This is a summary based on the report of the National Health and Nutrition Survey, 2016 publishd 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.

National Institute of Health and Nutrition

The National Health and Nutrition Survey (NHNS) Japan, 2016

Summary

Contents

Summary of the Survey

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

The purpose of this survey was 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. Furthermore, this survey also aimed to obtain data on the health status and lifestyle by region as well as nationwide.

2. Participants

In the 2010 National Census, participants included households and family members (aged 1 year and over as of November 1, 2016) in 475 areas with 10 areas per prefecture (Tokyo: 15 areas), stratified and randomly extracted from the general census areas. Of the selected census areas, 13 were excluded due to the influence of the Kumamoto earthquake in April, typhoon No. 10 in August, and the Tottori Prefecture earthquake in October 2016.
The following households and family members were excluded from this survey:
<Households>
-Households of which the heads were not Japanese.
-Households which 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 not having meals together with the rest of the family.
-Those who were absent from the household which included 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, dietary survey and a lifestyle habits questionnaire. The age of the subjects was the age as of November 1, 2016. The survey items and the target age were as follows:

3.1.1 Physical examination

A) Height (aged 1 year and over)
B) Body weight (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:
    Drugs in use
        Anti-hypertensives
        Anti-arrhythmic
        Insulin or other oral drugs for treatment of diabetes mellitus
        Cholesterol-lowering
        Antihyperlipidemic (triglyceride lowering)
    Diagnosis and treatment
        Diagnosis of diabetes
        Treatment for diabetes
    Regular exercise habits
        Presence of restrictions for exercise due to medical reasons
        Frequency of exercise per week
        Average exercise duration per day
        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 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 in a day, aged 20 years and over).

3.1.3 Lifestyle Habits Questionnaire (aged 20 years and over)

Participants were provided a self-administered questionnaire, in which they answered questions about eating habits, physical activity, exercise, resting (sleep), alcohol intake, smoking, and dental health.

3.2 Survey period

The period of this survey was from October to November, 2016.

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

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

5.1 Estimation of national values

When estimating national values (Chapters 1 and 3), weighting was performed to correct for differences between the number of households analyzed in the previous and current surveys, in each prefecture to compare with results of the National Health and Nutrition Surveys before 2015.

The weight of each prefecture was calculated by dividing the total number of households surveyed during the past 3 years (2013-2015) in each prefecture by the number of households estimated in 2016. Using this value, the mean, standard deviation, median, and proportion were calculated and regarded as national weight-adjusted values (national adjusted values). These national values were not adjusted for gender or age, as reported in the previous survey results.

5.2 Estimation for each prefecture

When estimating the results for each prefecture (Chapter 2), age adjustment was done. Using the mean age of the participants in each item, the mean and proportions were calculated for each prefecture.

When the age ranges differed between men and women in the item, different mean ages were used for the two sexes. However, when they were the same, the combined mean age for men and women was used.

5.3 Statistical analysis

The comments related to the evaluation of results such as “it was significantly higher (lower, increased, or de- creased)” and “it was not significantly increased or decreased” were made based on the statistical tests (level of statistical significance defined as $p < 0.05$).

To analyze the trend of the calculated values, age adjusted values were calculated applying the 2010 Census population using the six age groups 20-29 years, 30-39 years, 40-49 years, 50-59 years, 60-69 years, and 70-79 years[1]. The 10-year trend test was performed using the Joinpoint Regression Program which used the mean/proportion and standard error for each year. To test the trend of 4-6 points, regression analysis was performed based on the oldest survey year[2]. For the trend in the proportion of persons aged 65 years or older with low BMI (BMI ≤ 20), the values were adjusted to the 2010 Census population using three age categories (65-74, 75-84, and ≥ 85 years)1, and tested by the Joinpoint Regression Program using the proportion and standard error for each year[2]. In these trend tests, the adjusted national values were used for the 2012 and 2016 surveys[3]. The chi-square test was performed to compare the proportions be- tween two surveys.

1 Directed estimation method

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

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

6. Collection of Samples and Results

The results were analyzed by the National Institutes of Biomedical Innovation, Health and Nutrition. There were 24,187 target households for the survey, and 10,745 households* were surveyed.

* Number of households that responded to the household status in the dietary survey questionnaire.

