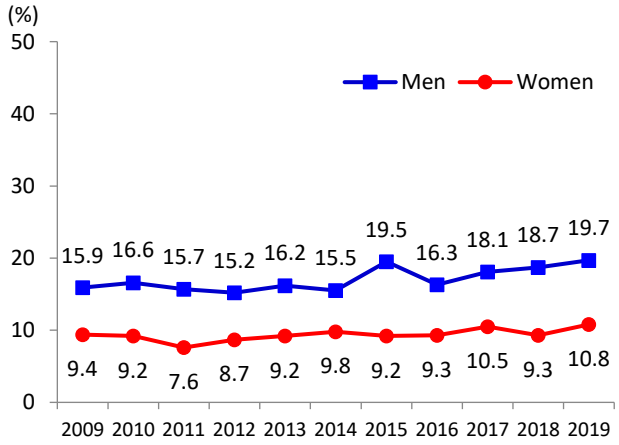


Figure 23-1. Annual changes in the proportion of “those in whom diabetes is strongly suspected” (aged 20 years and over) (2009–2019)

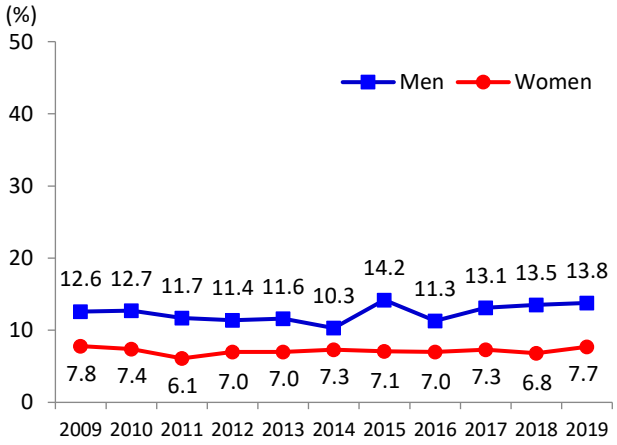


Figure 23-2. Annual changes in the age-adjusted proportion of “those in whom diabetes is strongly suspected” (aged 20 years and over) (2009–2019)

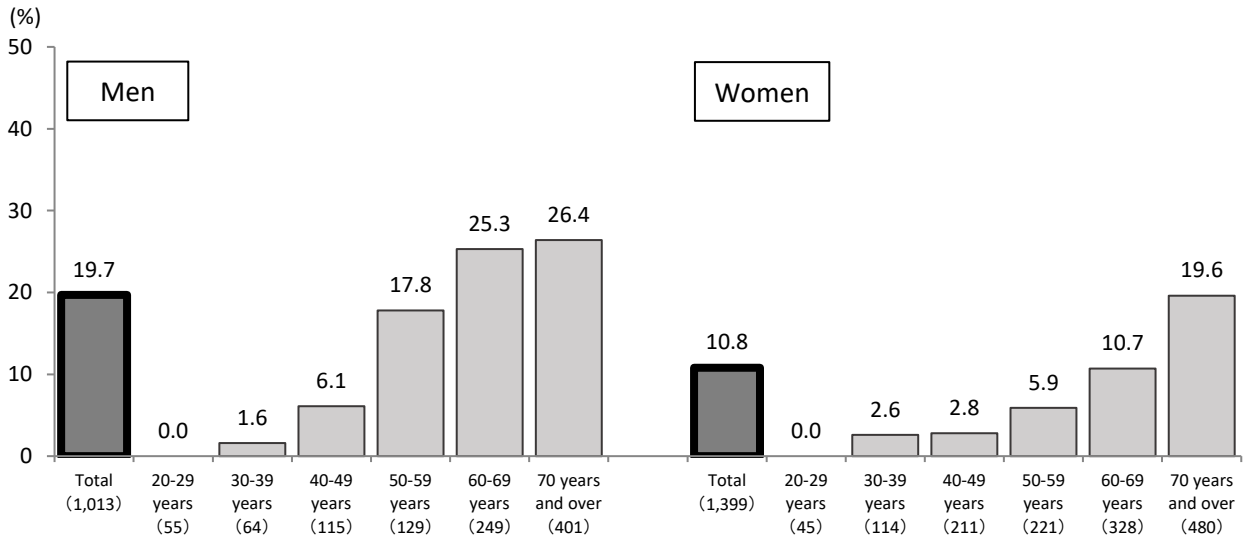


Figure 24. Proportion of “those in whom diabetes is strongly suspected” (aged 20 years and older, based on age and sex)

3. Blood pressure

The mean systolic blood pressure was 132.0 mmHg in men and 126.5 mmHg in women. These values have significantly decreased over the past 10 years in both sexes.
The proportion of those with a systolic blood pressure of 140 mmHg or higher was 29.9% in men and 24.9% in women. These values have significantly decreased over the past 10 years in both sexes.

* Mercury-free sphygmomanometers have been used for measurement since 2019.

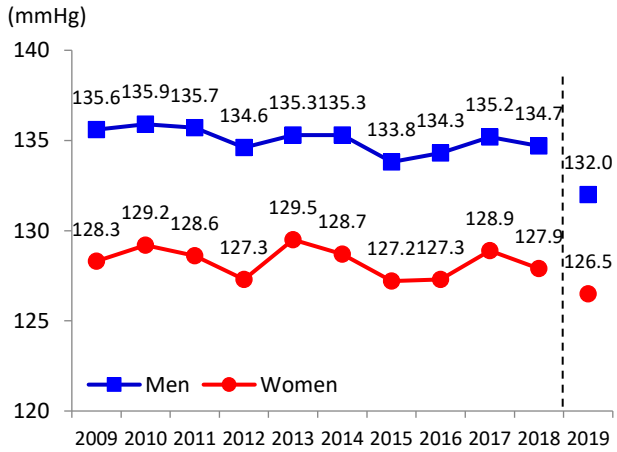


Figure 25-1. Annual changes in the mean systolic blood pressure (aged 20 years and over) (2009–2019)

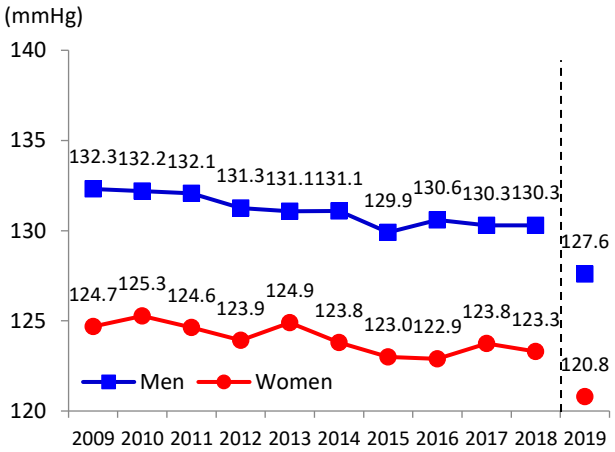


Figure 25-2. Annual changes in the age-adjusted mean systolic blood pressure (aged 20 years and over) (2009–2019)

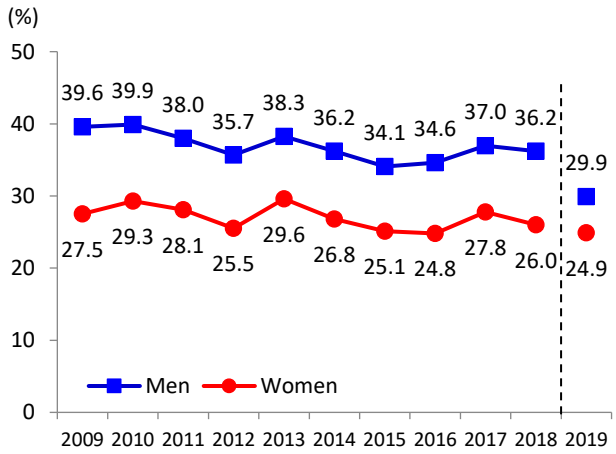


Figure 26-1. Annual changes in the proportion of those with a systolic blood pressure of 140 mmHg or higher (aged 20 years and over) (2009–2019)

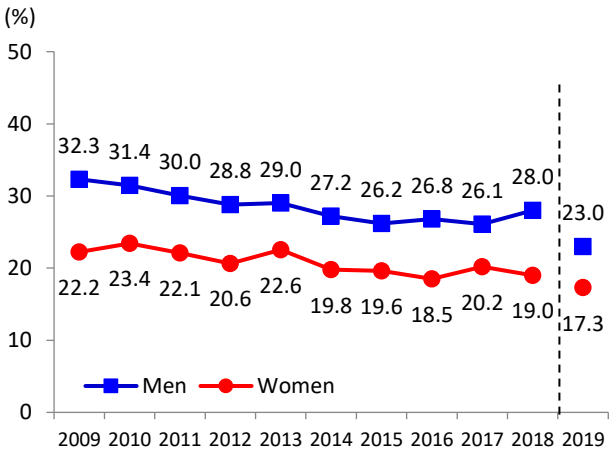


Figure 26-2. Annual changes in the age-adjusted proportion of those with a systolic blood pressure of 140 mmHg or higher (aged 20 years and over) (2009–2019)

4. Blood cholesterol

The proportion of those with a serum total cholesterol level of 240 mg/dL or higher was 12.9% in men and 22.4% in women. These values have significantly increased over the past 10 years in women but not in men.
The mean serum non HDL cholesterol level was 141.9 mg/dL in men and 145.9 mg/dL in women with no significant change over the past 10 years in both sexes.

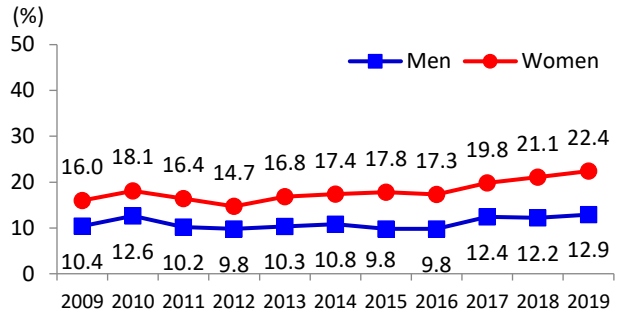


Figure 27-1. Annual changes in the proportion of those with serum total cholesterol level of 240 mg/dL and over (aged 20 years and over) (2009–2019)

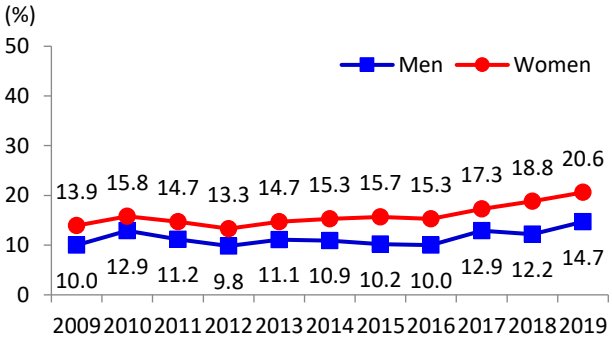


Figure 27-2. Annual changes in the age-adjusted proportion of those with serum total cholesterol level of 240 mg/dL and over (aged 20 years and over) (2009–2019)

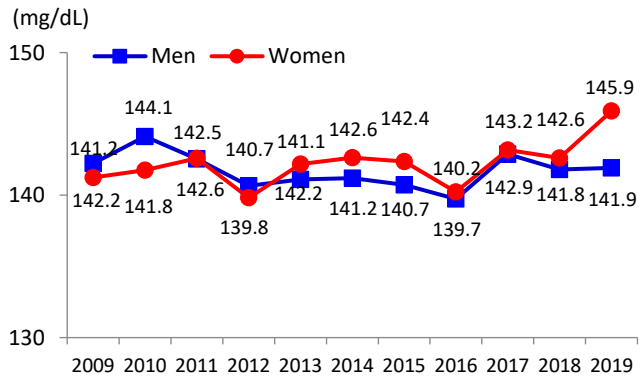


Figure 28-1. Annual changes in the mean serum non HDL cholesterol level (aged 20 years and over) (2009–2019)

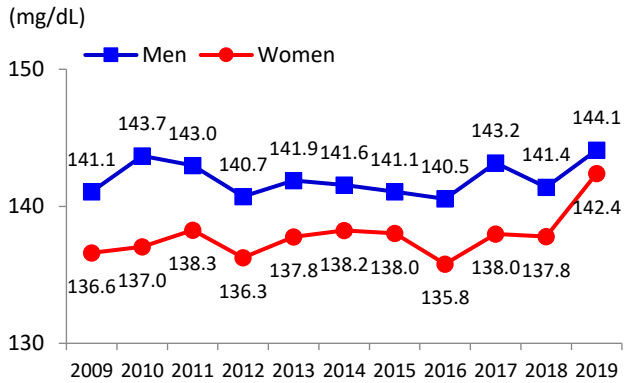


Figure 28-2. Annual changes in the age-adjusted mean serum non HDL cholesterol level (aged 20 years and over) (2009–2019)

*non HDL cholesterol (mg/dL) = total cholesterol (mg/dL) − HDL cholesterol (mg/dL)

Chapter 2. Nutrition/dietary habits

1. Salt intake

The mean salt intake was 10.1 g in all participants, 10.9 g in men, and 9.3 g in women. These values have significantly decreased over the past 10 years in men. A similar trend was observed from 2009 to 2015 in women, with no significant change since 2015. The highest mean intake was observed in men and women aged 60–69 years.