6.1 Number of samples collected with respect to age category

Males and Females	Physical Examination		Blood Test		Dietary Survey		Steps per day		Lifestyle questionnaire	
	n	%	n	%	n	%	n	%	n	%
Total	26,354	100.0	11,391	100.0	26,133	100.0	20,327	100.0	25,704	100.0
1–6 years	1,013	3.8	-	-	1,244	4.8	-	-	-	-
7–14 years	1,516	5.8	-	-	1,988	7.6	-	-	-	-
15–19 years	735	2.8	-	-	1,050	4.0	-	-	-	-
20–29 years	1,619	6.1	467	4.1	1,489	5.7	1,387	6.8	1,867	7.3
30–39 years	2,748	10.4	1,094	9.6	2,557	9.8	2,421	11.9	3,063	11.9
40–49 years	3,658	13.9	1,533	13.5	3,400	13.0	3,230	15.9	4,133	16.1
50–59 years	3,472	13.2	1,591	14.0	3,263	12.5	3,106	15.3	3,832	14.9
60–69 years	5,228	19.8	3,065	26.9	4,948	18.9	4,748	23.4	5,697	22.2
70 years and over	6,365	24.2	3,641	32.0	6,194	23.7	5,435	26.7	7,112	27.7

Males and Females	Physical Examination		Blood Test		Dietary Survey		Steps per day		Lifestyle questionnaire	
	n	%	n	%	n	%	n	%	n	%
Total	12,251	100.0	4,659	100.0	12,202	100.0	9,284	100.0	11,852	100.0
1–6 years	487	4.0	-	-	611	5.0	-	-	-	-
7–14 years	788	6.4	-	-	1,045	8.6	-	-	-	-
15–19 years	382	3.1	-	-	559	4.6	-	-	-	-
20–29 years	767	6.3	196	4.2	710	5.8	662	7.1	895	7.6
30–39 years	1,306	10.7	401	8.6	1,207	9.9	1,125	12.1	1,471	12.4
40–49 years	1,708	13.9	590	12.7	1,581	13.0	1,494	16.1	1,944	16.4
50–59 years	1,595	13.0	597	12.8	1,486	12.2	1,402	15.1	1,777	15.0
60–69 years	2,437	19.9	1,298	27.9	2,307	18.9	2,189	23.6	2,679	22.6
70 years and over	2,781	22.7	1,577	33.8	2,696	22.1	2,412	26.0	3,086	26.0

Males and Females	Physical Examination		Blood Test		Dietary Survey		Steps per day		Lifestyle questionnaire	
	n	%	n	%	n	%	n	%	n	%
Total	14,103	100.0	6,732	100.0	13,931	100.0	11,043	100.0	13,852	100.0
1–6 years	526	3.7	-	-	633	4.5	-	-	-	-
7–14 years	728	5.2	-	-	943	6.8	-	-	-	-
15–19 years	353	2.5	-	-	491	3.5	-	-	-	-
20–29 years	852	6.0	271	4.0	779	5.6	725	6.6	972	7.0
30–39 years	1,442	10.2	693	10.3	1,350	9.7	1,296	11.7	1,592	11.5
40–49 years	1,950	13.8	943	14.0	1,819	13.1	1,736	15.7	2,189	15.8
50–59 years	1,877	13.3	994	14.8	1,777	12.8	1,704	15.4	2,055	14.8
60–69 years	2,791	19.8	1,767	26.2	2,641	19.0	2,559	23.2	3,018	21.8
70 years and over	3,584	25.4	2,064	30.7	3,498	25.1	3,023	27.4	4,026	29.1