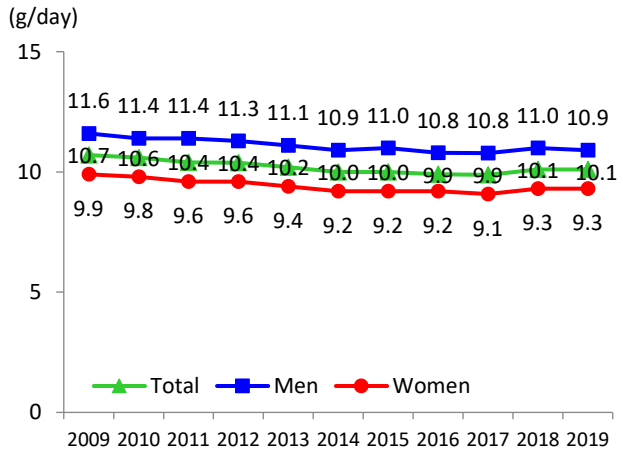


Figure 29-1. Annual changes in the mean salt intake (aged 20 years and over) (2009–2019)

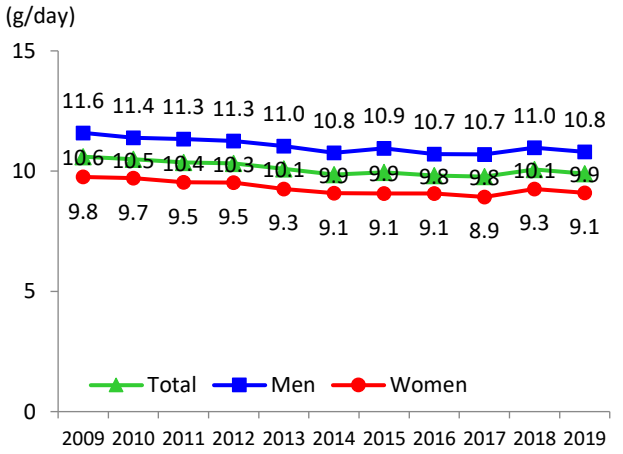


Figure 29-2. Annual changes in the age-adjusted mean salt intake (aged 20 years and over) (2009–2019)

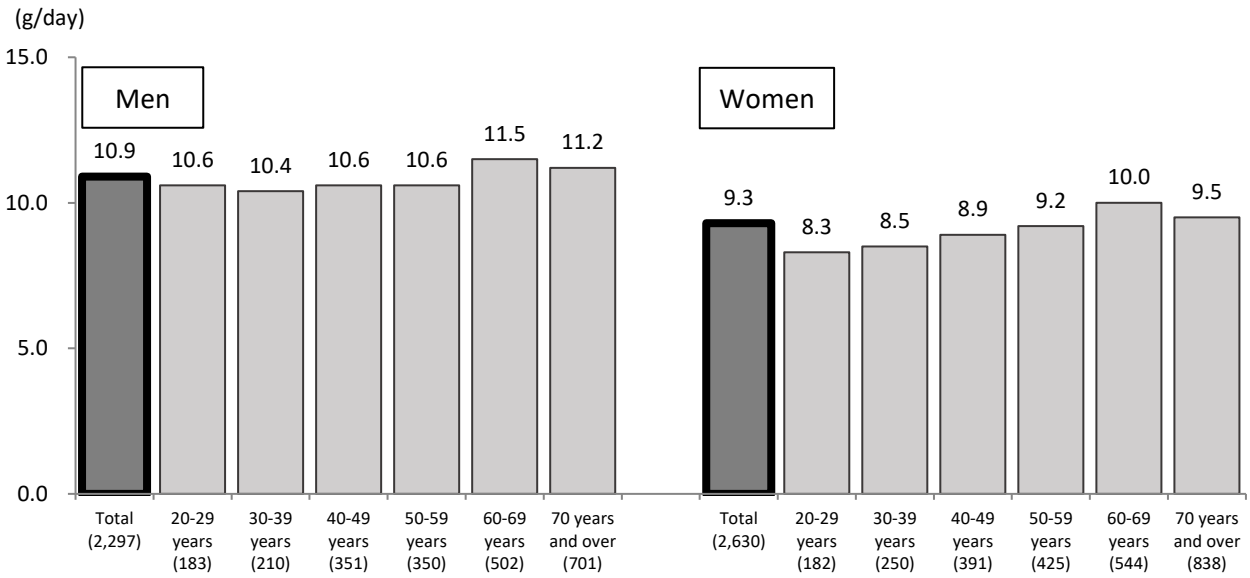


Figure 30. Mean salt intake (aged 20 years and over, based on age and sex)

2. Vegetable Intake

The mean vegetable intake was 280.5 g in all participants, 288.3 g in men, and 273.6 g in women with no significant change over the past 10 years. Those aged 20–49 years had a lower vegetable intake, while those aged 60 years and over had a higher vegetable intake in both men and women.

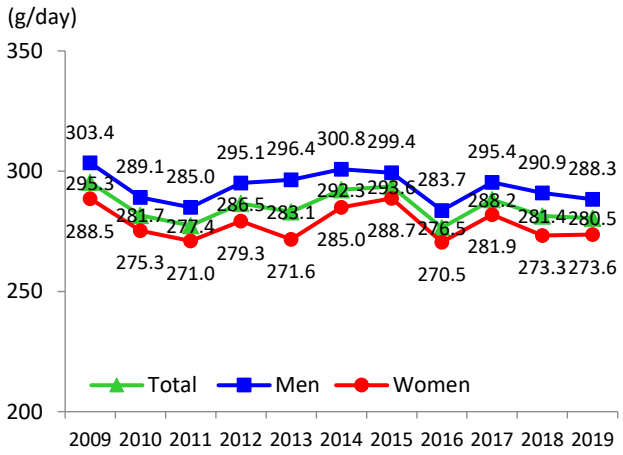


Figure 31-1. Annual changes in the mean vegetable intake (aged 20 years and older) (2009–2019)

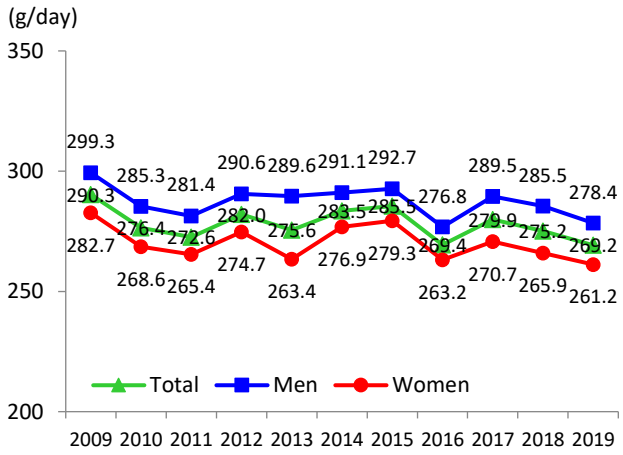
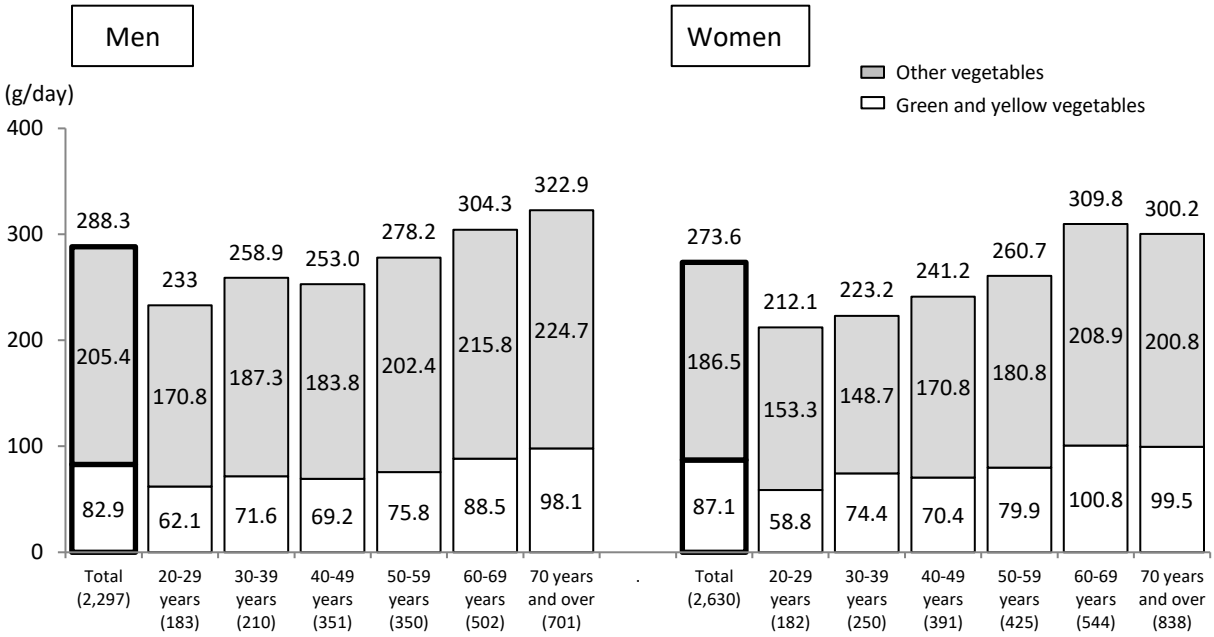


Figure 31-2. Annual changes in the age-adjusted mean vegetable intake (aged 20 years and older) (2009–2019)



Those with more than 350 g of vegetable intake (%)	30.1	19.7	21.9	24.2	28.3	33.3	36.9	26.5	14.7	14.8	19.4	24.0	35.7	31.1

Figure 32. Mean vegetable intake (aged 20 years and over, based on age and sex)

Chapter 3. Physical activity, exercise, and sleep

1. Exercise habits

The proportion of those who exercised regularly was 33.4% in men and 25.1% in women. These values have significantly decreased over the past 10 years in women but not in men. The lowest proportion was observed in men aged 40–49 years (18.5%) and women aged 30–39 years (9.4%).

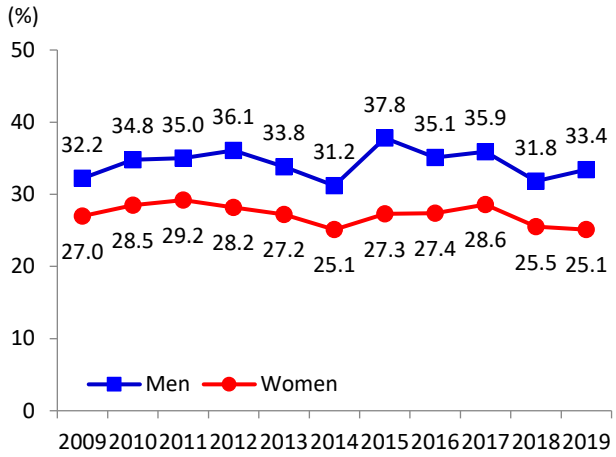


Figure 33-1. Annual changes in the proportion of those who exercised regularly (aged 20 years and over) (2009–2019)

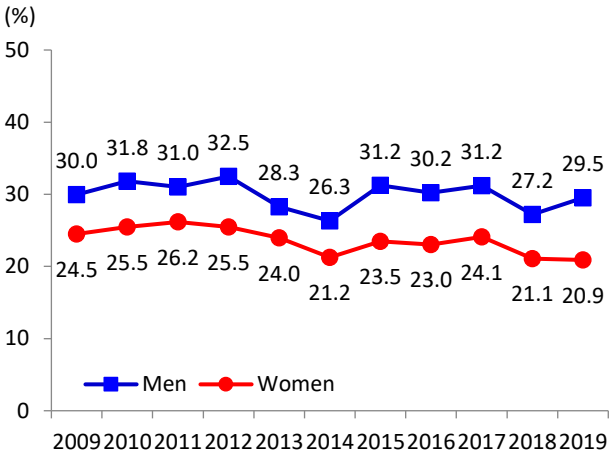


Figure 33-2. Annual changes in the age-adjusted proportion of those who exercised regularly (aged 20 years and over) (2009–2019)

* "Those who exercised regularly" refer to those who performed physical activities for at least 30 minutes per session, at least twice a week, for at least one year.

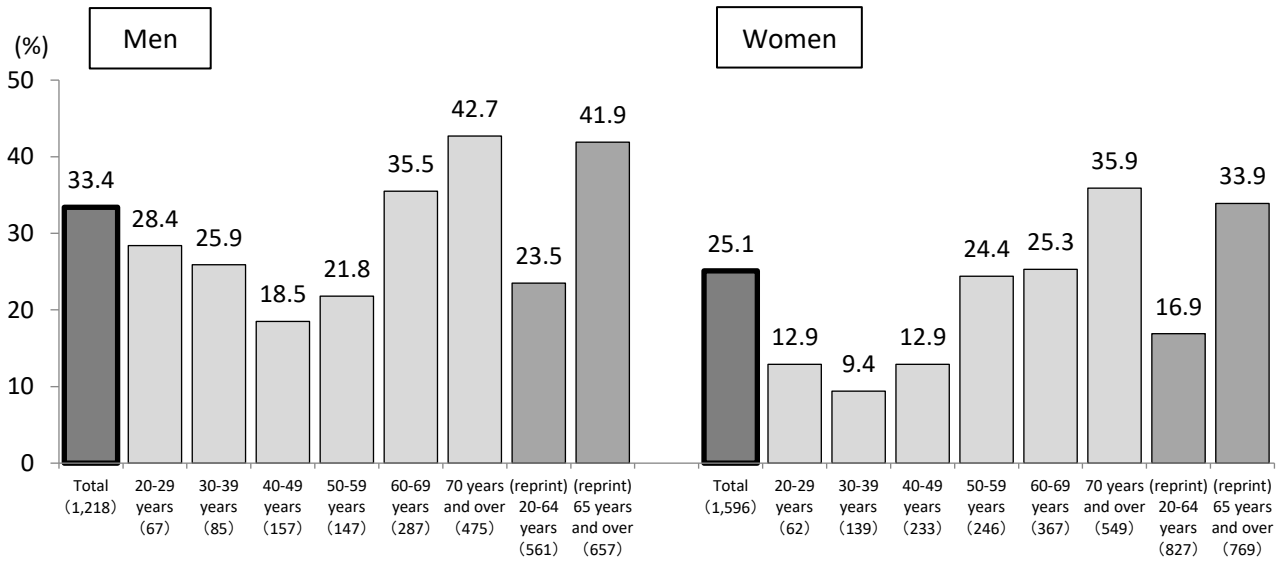


Figure 34. Proportion of those who exercised regularly (aged 20 years and over, based on age and sex)

2. Daily step counts

The mean daily step counts were 6,793 in men and 5,832 in women. These values have significantly decreased over the past 10 years in women but not in men. The mean daily step counts were 7,864 in men and 6,685 in women aged 20–64 years, and 5,396 in men and 4,658 women aged 65 years and over.

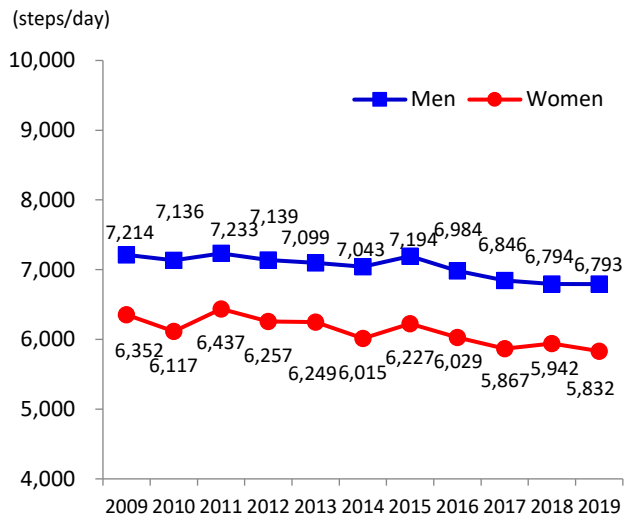


Figure 35-1. Annual changes in the mean daily step counts (aged 20 years and over) (2009–2019)

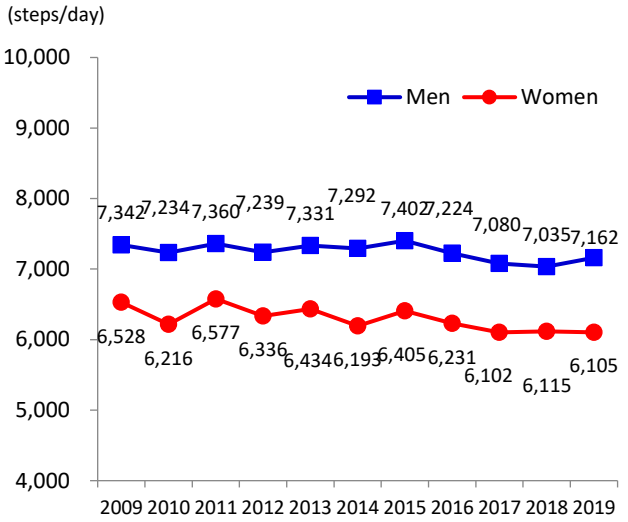


Figure 35-2. Annual changes in the age-adjusted mean daily step counts (aged 20 years and over) (2009–2019)

* Those taking less than 100 steps or 50,000 steps and over were excluded from the 2012 survey.

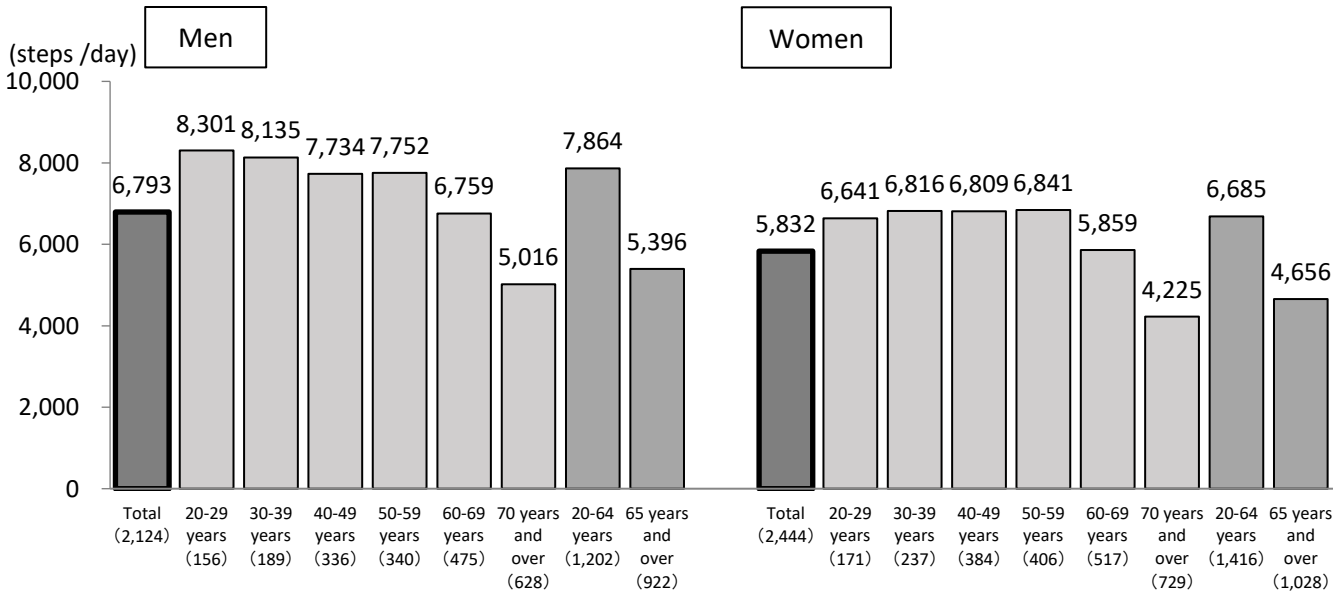


Figure 36. Mean daily step counts (aged 20 years and over, based on age and sex)

* Those taking less than 100 steps or 50,000 steps and over were excluded.

3. Sleep

For the mean sleeping duration in the previous month, the proportion of those with 6–7 hours of sleep per day was highest among both men (32.7%) and women (36.2%). The proportion of those with less than 6 hours of sleep per day was 37.5% in men and 40.6% in women. This proportion was more than 40% in men aged 30–59 years and women aged 40–69 years.

For the quality of sleep, the proportion of those who responded “I feel drowsy during the day” was highest among both men and women aged 20–59 years, while the proportion of those who responded “wake up at night” was highest among women aged 70–79 years.

For barriers to ensure sufficient sleep duration, the highest response was “using a mobile phone, texting, and/or playing video game before bedtime” for men and women aged 20–29 years, “job” for men aged 30–49 years, and “child care” for women aged 30–39 years.

* Those whose mean sleeping duration during the past month was less than 6 hours/day refers to those who responded that their mean sleeping duration during the past month was less than 5 hours/day and 5–6 hours/day.

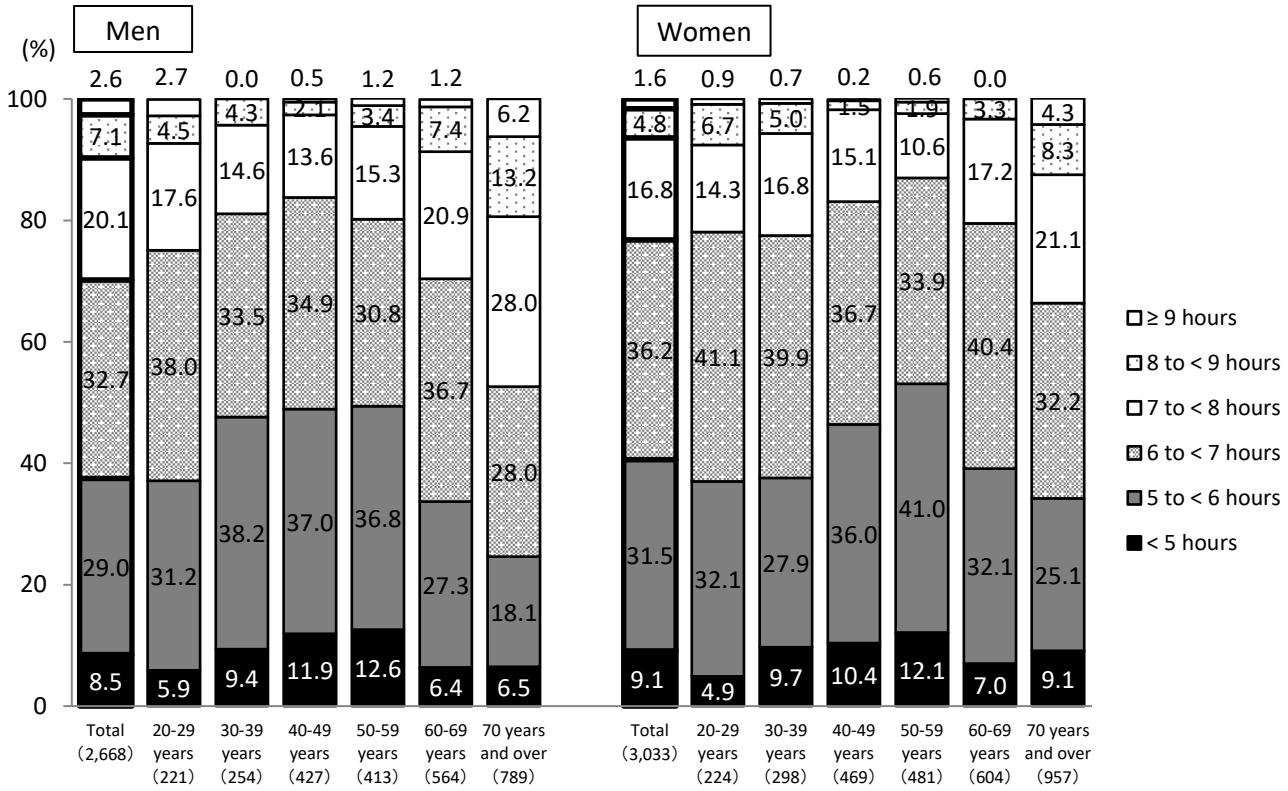


Figure 37. Proportion of mean sleep duration per day (aged 20 years and over, based on age and sex)

Table 7. The quality of sleep (aged 20 years and over, based on age and sex)

		Total		20–29years		30–39 years		40–49 years		50–59 years		60-69 years		70 years and over	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%
Men	Total	2,667	-	220	-	254	-	427	-	413	-	564	-	789	-
	Have the difficulty falling asleep	283	10.6	37	16.8	23	9.1	42	9.8	31	7.5	62	11.0	88	11.2
	Wake up at night	677	25.4	26	11.8	44	17.3	98	23.0	96	23.2	155	27.5	258	32.7
	Wake up too early and have the difficulty going back to sleep	453	17.0	13	5.9	27	10.6	57	13.3	85	20.6	120	21.3	151	19.1
	Have insufficient sleeping duration	462	17.3	71	32.3	68	26.8	108	25.3	90	21.8	61	10.8	64	8.1
	Dissatisfied with quality of sleep	576	21.6	63	28.6	64	25.2	115	26.9	112	27.1	108	19.1	114	14.4
	Feel drowsy during the day	861	32.3	89	40.5	95	37.4	139	32.6	129	31.2	171	30.3	238	30.2
	Have no experience described above	851	31.9	60	27.3	85	33.5	124	29.0	119	28.8	188	33.3	275	34.9
Women	Total	3,035	-	225	-	298	-	468	-	480	-	606	-	958	-
	Have the difficulty falling asleep	509	16.8	48	21.3	54	18.1	45	9.6	60	12.5	94	15.5	208	21.7
	Wake up at night	786	25.9	39	17.3	75	25.2	90	19.2	113	23.5	157	25.9	312	32.6
	Wake up too early and have the difficulty going back to sleep	474	15.6	16	7.1	32	10.7	40	8.5	62	12.9	105	17.3	219	22.9
	Have insufficient sleeping duration	601	19.8	81	36.0	84	28.2	126	26.9	128	26.7	96	15.8	86	9.0
	Dissatisfied with quality of sleep	667	22.0	66	29.3	97	32.6	124	26.5	121	25.2	121	20.0	138	14.4
	Feel drowsy during the day	1,121	36.9	105	46.7	128	43.0	197	42.1	190	39.6	195	32.2	306	31.9
	Have no experience described above	910	30.0	60	26.7	76	25.5	144	30.8	144	30.0	200	33.0	286	29.9

* The total breakdown is not 100% because multiple answers are allowed.

* The shaded cells show the most selected point for each age category.

Table 8. The barriers to sufficient sleep duration, (aged 20 years and over, based on age and sex)

		Total		20–29years		30–39 years		40–49 years		50–59 years		60–69 years		70 years and over	
		n	%	n	%	n	%	n	n	%	n	%	n	%	n
Men	Total	2,663	-	220	-	254	-	428	-	412	-	563	-	786	-
	Job	610	22.9	75	34.1	107	42.1	166	38.8	148	35.9	80	14.2	34	4.3
	Housework	41	1.5	2	0.9	11	4.3	13	3.0	6	1.5	7	1.2	2	0.3
	Child care	45	1.7	5	2.3	17	6.7	20	4.7	2	0.5	0	0.0	1	0.1
	Care, except for child care	20	0.8	0	0.0	0	0.0	2	0.5	4	1.0	5	0.9	9	1.1
	Health status	321	12.1	13	5.9	15	5.9	36	8.4	44	10.7	72	12.8	141	17.9
	Commuting time	105	3.9	19	8.6	13	5.1	30	7.0	29	7.0	10	1.8	4	0.5
	Sleep environment, such as noise and lighting	115	4.3	13	5.9	10	3.9	21	4.9	21	5.1	21	3.7	29	3.7
	Using a mobile phone, texting, and/or playing video game before bedtime	324	12.2	95	43.2	68	26.8	78	18.2	44	10.7	25	4.4	14	1.8
	Other	337	12.7	21	9.5	17	6.7	50	11.7	47	11.4	93	16.5	109	13.9
	None	1,257	47.2	57	25.9	78	30.7	141	32.9	171	41.5	314	55.8	496	63.1
Women	Total	3,034	-	225	-	298	-	469	-	481	-	603	-	958	-
	Job	430	14.2	63	28.0	57	19.1	107	22.8	109	22.7	63	10.4	31	3.2
	Housework	394	13.0	9	4.0	70	23.5	135	28.8	91	18.9	57	9.5	32	3.3
	Child care	201	6.6	28	12.4	92	30.9	67	14.3	7	1.5	5	0.8	2	0.2
	Care, except for child care	70	2.3	0	0.0	3	1.0	2	0.4	14	2.9	30	5.0	21	2.2
	Health status	338	11.1	17	7.6	19	6.4	41	8.7	57	11.9	57	9.5	147	15.3
	Commuting time	57	1.9	24	10.7	7	2.3	13	2.8	7	1.5	5	0.8	1	0.1
	Sleep environment, such as noise and lighting	185	6.1	11	4.9	26	8.7	33	7.0	40	8.3	29	4.8	46	4.8
	Using a mobile phone, texting, and/or playing video game before bedtime	370	12.2	96	42.7	80	26.8	88	18.8	55	11.4	35	5.8	16	1.7
	Other	497	16.4	19	8.4	28	9.4	52	11.1	85	17.7	134	22.2	179	18.7
	None	1,324	43.6	52	23.1	79	26.5	155	33.0	177	36.8	304	50.4	557	58.1

* The total breakdown is not 100% because multiple answers are allowed.