6.2 Number of Samples Collected with Respect to Regions and Prefectures

	Total	Physical Examination		Dietary Survey		Lifestyle Survey
			Blood Test		Steps per day	
Hokkaido	578	453	164	478	362	458
Tohoku	4,099	3,449	1,369	3,406	2,722	3,482
Aomori	829	699	211	693	575	704
Iwate	568	484	225	478	377	485
Miyagi	633	492	176	475	368	547
Akita	678	565	236	606	435	558
Yamagata	711	645	273	611	522	614
Fukushima	680	564	248	543	445	574
Kanto I	2,642	2,289	724	2,208	1,727	2,177
Saitama	786	698	196	704	535	624
Chiba	926	813	254	733	604	783
Tokyo	571	454	174	440	345	479
Kanagawa	359	324	100	331	243	291
Kanto II	4,067	3,398	1,570	3,511	2,679	3,303
Ibaraki	710	488	173	604	440	575
Tochigi	1,201	1,072	449	1,038	780	941
Gunma	717	657	306	645	496	567
Yamanashi	558	518	233	483	400	482
Nagano	881	663	409	741	563	738
Hokuriku	2,848	2,430	1,079	2,616	1,963	2,375
Niigata	846	733	327	750	592	698
Toyama	577	507	283	554	436	509
Ishikawa	704	602	239	664	495	588
Fukui	721	588	230	648	440	580
Tokai	2,900	2,664	1,056	2,447	2,025	2,423
Gifu	953	900	339	870	709	812
Aichi	576	475	213	511	386	486
Mie	606	549	228	497	443	520
Shizuoka	765	740	276	569	487	605
Kinki I	1,763	1,542	574	1,434	1,045	1,433
Kyoto	510	421	157	354	230	396
Osaka	466	435	142	406	304	382
Hyogo	787	686	275	674	511	655
Kinki II	1,738	1,445	599	1,493	1,165	1,490
Nara	590	552	183	534	456	498
Wakayama	592	457	182	495	358	528
Shiga	556	436	234	464	351	464
Chugoku	3,373	2,792	1,377	2,810	2,173	2,815
Tottori	699	520	255	580	445	590
Shimane	867	732	489	798	596	706
Okayama	638	546	203	486	378	510
Hiroshima	483	448	194	400	307	401
Yamaguchi	686	546	236	546	447	608
Shikoku	2,805	2,414	1,097	2,350	1,849	2,386
Tokushima	823	677	240	661	526	703
Kagawa	819	762	302	672	520	688
Ehime	735	668	374	682	537	616
Kochi	428	307	181	335	266	379
Kita-Kyushu	2,189	1,894	1,026	1,876	1,500	1,863
Fukuoka	396	351	150	354	280	332
Saga	567	512	301	519	412	472
Nagasaki	555	430	242	402	316	483
Oita	671	601	333	601	492	576
Minami-Kyushu	1,821	1,584	756	1,504	1,117	1,499
Miyazaki	620	569	341	573	459	519
Kagoshima	527	425	216	425	330	443
Okinawa	674	590	199	506	328	537

7. Accuracy of the Estimation for Each Prefecture

The error rate in the results for many prefectures (approximately 80%) and the mean range of the 95% confidence interval for the prefecture ranks are shown below. The error rate was calculated by dividing the standard error by the mean value for each prefecture. The 95% confidence intervals for the prefecture ranks were calculated as described previously (Marshall EC and Spiegelhalter DJ. BMJ 1998;316:1701-5).

	Error rate obtained in many prefectures		Mean range of 95% CI of prefectural ranking ± SD	
	2016	2012	2016	2012
Mean BMI (males)	1.7%	1.5%	29.5 ± 7.5	27.6 ± 8.5
Mean BMI (females)	1.8%	1.6%	28.1 ± 8.3	26.7 ± 7.8
Mean vegetable intake (males)	5.7%	4.8%	26.8 ± 9.5	21.5 ± 8.3
Mean vegetable intake (females)	5.3%	4.6%	23.3 ± 8.3	23.1 ± 9.1
Mean salt intake (males)	3.7%	3.4%	25.7 ± 9.2	20.3 ± 6.7
Mean salt intake (females)	3.5%	2.9%	25.6 ± 9.0	19.5 ± 8.0
Mean number of steps (males)	7.1%	5.3%	25.9 ± 7.5	25.3 ± 8.2
Mean number of steps (females)	5.7%	5.6%	25.5 ± 7.5	29.5 ± 6.9
Proportion of persons who currently smoke (males)	11.9%	10.8%	29.6 ± 8.6	31.3 ± 8.2

8. Others

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

・Because the values listed in collection of results and samples are rounded off, the breakdown total may not match the total number.

Summary of the Results

Part I. Diabetes

1. Status of "Those in Whom Diabetes is Strongly Suspected" and "Those in Whom the Possibility of Diabetes Cannot be Ruled Out"

The proportion of "those in whom diabetes is strongly suspected" was 12.1% among all the participants (16.3% in men and 9.3% in women). The proportion of "those in whom the possibility of diabetes cannot be ruled out" was also 12.1% among all the participants (12.2% in men and 12.1% in women).