* The shaded cells show the most selected point for each age category.

Chapter 4. Alcohol consumption and smoking status

1. Alcohol consumption

The proportion of those who consumed alcohol at a level that increases the risk of lifestyle-related diseases was 14.9% in men and 9.1% in women. The proportion has significantly increased over the past 9 years (except for 2013 without survey) in women but not in men. The highest proportion was observed in men aged 40–49 years (21.0%) and women (16.8%) aged 50–59 years.

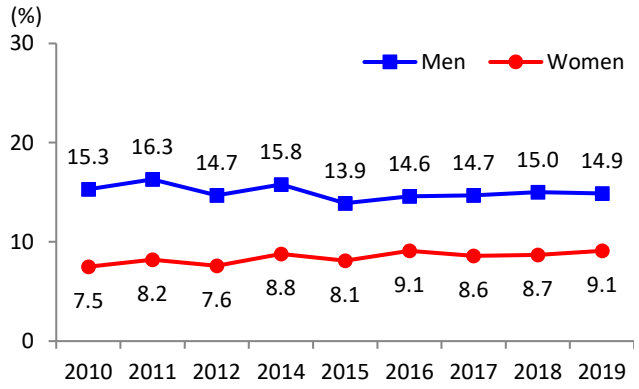


Figure 38-1. Annual changes in the proportion of those who consumed alcohol at a level that increases the risk of lifestyle-related diseases (aged 20 years and over) (2010 to 2019)

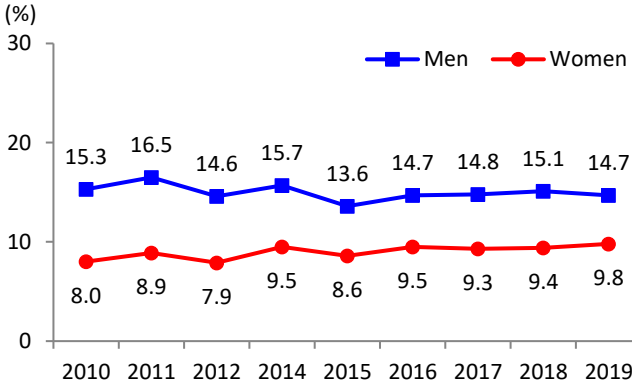


Figure 38-2. Annual changes in the age-adjusted proportion of those who consumed alcohol at a level that increases the risk of lifestyle-related diseases (aged 20 years and over) (2010 to 2019)

* No survey was conducted in 2013.
* "Those who consumed alcohol at a level that increases the risk of lifestyle-related diseases" refer to men and women who consumed 40 g and more and 20 g or more of pure alcohol daily, respectively. This included:
(1) Men who consumed 360 mL or more of sake every day, 360 mL or more 5 to 6 times a week, 540 mL or more 3 to 4 times a week, 900 mL or more once or twice a week, or 900 mL or more 1 to 3 times a month.
(2) Women who consumed 180 mL or more of sake every day, 180 mL or more 5 to 6 times a week, 180 mL or more 3 to 4 times a week, 540 mL or more once or twice a week, or 900 mL or more 1 to 3 times a month.

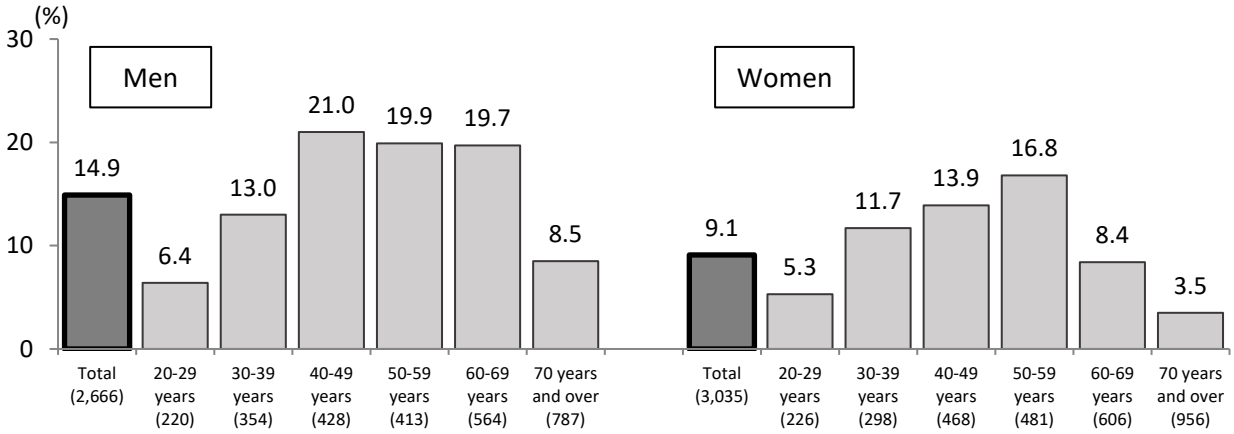


Figure 39. Proportion of those who consumed alcohol at a level that increases the risk of lifestyle-related diseases (aged 20 years and over, based on age and sex)

2. Smoking status

The proportion of regular smokers was 16.7% in all participants, 27.1% in men, and 7.6% in women. The proportion has significantly decreased over the past 10 years in both sexes. The highest proportion was observed in men aged 30–69 years (>30%).

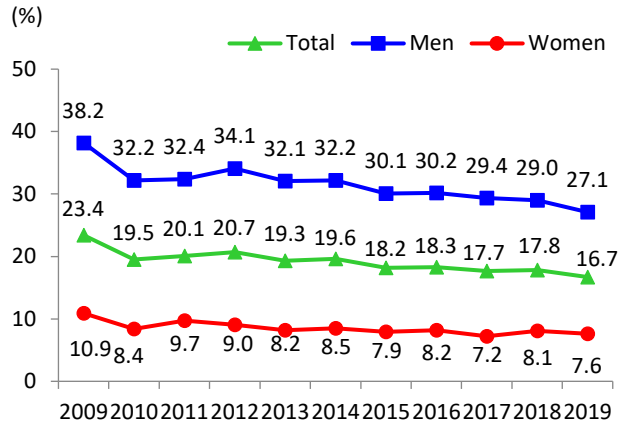


Figure 40-1. Annual changes in the proportion of regular smokers (aged 20 years and over) (2009–2019)

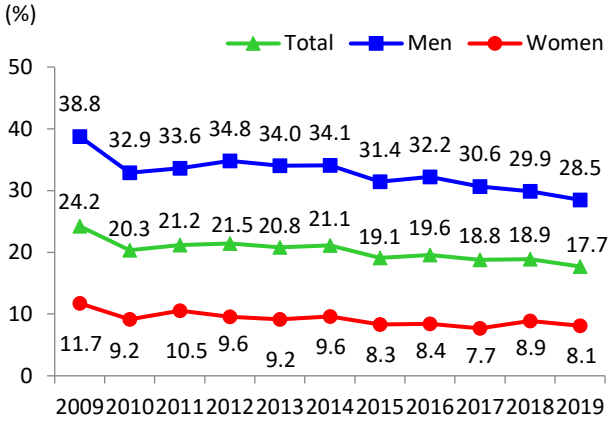


Figure 40-2. Annual changes in the age-adjusted proportion of regular smokers (aged 20 years and over) (2009–2019)

* "Regular smokers" refer to those who reported smoking every day or sometimes (after 2013), smoking every day or sometimes in the past month (in respondents who reported smoking cigarettes) (from 2011 to 2012), and smoking (or had smoked) 100 cigarettes or more in a total or 6 months or longer (from 2009 to 2010).

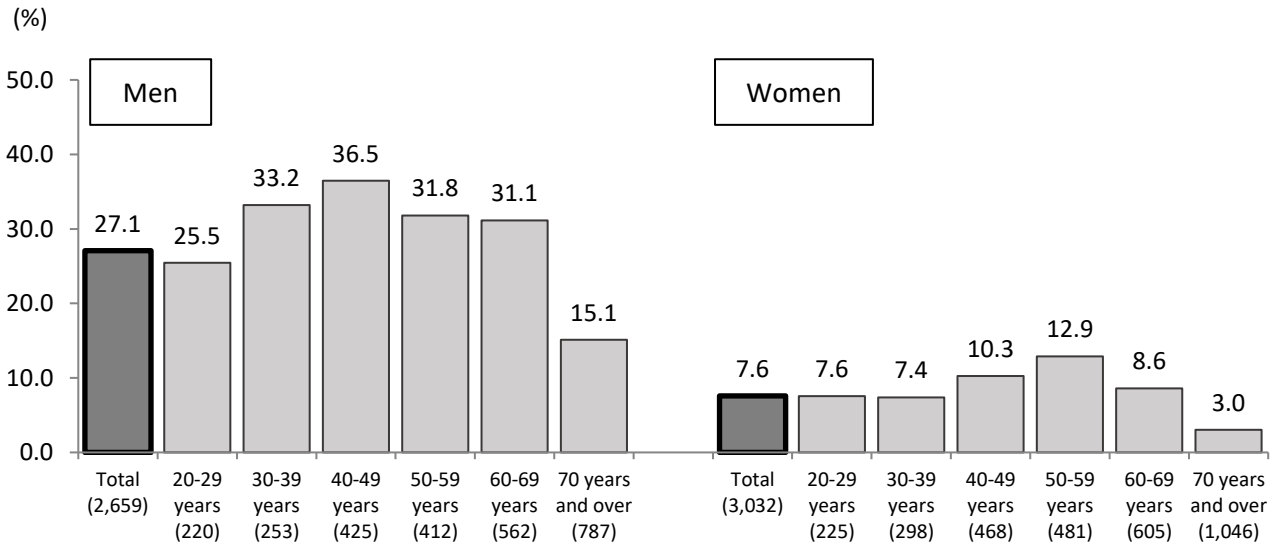


Figure 41. Proportion of regular smokers (aged 20 years and over, based on age and sex)

With regard to the types of tobacco products, the proportion of those who smoked “cigarettes” among regular smokers was 79.0% in men and 77.8% in women, while the proportion of those who smoked “heated tobacco products” was 27.2% in men and 25.2% in women.
With regard to the combination of types of tobacco products, the proportion of regular smokers who smoked “only cigarettes”, “only heated tobacco products”, and “both cigarettes and heated tobacco products” was 71.8%, 20.3%, and 6.9% in men and 72.6%, 20.4%, and 4.8% in women, respectively.

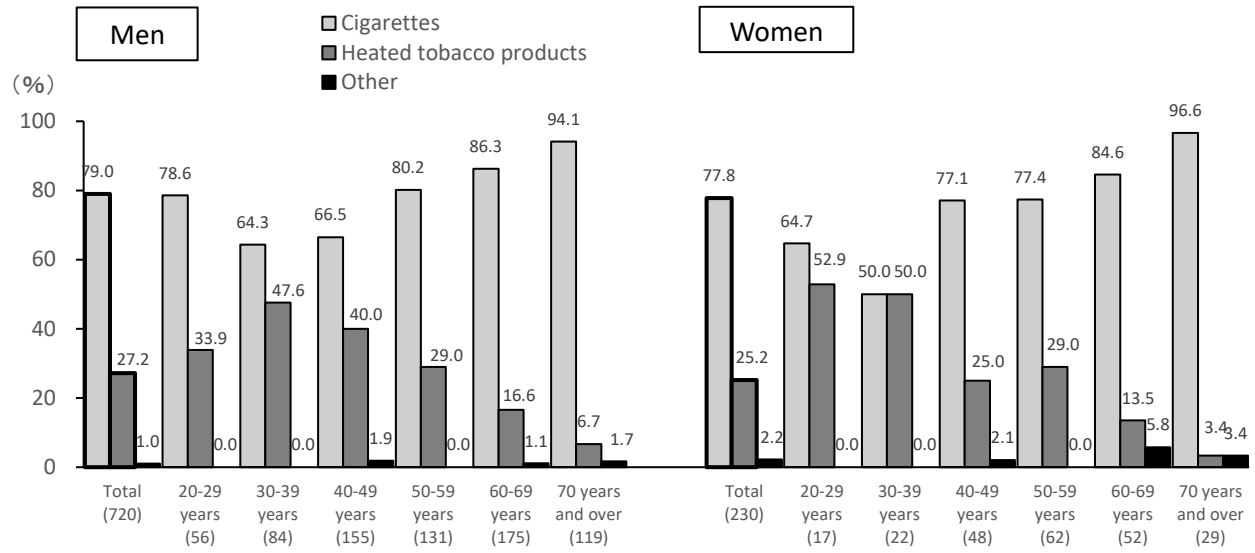


Figure 42. Types of tobacco products smoked by regular smokers (aged 20 years and over, based on age and sex)
* “Regular smokers” refer to those who reported smoking every day or sometimes.
* Multiple answers allowed from “cigarettes”, “heated tobacco products”, and “other”.

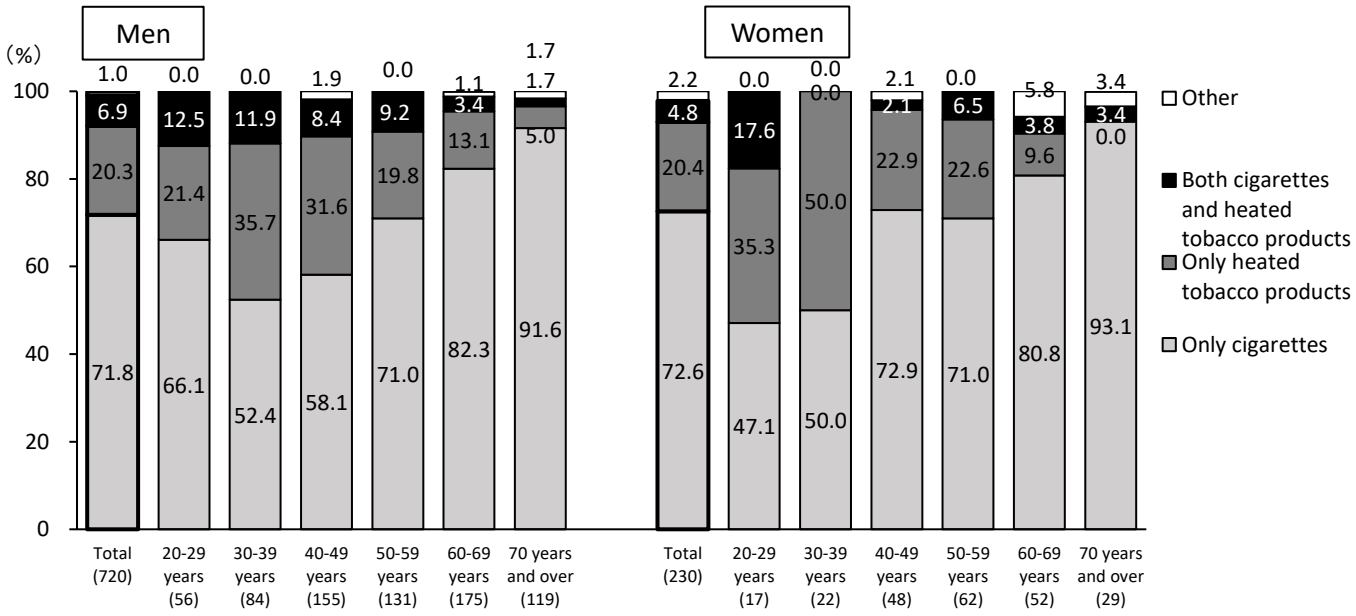


Figure 43. Combination of types of tobacco products smoked by regular smokers (aged 20 years and over, based on age and sex)
* “Both cigarettes and heated tobacco products” refer to those who reported smoking both “cigarettes” and “heated tobacco products.”

3. Willingness to quit smoking

Among regular smokers, the proportion of those willing to quit smoking was 26.1% in all participants, 24.6% in men, and 30.9% in women. This proportion has significantly decreased over the past 10 years in men, but not in women.

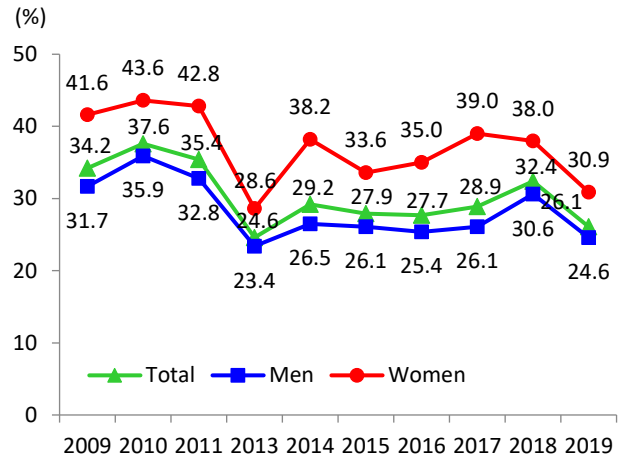


Figure 44-1. Annual changes in the proportion of those willing to quit smoking among regular smokers (aged 20 years and over) (2009–2019)

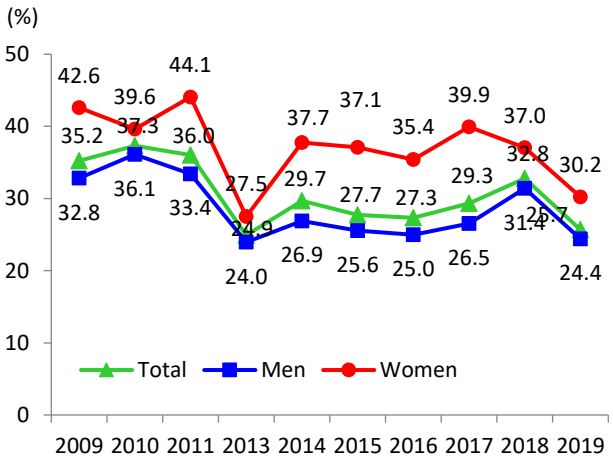


Figure 44-2. Annual changes in the age-adjusted proportion of those willing to quit smoking among regular smokers (aged 20 years and over) (2009–2019)

* No survey was conducted in 2012.

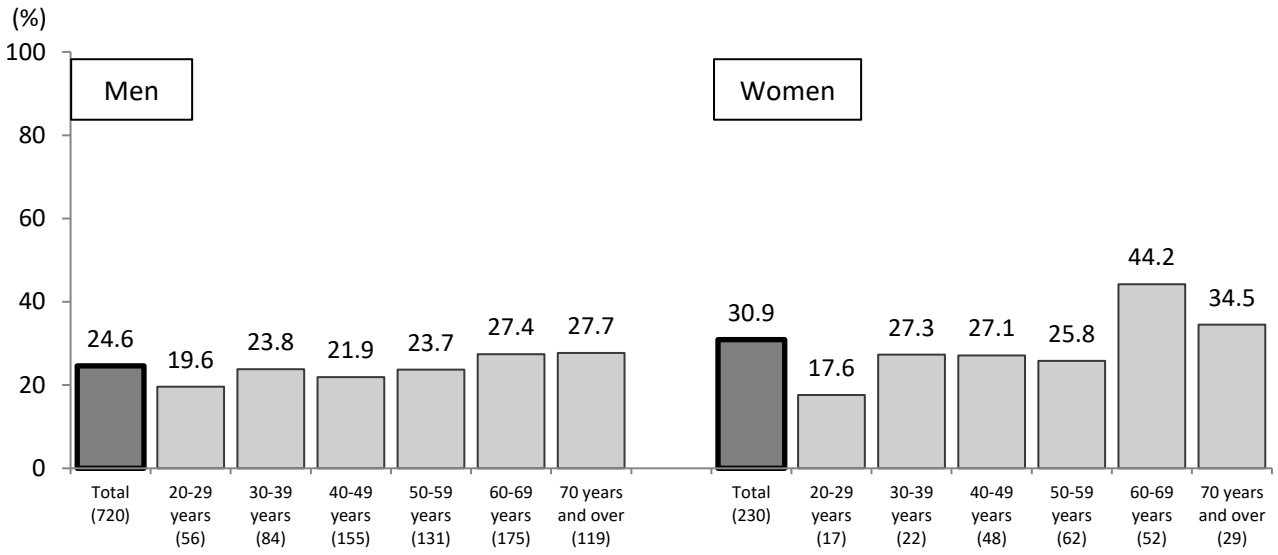


Figure 45. Proportion of those willing to quit smoking among regular smokers (aged 20 years and over, based on age and sex)

4. Passive smoking

With regard to places, the proportion of participants who were exposed to passive smoking in the past month (except for regular smokers) was highest in “restaurants” (29.6%), followed by “amusement places” and “street” (27.1%). The proportion has significantly decreased for all the places investigated across the surveys from 2003 to 2019.

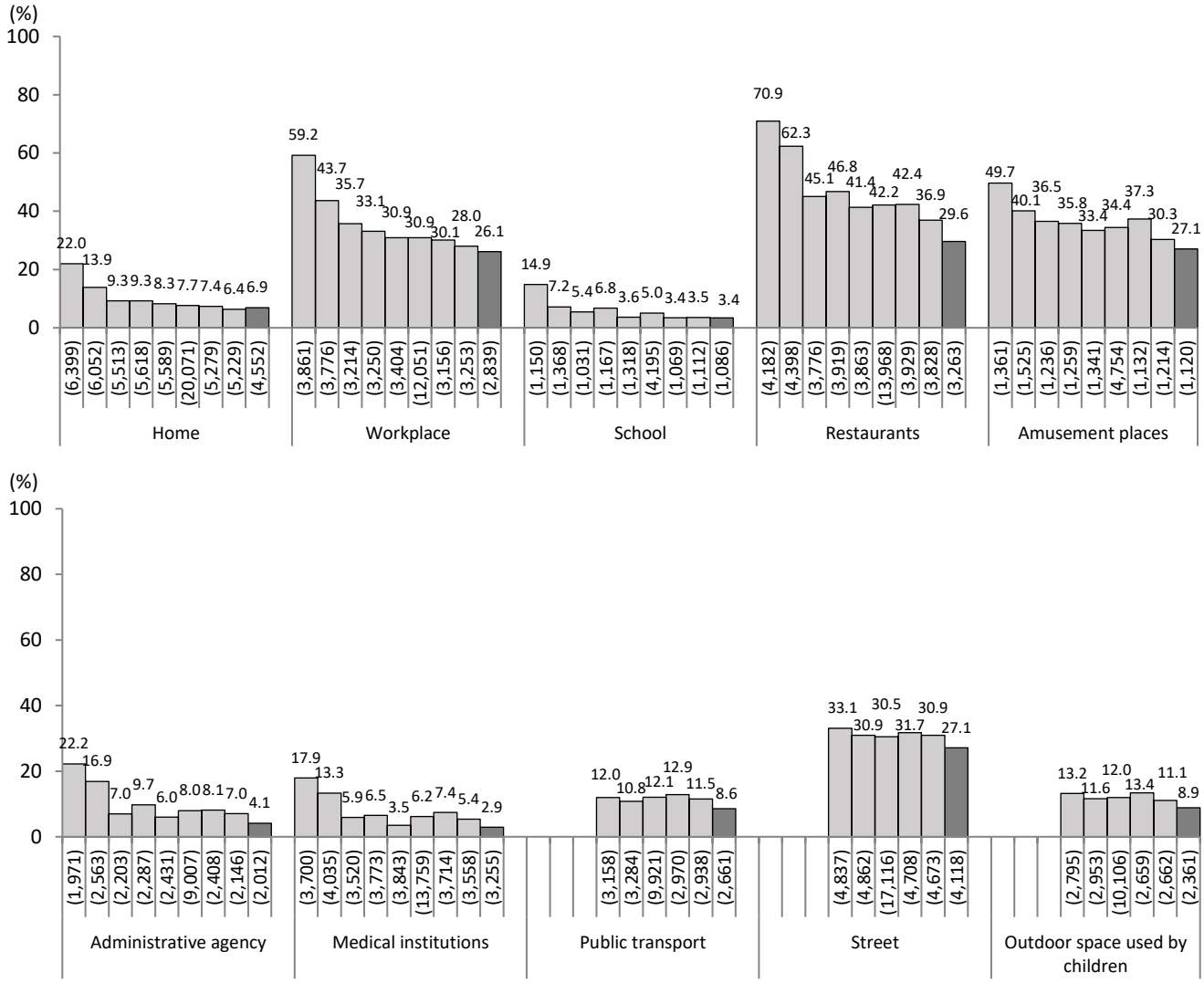


Figure 35. Proportion of those exposed to passive smoking (aged 20 years and over, except for regular smokers) (2003, 2008, 2011, 2013, 2015, 2016, 2017, 2018, and 2019).

* Results of 2003, 2008, 2011, 2013, 2015, 2016, 2017, 2018, and 2019 surveys are shown (from left to right) for all places, except for “public transport”, “street”, and “outdoor space used by children”, for which, results of 2013, 2015, 2016, 2017, 2018, and 2019 surveys are shown.
* “Regular smokers” refer to those who reported smoking every day or sometimes.
* “Those exposed to passive smoking” refer to those exposed to passive smoking every day at home or once a month or more out of home.
* Those who worked in schools, restaurants, and amusement places and were exposed to passive smoking responded “workplace”.
* The specific place or occasion in which the respondents were exposed to passive smoking was unknown.

Chapter 5. Dental health (oral health)

1. Dental health (oral health)

The proportion of participants who did not have the difficulty of chewing any food items was 75.0% in total participants when compared with the findings of 2009, 2013, 2015, 2017, and 2019 surveys. The proportion has significantly increased among all age categories.

Regarding oral status while eating, the proportion of those with the difficulty of chewing by both sides of the back teeth was more than 40% in all participants, 45.8% in individuals aged 60 to 69 years, and 43.3% in individuals aged 70 years and over. The proportion of those who reported the difficulty of chewing hard food items compared to half a year ago, suffocation while drinking tea and soups, and dry mouth was highest in individualsa aged 70 years and over and the values were 36.6%, 27.2%, and 25.7%, respectively.

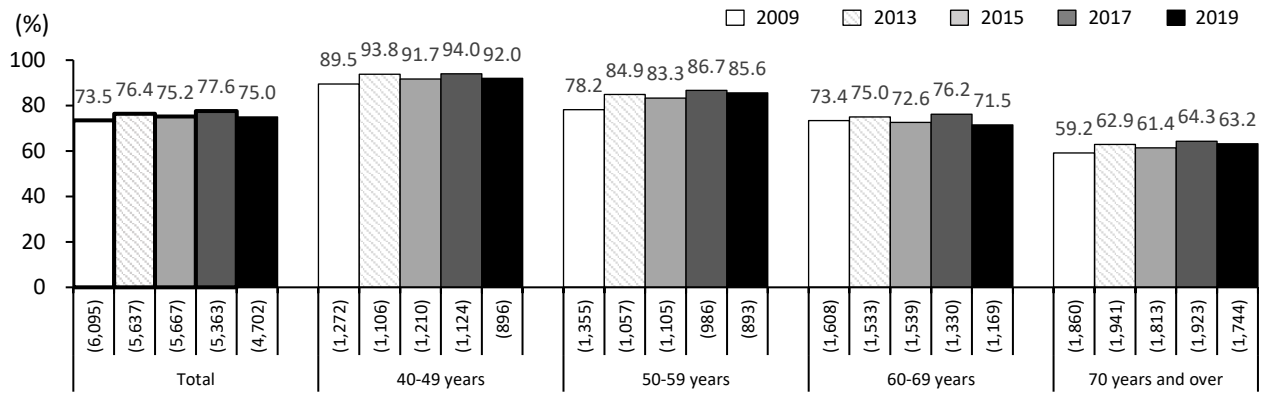


Figure 47. Annual changes in the proportion of those without the difficulty of chewing any food items (aged 40 years and over, total of men and women, based on age) (2009, 2013, 2015, 2017, and 2019)