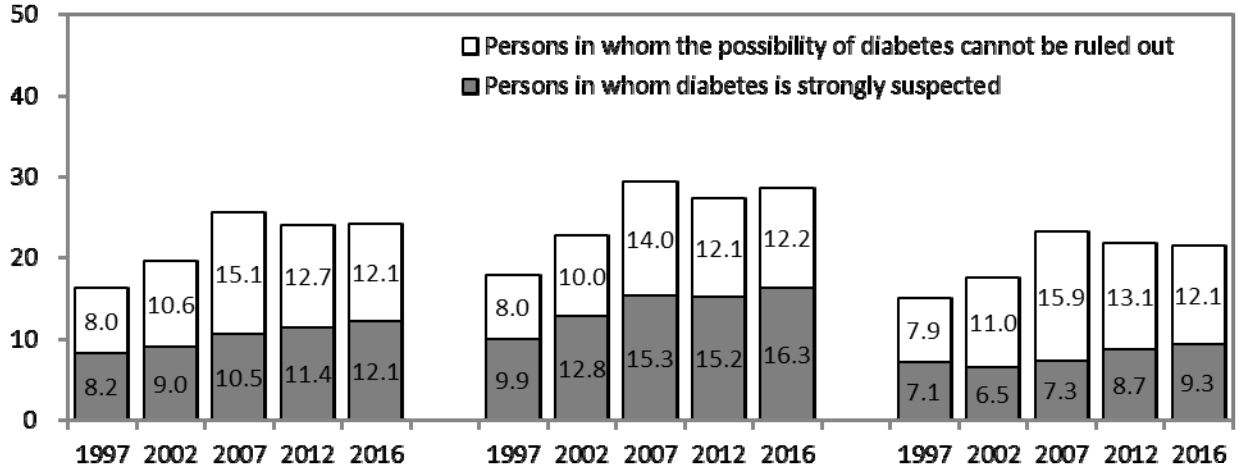


Figure 1. Changes in the Proportion of "Those in Whom Diabetes is Strongly Suspected" and "Those in Whom the Possibility of Diabetes Cannot be Ruled Out" (aged 20 years and over, based on sex)

Definition of "persons in whom diabetes is strongly suspected" and "persons in whom the possibility of diabetes cannot be ruled out":
"Persons in whom diabetes is strongly suspected" were defined as individuals who had a hemoglobin A1c level (National Glycohemoglobin Standardization Program, NGSP) of 6.5% or higher (before 2007, hemoglobin A1c level [Japan Diabetes Society, JDS] of 6.1% or higher), or those who answered "have been treated for diabetes."
"Persons in whom the possibility of diabetes cannot be ruled out" were defined as individuals with hemoglobin A1c level (NGSP) of 6.0% to 6.4% (before 2007, hemoglobin A1c level [JDS] of 5.6% to 6.1%), excluding "persons in whom diabetes is strongly suspected".

Table 1. Annual Changes in the Proportion of "Those in Whom Diabetes is Strongly Suspected" and "Those in Whom the Possibility of Diabetes Cannot be Ruled Out" (aged 20 years and over, based on sex and age)

	Year	Men							Women						
		Total	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70 years and over	Total	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70 years and over
Those in whom diabetes is strongly suspected	1997	9.9	0.9	1.6	5.4	14.2	17.5	11.3	7.1	0.9	1.6	5.3	7.1	10.6	15.5
	2002	12.8	0.0	0.8	4.4	14.0	17.9	21.3	6.5	0.8	0.9	3.6	4.6	11.5	11.6
	2007	15.3	1.1	3.0	7.6	12.1	22.1	22.6	7.3	0.0	0.5	2.9	5.6	14.1	11.0
	2012	15.2	0.6	1.4	5.4	12.2	20.7	23.2	8.7	0.0	1.1	1.7	6.2	12.6	16.7
	2016	16.3	0.0	1.3	3.8	12.6	21.8	23.2	9.3	1.2	0.7	1.8	6.1	12.0	16.8
Those in whom the possibility of diabetes cannot be ruled out	1997	8.0	0.4	4.1	6.8	10.1	10.3	11.5	7.9	1.4	4.2	7.7	10.4	8.8	12.4
	2002	10.0	2.1	2.7	3.4	10.7	13.4	16.1	11.0	0.4	4.4	8.3	10.7	16.0	16.7
	2007	14.0	0.0	3.0	11.0	16.7	17.3	18.4	15.9	0.9	5.4	10.4	20.8	18.2	23.8
	2012	12.1	0.5	1.8	7.2	10.2	15.5	17.7	13.1	0.8	3.1	7.5	12.1	17.4	20.8
	2016	12.2	0.7	1.5	4.7	11.1	12.5	18.8	12.1	0.0	0.7	5.1	9.7	15.2	20.2