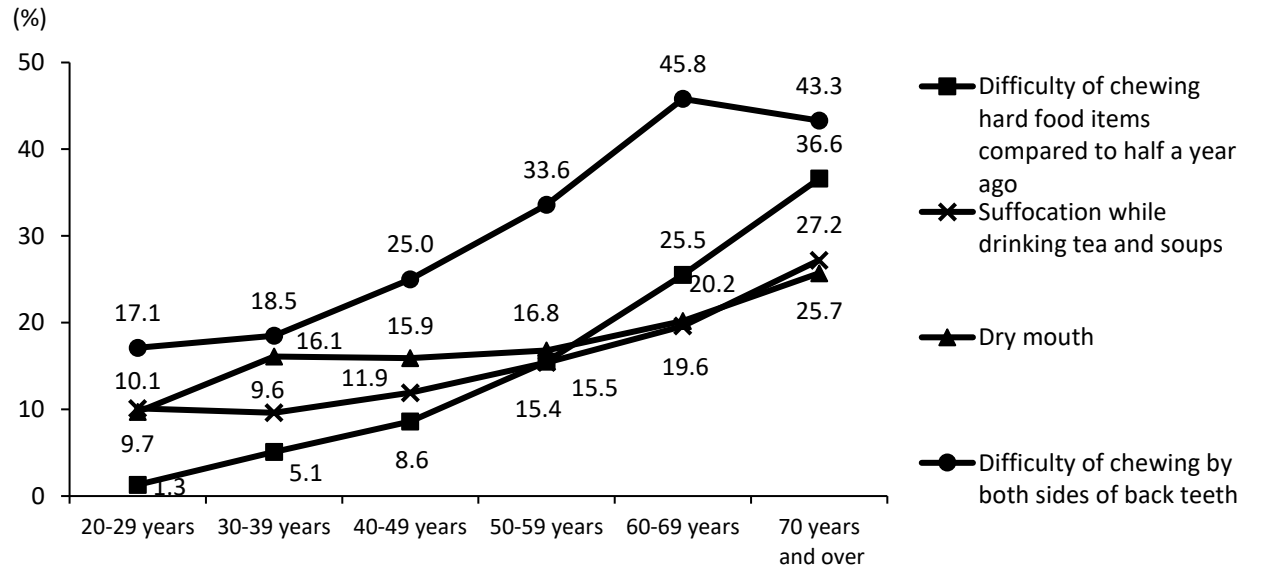


Figure 48. Oral status while eating (aged 20 years and over, total of men and women, based on age) (2009, 2013, 2015, 2017, and 2019)

*The proportion of those who reported "the difficulty of chewing hard food items compared to half a year ago", "suffocation while drinking tea and soups", "dry mouth", and "the difficulty of chewing by both sides of back teeth"

Chapter 6. Community Ties

1. Community Ties

The proportion of those who agreed to “people around here are willing to help each other” was 50.1%, with no significant difference when compared with the findings of 2011, 2015, and 2019 surveys. The proportion of those who agreed to “there is a strong bond between the community and myself” was 40.2%. These values tended to be higher in the older age groups.

For social activities, the proportion of individuals who participated in community activities was highest among both men (42.8%) and women (43.4%). The propotion of individulas who participated in volunteer activities, sports activities, avocational activities, and other acitivities was 20%.

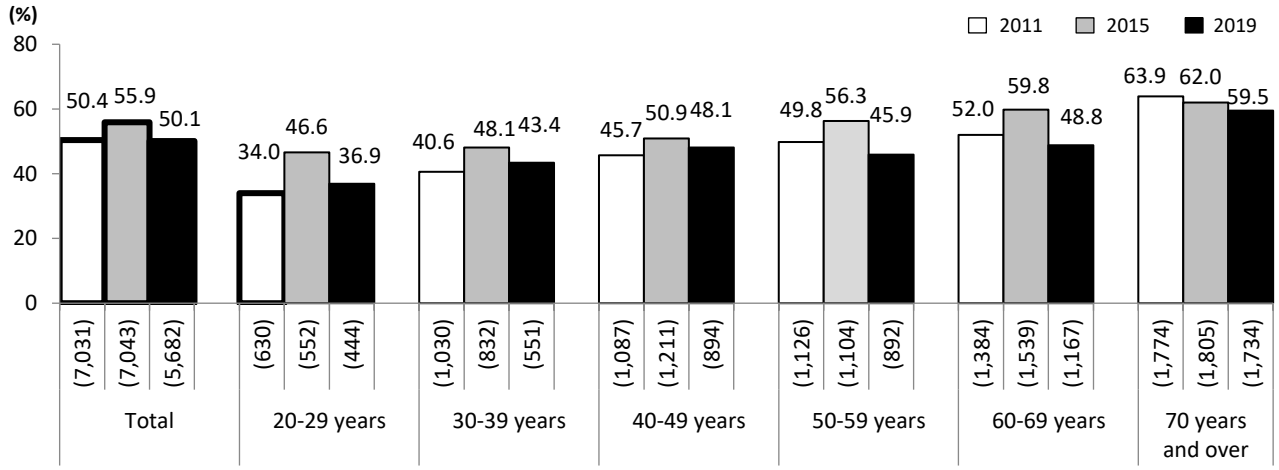


Figure 49. Proportion of those who thought “people around here are willing to help each other” in 2011, 2015, and 2019 (aged 20 years and over, based on age, total of men and women).

Table 9. Community Ties (aged 20 years and over, based on age, total of men and women).

		Total		20–29 years		30–39 years		40–49 years		50–59 years		60–69 years		70 years and over	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%
People around here are willing to help each other	Total	5,682	100.0	444	100.0	551	100.0	894	100.0	892	100.0	1,167	100.0	1,734	100.0
	Agree	2,844	50.1	164	36.9	239	43.4	430	48.1	409	45.9	570	48.8	1,032	59.5
	Strongly agree	410	7.2	18	4.1	28	5.1	49	5.5	35	3.9	65	5.6	215	12.4
	Somewhat agree	2,434	42.8	146	32.9	211	38.3	381	42.6	374	41.9	505	43.3	817	47.1
	Neither	2,002	35.2	179	40.3	218	39.6	343	38.4	346	38.8	431	36.9	485	28.0
	Disagree	836	14.7	101	22.7	94	17.1	121	13.5	137	15.4	166	14.2	217	12.5
	Somewhat disagree	506	8.9	45	10.1	46	8.3	69	7.7	88	9.9	107	9.2	151	8.7
	Strongly disagree	330	5.8	56	12.6	48	8.7	52	5.8	49	5.5	59	5.1	66	3.8
There is a strong bond between the community and myself	Total	5,682	100.0	444	100.0	551	100.0	894	100.0	892	100.0	1,167	100.0	1,734	100.0
	Agree	2,283	40.2	103	23.2	159	28.9	299	33.4	323	36.2	460	39.4	939	54.2
	Strongly agree	383	6.7	14	3.2	24	4.4	34	3.8	26	2.9	65	5.6	220	12.7
	Somewhat agree	1,900	33.4	89	20.0	135	24.5	265	29.6	297	33.3	395	33.8	719	41.5
	Neither	2,162	38.0	194	43.7	234	42.5	374	41.8	345	38.7	469	40.2	546	31.5
	Disagree	1,237	21.8	147	33.1	158	28.7	221	24.7	224	25.1	238	20.4	249	14.4
	Somewhat disagree	752	13.2	73	16.4	82	14.9	124	13.9	146	16.4	154	13.2	173	10.0
	Strongly disagree	485	8.5	74	16.7	76	13.8	97	10.9	78	8.7	84	7.2	76	4.4

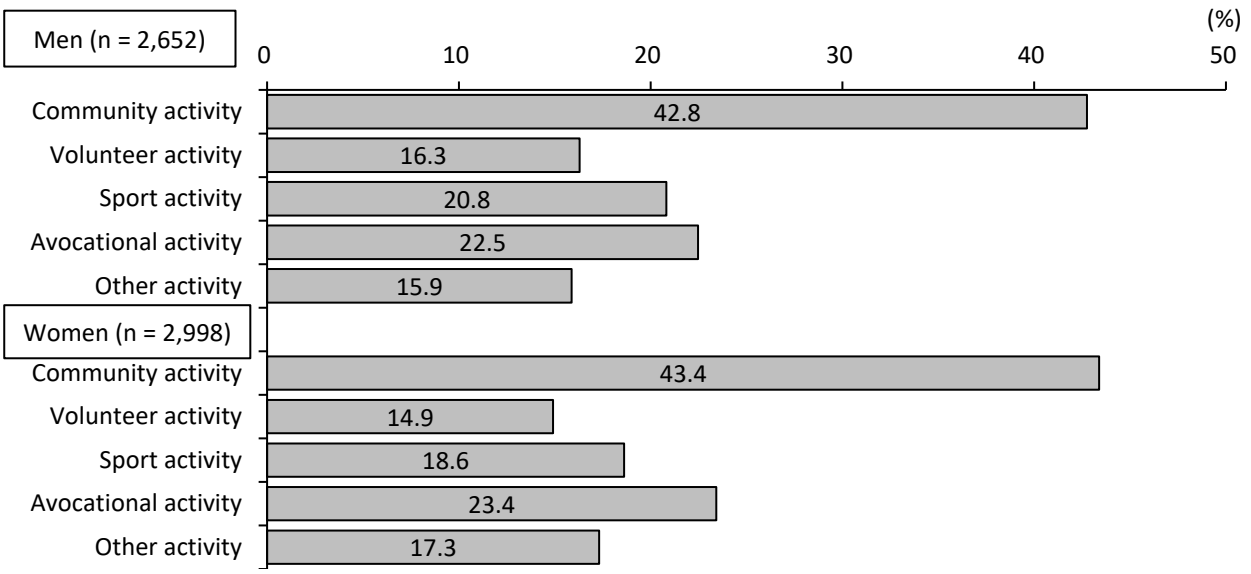


Figure 50. Proportion of those who participated in social activities (aged 20 years and over, based on sex).

Table 10. Proportion of those who participated in social activities (aged 20 years and over, based on age and sex).

			Total		20–29 years		30–39 years		40–49 years		50–59 years		60–69 years		70 years and over	
			%	n	%	n	%	n	%	%	n	%	n	%	n	%
Community activities	Men	Total	2,652	100	221	100	252	100	424	100	413	100	561	100	781	100
		Participate	1,134	42.8	38	17.2	86	34.1	176	41.5	177	42.9	272	48.5	385	49.3
		Not participate	1,518	57.2	183	82.8	166	65.9	248	58.5	236	57.1	289	51.5	396	50.7
	Women	Total	2,998	100	223	100	298	100	464	100	478	100	598	100	937	100
		Participate	1,301	43.4	33	14.8	113	37.9	224	48.3	205	42.9	298	49.8	428	45.7
		Not participate	1,697	56.6	190	85.2	185	62.1	240	51.7	273	57.1	300	50.2	509	54.3
Volunteer activities	Men	Total	2,652	100	221	100	252	100	424	100	413	100	561	100	781	100
		Participate	432	16.3	17	7.7	33	13.1	58	13.7	59	14.3	99	17.6	166	21.3
		Not participate	2,220	83.7	204	92.3	219	86.9	366	86.3	354	85.7	462	82.4	615	78.7
	Women	Total	2,998	100	223	100	298	100	464	100	478	100	598	100	937	100
		Participate	447	14.9	20	9.0	28	9.4	55	11.9	72	15.1	108	18.1	164	17.5
		Not participate	2,551	85.1	203	91.0	270	90.6	409	88.1	406	84.9	490	81.9	773	82.5
Sports activities	Men	Total	2,652	100	221	100	252	100	424	100	413	100	561	100	781	100
		Participate	552	20.8	61	27.6	50	19.8	93	21.9	72	17.4	121	21.6	155	19.8
		Not participate	2,100	79.2	160	72.4	202	80.2	331	78.1	341	82.6	440	78.4	626	80.2
	Women	Total	2,998	100	223	100	298	100	464	100	478	100	598	100	937	100
		Participate	558	18.6	25	11.2	41	13.8	80	17.2	78	16.3	128	21.4	206	22.0
		Not participate	2,440	81.4	198	88.8	257	86.2	384	82.8	400	83.7	470	78.6	731	78.0
Avocational activities	Men	Total	2,652	100	221	100	252	100	424	100	413	100	561	100	781	100
		Participate	596	22.5	63	28.5	49	19.4	81	19.1	78	18.9	134	23.9	191	24.5
		Not participate	2,056	77.5	158	71.5	203	80.6	343	80.9	335	81.1	427	76.1	590	75.5
	Women	Total	2,998	100	223	100	298	100	464	100	478	100	598	100	937	100
		Participate	702	23.4	46	20.6	45	15.1	68	14.7	109	22.8	153	25.6	281	30.0
		Not participate	2,296	76.6	177	79.4	253	84.9	396	85.3	369	77.2	445	74.4	656	70.0
Other actitivities	Men	Total	2,652	100	221	100	252	100	424	100	413	100	561	100	781	100
		Participate	421	15.9	27	12.2	34	13.5	53	12.5	59	14.3	100	17.8	148	19.0
		Not participate	2,231	84.1	194	87.8	218	86.5	371	87.5	354	85.7	461	82.2	633	81.0
	Women	Total	2,998	100	223	100	298	100	464	100	478	100	598	100	937	100
		Participate	519	17.3	25	11.2	36	12.1	57	12.3	71	14.9	111	18.6	219	23.4
		Not participate	2,479	82.7	198	88.8	262	87.9	407	87.7	407	85.1	487	81.4	718	76.6

*"Participating" refer to those who responded participating "a few times a year", "1-3 times per month", "once a week ", "2-3 times per week", or "≥4 times per week".