2. Estimated Numbers of "Those in Whom Diabetes is Strongly Suspected" and "Those in Whom the Possibility of Diabetes Cannot be Ruled Out"

The number of "persons in whom diabetes is strongly suspected" was estimated to be approximately 10 million which has increased since 1997. In addition, the number of "persons in whom the possibility of diabetes cannot be ruled out" is also estimated to be approximately 10 million. Although that number has increased since 1997, it started to decrease after 2007.

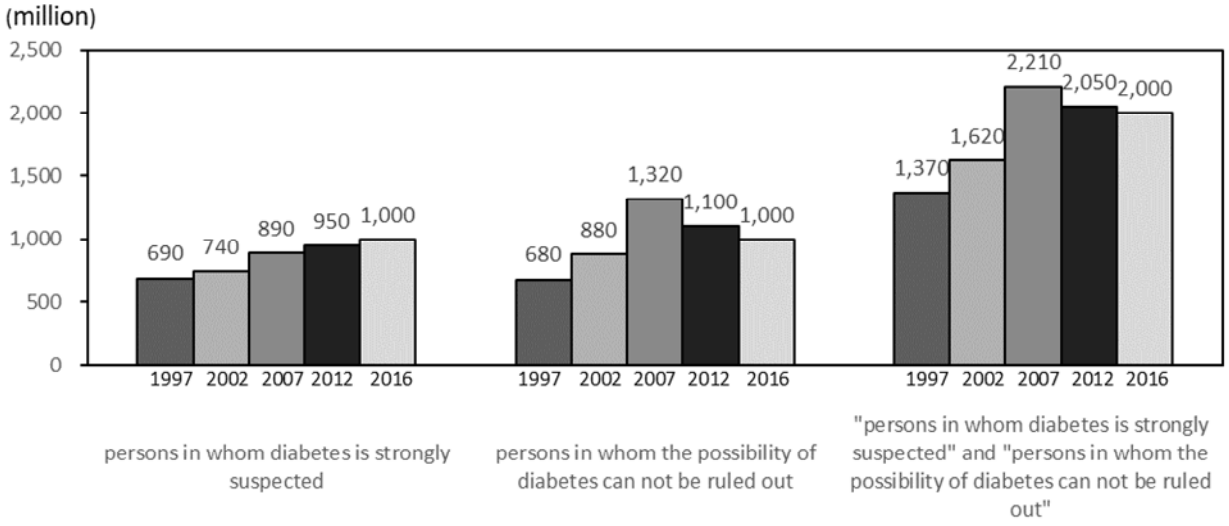


Figure 2. Changes in the Estimated Numbers of "Those in Whom Diabetes is Strongly Suspected" and "Those in Whom the Possibility of Diabetes Cannot be Ruled Out" (aged 20 years and over, total of men and women) (1997, 2002, 2007, 2012, 2016)

Calculation of the estimated numbers of "those in whom diabetes is strongly suspected" and "those in whom the possibility of diabetes cannot be ruled out":
Estimated national values were calculated by multiplying the proportion of "persons in whom diabetes is strongly suspected" and the proportion of "persons in whom the possibility of diabetes cannot be ruled out" both based on sex and age, by the national population based on sex and age described in the "Population Estimate (as of October 1, 2016)" published by the Statistical Bureau of the Ministry of Internal Affairs and Communications.

Table 2. Sex and Age Distribution of the Analyzed Subjects

		Men							Women						
		Total	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70 years and over	Total	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70 years and over
1997	n	2,403	234	317	443	486	532	391	3,656	423	553	703	761	661	555
	(%)	100	9.7	13.2	18.4	20.2	22.1	16.3	100	11.6	15.1	19.2	20.8	18.1	15.2
2002	n	2,150	145	257	295	429	546	478	3,196	253	456	472	694	663	658
	(%)	100	6.7	12.0	13.7	20.0	25.4	22.2	100	7.9	14.3	14.8	21.7	20.7	20.6
2007	n	1,619	88	200	210	264	411	446	2,384	116	389	347	447	523	562
	(%)	100	5.4	12.4	13.0	16.3	25.4	27.5	100	4.9	16.3	14.6	18.8	21.9	23.6
2012	n	5,752	299	626	687	824	1,552	1,764	8,337	435	1,028	1,147	1,376	2,075	2,276
	(%)	100	5.2	10.9	11.9	14.3	27.0	30.7	100	5.2	12.3	13.8	16.5	24.9	27.3
2016	n	4,582	192	395	583	592	1,275	1,545	6,609	262	679	928	980	1,737	2,023
	(%)	100	4.2	8.6	12.7	12.9	27.8	33.7	100	4.0	10.3	14.0	14.8	26.3	30.6

Persons in whom hemoglobin A1c levels were measured were analyzed.

3. Status Regarding Diabetes Treatment

Among “persons in whom diabetes is strongly suspected”, the proportion of those currently receiving treatment is 76.6%. The proportion is 78.7% in men and 74.1% in women, showing a significant increase for both. For the results by sex and age, the proportion of patients undergoing treatment was lower among men in their 40s compared to men in other age groups.

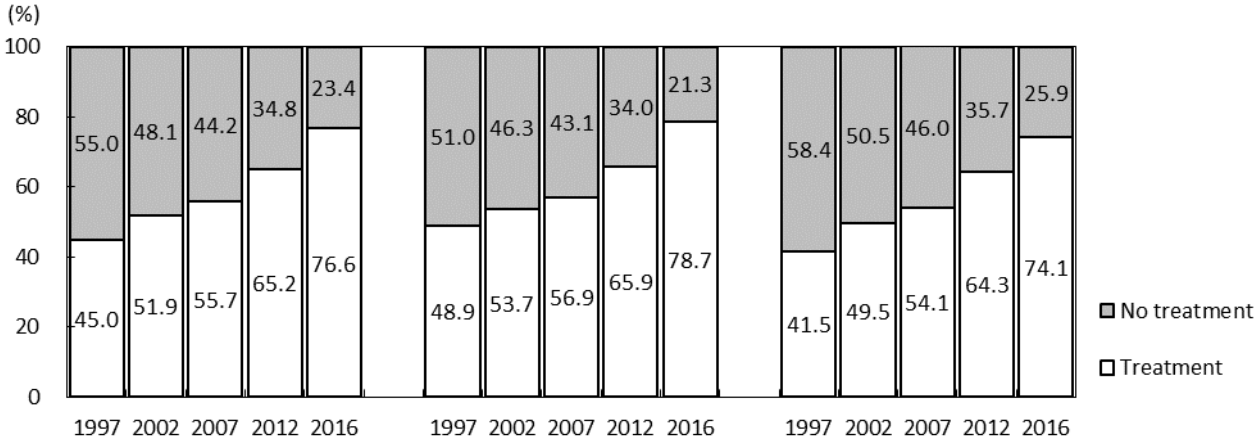


Figure 3. Annual Changes in Treatment of “Persons in Whom Diabetes is Strongly Suspected” (aged 20 years and over, based on sex)

“Treatment” refers to persons who responded (a) “currently undergoing treatment” from 1997 to 2007, (b) “continuously undergoing treatment from the past until now” or “dis- continued treatment in the past but currently undergoing treatment” in 2012, from 1997 to 2007, and (c)“yes” to “treatment of diabetes” in 2016.

“No treatment” refers to persons who responded (a) “never undergone treatment” or “have undergone before, but not undergoing at the moment” or “have never received a diagnosis of diabetes” from 1997 to 2007, (b) “never undergone treatment” or “have undergone in the past, but not undergoing at the moment” or “have never been received a diagnosis of diabetes” in 2012; and (c) “no” to “treatment of diabetes” in 2016.