< Appendix > Status of intake by nutrients/food groups

1. Intake of nutrients

Table 11. Age-dependent nutrient intake

		Total	1- 6 years	7-14 years	15-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-79 years	80 years and over	(reprint) 20 years and over	(reprint) 65-74 years	(reprint) 75 years and over
Participants (n)		5,865	235	454	249	365	460	742	775	1,046	1,042	497	4,927	1,217	952
Energy	kcal	1,903	1,247	1,945	2,219	1,900	1,859	1,939	1,918	1,972	1,945	1,750	1,915	1,978	1,822
Protein	g	71.4	44.6	71.5	80.6	70.6	67.6	72.2	70.2	75.2	76.3	65.8	72.2	76.7	70.0
Animal protein	g	40.1	26.0	42.4	49.4	41.7	37.8	41.9	38.4	41.1	41.9	35.1	40.1	42.0	37.9
Fat	g	61.3	40.6	65.0	76.4	64.2	62.8	64.1	63.1	62.1	59.9	50.6	61.2	62.1	53.6
Animal fat	g	32.4	22.8	36.8	43.0	34.3	31.7	34.3	32.2	32.3	31.1	26.6	31.9	31.6	28.4
Saturated fatty acid	g	18.30	14.04	22.31	23.76	19.49	18.69	19.10	18.43	17.86	17.17	14.57	17.86	17.57	15.56
Monounsaturated fatty acid	g	22.50	14.13	22.84	29.18	24.20	23.63	23.97	23.58	22.71	21.58	18.09	22.53	22.58	19.18
Omega-6 fatty acid	g	10.50	6.23	9.89	12.47	10.70	10.80	11.16	11.22	10.95	10.39	8.86	10.66	11.01	9.18
Omega-3 fatty acid	g	2.36	1.22	1.94	2.12	2.14	2.17	2.23	2.33	2.67	2.81	2.33	2.46	2.85	2.50
Cholesterol	mg	335	188	315	430	347	324	340	331	350	355	306	340	359	320
Carbohydrate	g	248.3	172.0	260.6	290.4	244.2	239.1	245.9	242.3	254.5	257.4	244.7	248.7	258.1	249.4
Dietary fiber	g	18.4	11.0	17.4	18.5	16.0	17.0	17.1	18.0	20.2	21.2	18.9	18.8	21.2	19.6
Water-soluble dietary fiber	g	3.5	2.2	3.4	3.3	2.9	3.2	3.2	3.4	4.0	4.2	3.6	3.6	4.3	3.8
Water-insoluble dietary fiber	g	11.5	6.7	10.5	10.7	9.5	10.3	10.3	11.1	13.0	13.7	12.0	11.8	13.8	12.5
Vitamin A RAE	μgRAE [1]	534	350	513	490	449	438	504	536	600	601	575	547	614	615
Vitamin D	μg	6.9	3.7	5.7	5.6	5.3	5.2	5.8	6.0	7.5	9.9	7.9	7.2	8.9	8.9
Vitamin E	mg [2]	6.7	4.0	6.0	7.0	6.2	6.3	6.4	6.8	7.3	7.6	6.5	6.9	7.7	6.8
Vitamin K	μg	240	130	199	226	202	224	226	242	272	284	238	250	292	249
Vitamin B1	mg	0.95	0.64	1.00	1.08	0.92	0.92	0.98	0.91	0.98	0.99	0.85	0.95	1.01	0.90
Vitamin B2	mg	1.18	0.80	1.24	1.22	1.09	1.05	1.10	1.13	1.26	1.33	1.16	1.19	1.30	1.24
Niacin NE	mg	30.7	17.7	28.7	33.6	29.6	29.5	31.9	30.6	32.9	32.9	28.0	31.3	33.4	29.9
Vitamin B6	mg	1.18	0.73	1.08	1.20	1.02	1.04	1.12	1.13	1.29	1.38	1.18	1.20	1.37	1.26
Vitamin B12	μg	6.3	3.5	5.8	4.7	5.4	5.2	5.2	5.8	7.3	8.1	6.8	6.5	7.6	7.9
Folic acid	μg	289	153	234	253	231	242	260	290	331	353	321	302	351	333
Pantothenic acid	mg	5.65	4.02	6.14	6.25	5.29	5.18	5.46	5.44	5.93	6.12	5.38	5.65	6.14	5.66
Vitamin C	mg	94	52	68	78	62	65	75	85	111	132	118	99	127	122
Sodium	mg	3,828	2,027	3,381	3,779	3,718	3,684	3,817	3,863	4,216	4,179	3,739	3,958	4,226	3,923
Salt equivalent	g [3]	9.7	5.2	8.6	9.6	9.4	9.4	9.7	9.8	10.7	10.6	9.5	10.1	10.7	10.0
Salt equivalent	g/1,000 kcal	5.2	4.1	4.5	4.5	5.1	5.1	5.1	5.3	5.6	5.6	5.5	5.4	5.5	5.6
Potassium	mg	2,299	1,503	2,229	2,174	1,912	1,990	2,145	2,215	2,548	2,704	2,365	2,350	2,708	2,479
Calcium	mg	505	416	639	480	435	401	442	472	536	579	509	498	563	540
Magnesium	mg	247	150	226	226	209	219	234	248	277	286	249	255	288	263
Phosphorus	mg	1,007	685	1,077	1,087	952	911	980	978	1,067	1,096	955	1,012	1,097	1,009
Iron	mg	7.6	4.2	6.5	7.4	6.8	6.8	7.1	7.6	8.6	8.9	7.8	7.9	8.9	8.2
Zinc	mg	8.4	5.4	8.9	10.1	8.5	8.1	8.5	8.3	8.6	8.5	7.7	8.4	8.7	7.9
Copper	mg	1.12	0.68	1.06	1.17	1.02	1.05	1.06	1.11	1.21	1.26	1.13	1.14	1.25	1.17
Fat-energy ratio	% [4]	28.6	28.7	29.8	30.5	30.2	30.2	29.4	29.2	28.0	27.2	25.5	28.4	27.8	26.0
Carbohydrate-energy ratio	% [4, 5]	56.3	57.1	55.3	54.9	54.7	55.1	55.6	56.1	56.5	57.0	59.4	56.4	56.6	58.6
Animal protein ratio	% [4]	54.3	56.5	58.4	59.1	57.5	54.0	55.8	52.6	53.0	53.0	51.2	53.6	53.0	52.1
Cereal-energy ratio	% [4]	39.5	38.9	40.5	43.2	43.1	42.0	41.2	39.5	37.1	37.0	40.0	39.3	36.2	39.3

[1] Abbreviation: RAE, retinol activity equivalents.
[2] Including only α-tocopherol.
[3] Salt equivalents = Na (mg) × 2.54/1,000
[4] Nutrient values are shown as the mean value per person per day.
[5] Carbohydrate-energy ratio = 100 – protein-energy ratio – fat-energy ratio.

Table 12. Age-dependent nutrient intake in male participants

		Total	1- 6 years	7-14 years	15-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-79 years	80 years and over	(reprint) 20 years and over	(reprint) 65-74 years	(reprint) 75 years and over
Participants (n)		2,782	105	250	130	183	210	351	350	502	502	199	2,297	590	421
Energy	kcal	2,118	1,304	2,047	2,515	2,199	2,081	2,172	2,188	2,177	2,131	1,944	2,141	2,168	2,008
Protein	g	77.7	47.2	74.3	88.7	80.1	74.8	79.2	77.5	80.6	81.6	71.8	78.8	81.6	75.9
Animal protein	g	44.1	28.0	43.9	54.3	47.9	42.2	46.7	42.8	44.8	45.2	38.3	44.3	45.0	41.5
Fat	g	66.4	43.2	67.4	84.4	72.9	68.0	69.7	70.1	66.2	63.6	53.1	66.3	65.6	56.4
Animal fat	g	35.7	25.1	38.1	48.9	39.5	35.1	37.4	36.1	35.5	34.0	28.2	35.2	34.4	30.6
Saturated fatty acid	g	19.68	14.92	23.27	26.31	21.90	19.64	20.34	20.10	18.88	18.19	15.27	19.14	18.54	16.28
Monounsaturated fatty acid	g	24.60	15.13	23.64	32.46	27.71	25.90	26.43	26.59	24.50	23.09	18.83	24.70	24.08	20.23
Omega-6 fatty acid	g	11.38	6.54	10.23	13.45	12.27	12.10	12.34	12.46	11.64	10.96	9.24	11.61	11.55	9.61
Omega-3 fatty acid	g	2.55	1.31	1.99	2.28	2.45	2.35	2.44	2.60	2.84	3.01	2.53	2.68	3.00	2.73
Cholesterol	mg	361	206	324	474	399	346	361	360	378	378	314	366	380	336
Carbohydrate	g	274.6	177.5	277.2	335.2	286.1	269.1	274.3	273.9	274.5	277.9	271.5	275.3	278.5	272.3
Dietary fiber	g	19.4	11.5	18.1	20.0	17.5	18.3	18.3	19.4	20.6	21.9	20.3	19.9	21.6	20.9
Water-soluble dietary fiber	g	3.6	2.3	3.5	3.4	3.0	3.3	3.3	3.6	3.9	4.3	3.8	3.7	4.2	4.0
Water-insoluble dietary fiber	g	11.8	7.1	10.8	11.2	10.1	10.9	10.7	11.7	12.9	14.0	12.7	12.2	13.7	13.2
Vitamin A RAE	μgRAE [1]	552	356	532	529	451	474	555	528	596	612	642	564	594	664
Vitamin D	μg	7.4	4.1	5.6	5.9	5.9	5.5	6.4	6.8	7.9	10.9	8.6	7.9	9.5	10.1
Vitamin E	mg [2]	7.0	4.2	6.0	7.3	6.9	6.6	6.7	7.1	7.5	7.8	6.8	7.2	7.9	7.0
Vitamin K	μg	246	132	196	237	198	228	234	245	274	302	255	258	297	270
Vitamin B1	mg	1.03	0.68	1.06	1.17	1.07	1.02	1.09	1.00	1.03	1.05	0.93	1.03	1.05	0.97
Vitamin B2	mg	1.24	0.85	1.30	1.32	1.20	1.10	1.16	1.19	1.30	1.39	1.25	1.25	1.34	1.31
Niacin NE	mg	33.6	18.6	29.8	36.8	33.6	33.0	35.4	33.9	35.6	35.4	31.0	34.5	35.8	32.9
Vitamin B6	mg	1.26	0.77	1.12	1.31	1.12	1.13	1.25	1.23	1.36	1.46	1.31	1.30	1.43	1.38
Vitamin B12	μg	6.9	4.4	5.9	4.9	6.5	5.3	5.9	6.3	8.2	8.8	7.7	7.3	8.3	8.8
Folic acid	μg	295	159	237	260	237	253	275	297	335	359	335	310	350	345
Pantothenic acid	mg	6.05	4.26	6.40	6.85	5.92	5.54	5.91	5.83	6.21	6.48	5.92	6.05	6.40	6.12
Vitamin C	mg	91	56	69	75	62	66	76	82	102	128	121	96	117	124
Sodium	mg	4,144	2,108	3,515	4,080	4,157	4,085	4,171	4,180	4,521	4,535	4,045	4,309	4,578	4,231
Salt equivalent	g [3]	10.5	5.4	8.9	10.4	10.6	10.4	10.6	10.6	11.5	11.5	10.3	10.9	11.6	10.8
Salt equivalent	g/1,000 kcal	5.1	4.1	4.4	4.2	4.9	5.1	5.0	4.9	5.4	5.5	5.4	5.2	5.5	5.5
Potassium	mg	2,387	1,588	2,307	2,280	2,080	2,100	2,269	2,290	2,569	2,764	2,536	2,439	2,724	2,621
Calcium	mg	517	446	676	504	462	395	442	471	533	585	537	503	558	561
Magnesium	mg	261	158	236	239	227	236	251	265	286	298	269	270	297	280
Phosphorus	mg	1,079	728	1,128	1,181	1,066	981	1,052	1,053	1,127	1,157	1,032	1,084	1,151	1,081
Iron	mg	8.0	4.5	6.7	7.9	7.4	7.2	7.6	8.1	8.8	9.2	8.3	8.3	9.1	8.7
Zinc	mg	9.2	5.7	9.3	11.4	9.8	9.1	9.4	9.2	9.3	9.1	8.3	9.2	9.3	8.5
Copper	mg	1.20	0.71	1.11	1.29	1.14	1.15	1.15	1.21	1.27	1.32	1.22	1.23	1.31	1.25
Fat-energy ratio	% [4]	27.8	29.2	29.5	29.8	29.5	29.0	28.4	28.3	27.1	26.3	24.3	27.4	26.9	24.8
Carbohydrate-energy ratio	% [4, 5]	57.5	56.4	55.9	56.0	55.8	56.5	56.9	57.4	58.0	58.4	60.8	57.8	58.1	60.0
Animal protein ratio	% [4]	55.0	57.2	58.1	59.1	58.0	54.3	56.7	53.3	54.1	53.3	51.4	54.3	53.4	52.5
Cereal-energy ratio	% [4]	41.1	38.8	41.3	45.8	45.6	44.7	42.4	41.6	38.9	38.4	40.8	41.0	38.2	40.2

[1] Abbreviation: RAE, retinol activity equivalents.
[2] Including only α-tocopherol.
[3] Salt equivalents = Na (mg) × 2.54/1,000
[4] Nutrient values are shown as the mean value per person per day.
[5] Carbohydrate-energy ratio = 100 – protein-energy ratio – fat-energy ratio.

Table 13. Age-dependent nutrient intake in female participants

		Total	1- 6 years	7-14 years	15-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-79 years	80 years and over	(reprint) 20 years and over	(reprint) 65-74 years	(reprint) 75 years and over	(reprint) Pregnant	(reprint) Lactating
Participants (n)		3,083	130	204	119	182	250	391	425	544	540	298	2,630	627	531	16	33
Energy	kcal	1,709	1,201	1,820	1,896	1,600	1,673	1,729	1,695	1,784	1,771	1,620	1,717	1,798	1,674	1,739	1,799
Protein	g	65.7	42.5	68.1	71.8	61.1	61.6	65.9	64.1	70.2	71.4	61.8	66.4	72.1	65.3	65.0	64.9
Animal protein	g	36.5	24.4	40.5	44.1	35.4	34.1	37.7	34.8	37.6	38.9	32.9	36.4	39.1	35.1	38.7	35.7
Fat	g	56.7	38.5	62.1	67.7	55.5	58.5	59.1	57.5	58.3	56.4	49.0	56.7	58.7	51.3	60.1	64.1
Animal fat	g	29.3	21.0	35.1	36.5	29.2	28.9	31.6	29.0	29.3	28.4	25.5	28.9	29.1	26.7	30.9	33.8
Saturated fatty acid	g	17.05	13.33	21.13	20.98	17.07	17.89	17.98	17.05	16.93	16.22	14.11	16.74	16.66	14.98	18.54	21.14
Monounsaturated fatty acid	g	20.60	13.32	21.86	25.60	20.67	21.72	21.77	21.10	21.07	20.18	17.59	20.63	21.16	18.35	20.87	23.58
Omega-6 fatty acid	g	9.71	5.98	9.48	11.40	9.13	9.70	10.10	10.21	10.32	9.86	8.60	9.84	10.50	8.83	10.44	9.77
Omega-3 fatty acid	g	2.18	1.14	1.88	1.94	1.82	2.01	2.05	2.11	2.51	2.61	2.20	2.27	2.71	2.33	2.67	1.82
Cholesterol	mg	312	174	304	381	295	305	322	308	324	334	300	317	339	306	270	329
Carbohydrate	g	224.6	167.5	240.2	241.4	202.1	213.9	220.4	216.2	236.1	238.3	226.9	225.5	238.8	231.2	226.8	232.5
Dietary fiber	g	17.5	10.6	16.6	17.0	14.6	15.9	16.0	16.8	19.8	20.5	18.0	18.0	20.9	18.6	15.3	16.1
Water-soluble dietary fiber	g	3.5	2.1	3.2	3.1	2.8	3.1	3.1	3.3	4.0	4.2	3.5	3.6	4.3	3.7	3.0	3.0
Water-insoluble dietary fiber	g	11.2	6.4	10.1	10.2	8.8	9.9	10.0	10.7	13.0	13.5	11.5	11.5	13.9	12.0	9.2	9.9
Vitamin A RAE	μgRAE [1]	518	345	491	446	447	409	458	543	604	591	530	532	632	577	473	419
Vitamin D	μg	6.4	3.4	5.8	5.3	4.6	4.9	5.3	5.4	7.1	9.0	7.4	6.6	8.3	8.1	4.0	4.0
Vitamin E	mg [2]	6.5	3.8	5.9	6.6	5.4	6.1	6.0	6.6	7.2	7.4	6.3	6.6	7.6	6.6	7.6	5.9
Vitamin K	μg	235	128	204	215	207	220	219	239	270	268	227	243	288	233	237	209
Vitamin B1	mg	0.87	0.62	0.94	0.98	0.77	0.83	0.89	0.83	0.93	0.94	0.80	0.88	0.97	0.84	0.90	0.87
Vitamin B2	mg	1.12	0.76	1.18	1.11	0.97	1.00	1.05	1.09	1.21	1.27	1.11	1.13	1.26	1.18	1.05	1.08
Niacin NE	mg	28.0	16.9	27.4	30.1	25.6	26.6	28.6	27.9	30.3	30.5	26.0	28.6	31.2	27.5	27.6	27.3
Vitamin B6	mg	1.09	0.69	1.03	1.09	0.91	0.96	1.01	1.05	1.23	1.30	1.09	1.12	1.31	1.16	1.07	0.97
Vitamin B12	μg	5.7	2.7	5.8	4.4	4.3	5.0	4.5	5.4	6.5	7.5	6.2	5.9	6.9	7.2	4.9	4.9
Folic acid	μg	283	148	230	245	226	233	247	284	328	348	311	295	351	324	243	220
Pantothenic acid	mg	5.28	3.83	5.83	5.60	4.65	4.87	5.06	5.12	5.68	5.79	5.02	5.30	5.89	5.30	5.49	5.20
Vitamin C	mg	96	49	66	81	62	65	74	88	118	135	116	101	136	120	83	55
Sodium	mg	3,544	1,962	3,216	3,451	3,277	3,347	3,499	3,602	3,934	3,847	3,534	3,651	3,894	3,679	3,007	3,209
Salt equivalent	g [3]	9.0	5.0	8.2	8.8	8.3	8.5	8.9	9.2	10.0	9.8	9.0	9.3	9.9	9.3	7.6	8.2
Salt equivalent	g/1,000 kcal	5.4	4.2	4.6	4.7	5.3	5.2	5.2	5.5	5.8	5.6	5.6	5.5	5.6	5.7	4.3	4.6
Potassium	mg	2,220	1,435	2,133	2,060	1,743	1,896	2,033	2,153	2,529	2,648	2,250	2,273	2,694	2,367	2,108	1,864
Calcium	mg	494	391	594	454	408	406	441	472	539	574	490	494	567	525	456	462
Magnesium	mg	235	143	214	213	192	205	219	233	269	275	236	242	280	249	205	212
Phosphorus	mg	942	650	1,014	985	837	852	916	917	1,012	1,040	903	948	1,046	952	914	903
Iron	mg	7.3	4.0	6.3	7.0	6.2	6.4	6.7	7.2	8.4	8.6	7.4	7.5	8.8	7.8	6.7	6.5
Zinc	mg	7.7	5.2	8.3	8.6	7.3	7.3	7.8	7.5	8.0	8.0	7.2	7.7	8.1	7.5	8.0	8.2
Copper	mg	1.04	0.66	1.00	1.05	0.90	0.96	0.98	1.03	1.15	1.19	1.06	1.07	1.20	1.11	1.02	0.97
Fat-energy ratio	% [4]	29.3	28.2	30.2	31.3	30.9	31.1	30.3	29.9	28.9	28.1	26.4	29.2	28.7	26.9	30.8	30.8
Carbohydrate-energy ratio	% [4,5]	55.3	57.7	54.6	53.6	53.6	54.0	54.4	54.9	55.2	55.8	58.5	55.3	55.2	57.5	54.1	54.7
Animal protein ratio	% [4]	53.8	56.0	58.7	59.2	56.9	53.7	54.9	52.1	52.0	52.8	51.0	53.0	52.6	51.7	58.5	53.1
Cereal-energy ratio	% [4]	38.1	39.0	39.6	40.4	40.6	39.8	40.2	37.8	35.5	35.7	39.5	37.8	34.3	38.6	38.6	43.9

[1] Abbreviation: RAE, retinol activity equivalents.
[2] Including only α-tocopherol.
[3] Salt equivalents = Na (mg) × 2.54/1,000
[4] Nutrient values are shown as the mean value per person per day.
[5] Carbohydrate-energy ratio = 100 – protein-energy ratio – fat-energy ratio.

2. Intake by food groups

Table 14. Age-dependent intake of participants by food groups

		Total	1- 6 years	7-14 years	15-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	(reprint) 70-79 years	(reprint) 80 years and over	(reprint) 20 years and over	(reprint) 65-74 years	(reprint) 75 years and over
Total	Participants (n)	5,865	235	454	249	365	460	742	775	1,046	1,042	497	4,927	1,217	952
	Cereals	410.7	257.9	429.1	524.4	448.8	432.4	433.6	413.1	401.7	388.7	388.1	410.5	390.6	391.7
	Potatoes and starches	50.2	36.1	52.9	61.3	41.3	42.5	48.2	42.6	51.1	61.3	51.9	50.0	60.6	53.8
	Sugars and sweeteners	6.3	4.0	5.7	6.1	5.8	5.5	5.9	6.0	6.7	7.3	7.4	6.5	7.3	7.3
	Pulses	60.6	31.0	43.9	40.8	46.8	44.8	51.7	64.6	76.7	76.1	65.1	64.6	77.7	68.9
	Nuts and seeds	2.5	1.5	1.7	1.3	1.3	2.9	2.1	3.0	3.2	3.2	2.2	2.7	3.4	2.5
	Vegetables	269.8	129.0	241.1	243.4	222.6	239.5	246.8	268.6	307.1	323.1	284.2	280.5	330.0	291.8
	Green and yellow vegetables	81.8	45.3	71.3	69.9	60.5	73.2	69.8	78.0	94.9	103.9	88.4	85.1	105.4	92.0
	Fruits	96.4	93.2	73.9	66.3	46.9	43.9	55.2	70.6	118.6	159.4	141.7	100.2	143.9	149.8
	Mushrooms	16.9	8.3	14.6	13.9	14.2	15.8	15.1	15.1	22.4	19.6	16.4	17.7	21.7	16.8
	Seaweed	9.9	5.8	5.8	7.7	7.0	8.0	8.8	10.5	11.4	12.5	12.8	10.6	12.4	12.1
	Fish and shellfish	64.1	29.7	45.2	43.3	50.8	50.8	52.8	59.2	77.7	88.9	73.8	68.5	85.0	82.9
	Meats	103.0	63.1	110.1	168.3	130.7	116.1	130.3	106.9	94.5	81.5	66.5	101.0	87.5	71.3
	Eggs	40.4	19.6	33.5	54.7	38.9	37.7	40.4	40.1	43.7	44.5	38.4	41.4	45.8	38.8
	Milks	131.2	211.7	302.7	149.1	111.9	77.5	96.0	101.3	117.3	127.8	127.5	110.7	121.0	130.1
	Fats and oils	11.2	6.4	9.0	15.3	12.4	12.3	12.8	12.1	11.4	10.3	8.8	11.4	11.3	9.0
	Confectionaries	25.7	23.5	35.9	34.6	21.9	26.5	22.6	24.3	25.2	25.1	24.3	24.4	27.1	22.8
	Beverages	618.5	235.6	315.5	442.3	523.4	629.6	702.9	727.8	753.5	662.2	551.3	673.5	706.3	596.6
	Seasonings and spices	62.5	32.4	53.1	59.1	63.5	64.1	60.6	62.8	71.2	67.8	57.2	64.9	71.0	61.7
Men	Participants (n)	2,782	105	250	130	183	210	351	350	502	502	199	2,297	590	421
	Cereals	478.1	268.3	463.3	630.5	545.0	516.8	502.7	495.5	466.0	443.9	447.8	480.6	455.1	445.6
	Potatoes and starches	52.5	39.7	54.0	68.1	47.1	43.6	53.4	47.1	50.2	59.8	56.5	52.0	58.1	57.5
	Sugars and sweeteners	6.4	4.0	6.0	6.2	6.2	5.5	5.8	5.8	6.8	7.5	7.4	6.5	7.4	7.4
	Pulses	60.0	31.4	45.3	40.8	45.6	45.5	51.1	65.9	72.5	76.2	67.3	64.0	72.5	70.6
	Nuts and seeds	2.5	1.9	1.7	1.0	1.2	3.5	1.6	3.2	3.2	3.0	1.9	2.6	3.4	2.3
	Vegetables	276.7	135.3	247.9	240.2	233.0	258.9	253.0	278.2	304.3	332.5	298.6	288.3	329.4	306.5
	Green and yellow vegetables	79.8	46.8	72.1	66.9	62.1	71.6	69.2	75.8	88.5	101.7	89.2	82.9	100.0	90.8
	Fruits	85.8	106.4	75.0	59.6	41.2	32.9	49.3	53.4	96.8	147.4	141.1	87.5	120.9	150.6
	Mushrooms	16.5	9.9	12.6	10.2	14.2	17.0	13.7	13.8	22.6	20.0	16.6	17.6	21.6	17.7
	Seaweed	10.2	4.4	4.9	8.5	7.5	8.2	9.1	12.1	11.2	12.6	15.4	11.1	12.9	12.7
	Fish and shellfish	70.4	33.5	46.1	42.4	60.0	56.2	59.9	67.4	85.6	96.8	82.5	76.3	92.4	93.1
	Meats	118.4	65.5	112.2	190.8	152.8	137.8	152.8	126.4	108.0	91.6	73.5	117.4	98.0	79.6
	Eggs	42.7	22.7	34.2	60.0	43.4	40.7	40.2	42.6	47.1	46.9	36.8	43.5	48.1	39.2
	Milks	131.4	233.6	328.3	169.6	119.3	59.8	85.2	83.6	105.8	125.8	135.3	103.1	112.1	132.1
	Fats and oils	12.3	6.6	9.1	17.1	14.2	13.7	14.6	13.3	12.6	11.1	9.6	12.6	12.1	9.6
	Confectionaries	23.4	17.4	35.9	34.7	21.5	21.1	20.9	21.5	19.4	23.2	26.1	21.7	23.9	22.2
	Beverages	699.9	237.8	342.7	504.6	541.0	709.0	820.3	830.8	888.5	745.5	623.7	771.0	807.3	675.5
	Seasonings and spices	67.3	37.1	54.5	63.9	69.5	70.6	65.7	67.4	75.6	73.3	62.7	70.3	76.8	66.9
Women	Participants (n)	3,083	130	204	119	182	250	391	425	544	540	298	2,630	627	531
	Cereals	349.9	249.5	387.2	408.4	352.0	361.4	371.6	345.2	342.4	337.4	348.3	349.3	329.9	348.9
	Potatoes and starches	48.1	33.2	51.7	53.9	35.4	41.7	43.5	38.9	51.9	62.7	48.8	48.3	63.0	50.8
	Sugars and sweeteners	6.3	4.0	5.3	6.0	5.4	5.4	6.0	6.3	6.6	7.1	7.4	6.5	7.2	7.2
	Pulses	61.2	30.7	42.2	40.9	48.1	44.2	52.2	63.6	80.7	76.1	63.7	65.1	82.6	67.6
	Nuts and seeds	2.6	1.2	1.8	1.7	1.3	2.4	2.6	2.8	3.2	3.3	2.4	2.8	3.4	2.6
	Vegetables	263.6	123.8	232.8	246.9	212.1	223.2	241.2	260.7	309.8	314.4	274.5	273.6	330.6	280.1
	Green and yellow vegetables	83.6	44.2	70.3	73.2	58.8	74.4	70.4	79.9	100.8	105.9	87.9	87.1	110.4	92.9
	Fruits	106.0	82.5	72.5	73.6	52.7	53.2	60.5	84.7	138.8	170.5	142.0	111.2	165.5	149.1
	Mushrooms	17.3	7.0	17.0	17.8	14.2	14.7	16.4	16.2	22.2	19.3	16.2	17.8	21.9	16.2
	Seaweed	9.7	6.9	7.0	6.9	6.6	7.8	8.5	9.2	11.6	12.4	11.0	10.1	11.9	11.7
	Fish and shellfish	58.4	26.6	44.2	44.3	41.6	46.3	46.5	52.5	70.4	81.6	68.0	61.7	78.1	74.7
	Meats	89.2	61.3	107.5	143.6	108.6	97.9	110.1	90.8	82.1	72.2	61.7	86.7	77.6	64.7
	Eggs	38.4	17.2	32.6	48.8	34.4	35.2	40.5	38.0	40.6	42.2	39.5	39.4	43.6	38.5
	Milks	131.1	194.0	271.3	126.6	104.5	92.4	105.7	115.8	127.9	129.6	122.3	117.4	129.5	128.4
	Fats and oils	10.1	6.3	9.0	13.3	10.5	11.2	11.2	11.1	10.2	9.5	8.4	10.3	10.5	8.5
	Confectionaries	27.8	28.4	35.9	34.6	22.2	31.0	24.2	26.5	30.7	26.8	23.1	26.8	30.2	23.2
	Beverages	544.9	233.9	282.3	374.2	505.8	562.8	597.4	643.0	628.9	584.8	503.0	588.4	611.2	534.0
	Seasonings and spices	58.1	28.6	51.4	53.9	57.5	58.8	56.0	59.0	67.2	62.7	53.6	60.3	65.6	57.6

* Food values are shown in grams and as the mean values per person per day