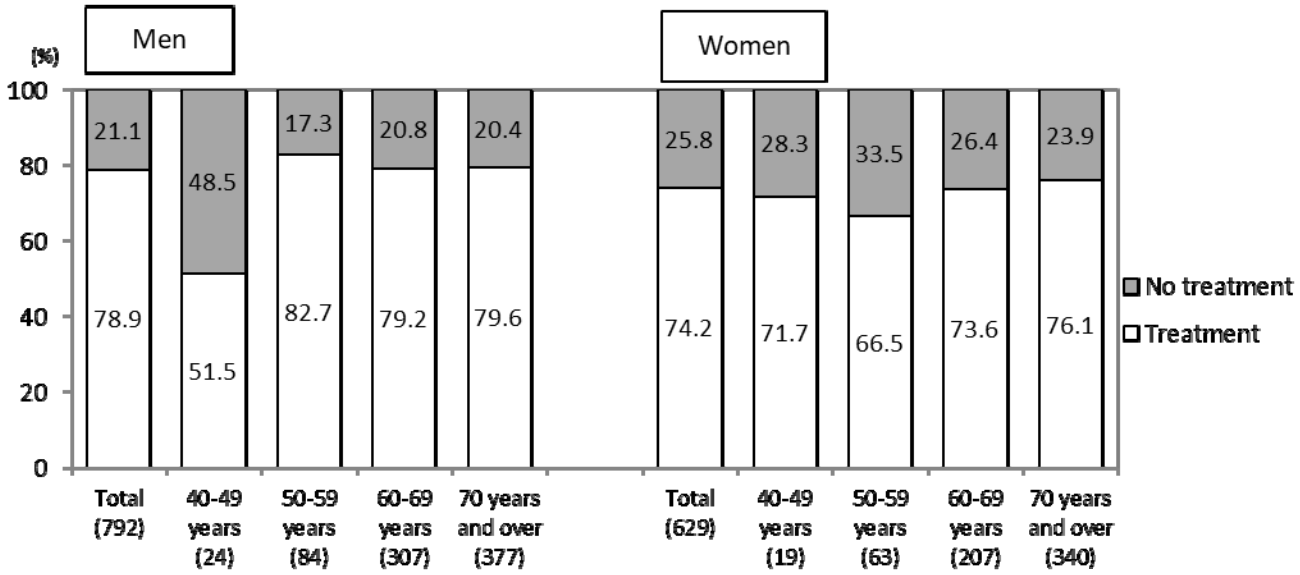


Figure 4. Treatment Status in “Those in Whom Diabetes is Strongly Suspected”(aged 40 years and over, based on age and sex, adjusted nationwide values)

Part II. Prefectural Results Regarding Physical Condition and Lifestyle

With respect to physical condition (BMI) and lifestyle habits, the results for each prefecture were adjusted for age. The prefectures were divided into quartiles (high to low). The results were compared between the highest quartile and the lowest quartile. There were significant differences in BMI, vegetable intake, salt intake, number of steps, and the proportion of regular smokers (men) between the highest quartiles and the lowest quartiles.
In addition, the difference between the high and low prefectures for vegetable intake in men and for salt intake in both men and women was smallen in comparison to the 2012 survey.

Table 3. Prefectural Results Regarding Physical Status (BMI) and Lifestyle

	Mean (total)	Mean of the highest and the lowest quartile		Difference between the highest and the lowest quartile
		The highest quartile	The lowest quartile	
1. Mean BMI (kg/m2)				
Men (20–69 years)	23.8	24.4	23.4	0.9
Women (aged 40–69 years)	22.6	23.3	22.1	1.2
2. Mean vegetable intake (g/day)				
Men (aged 20 years and over)	284	318	258	59
Women (aged 20 years and over)	270	302	242	60
3. Mean salt intake (g/day)				
Men (aged 20 years and over)	10.8	11.5	10.0	1.5
Women (aged 20 years and over)	9.2	9.7	8.5	1.1
4. Mean number of steps (steps/day)				
Men (20–64 years)	7,779	8,264	6,774	1,490
Women (aged 20–64 years)	6,776	7,200	5,930	1,270
5. Proportion of persons with current habit of smoking (%)				
Men (aged 20 years and over)	29.7	35.2	25.4	9.9

The data by prefecture were divided into quartiles (high to low), excluding the Kumamoto prefecture. The values used for comparison are adjusted by the mean age in the age category for each parameter. Because the national means in Part II were adjusted for age according to the above method, they differ from the national age-adjusted values shown in the annual changes in Part I and III.
Because the difference between the highest and lowest quartile was a rounded off value, it is not consistent with the value obtained by subtracting the mean value of the lowest quartile from the mean value of the highest quartile. Because the proportion of women regular smokers had a remarkably high error rate, it was determined to be unsuitable for estimating the regional gaps in this survey as well as in the 2012 survey.

<Appendix> Prefectural Results Regarding Physical Condition (BMI) and lifestyle habits

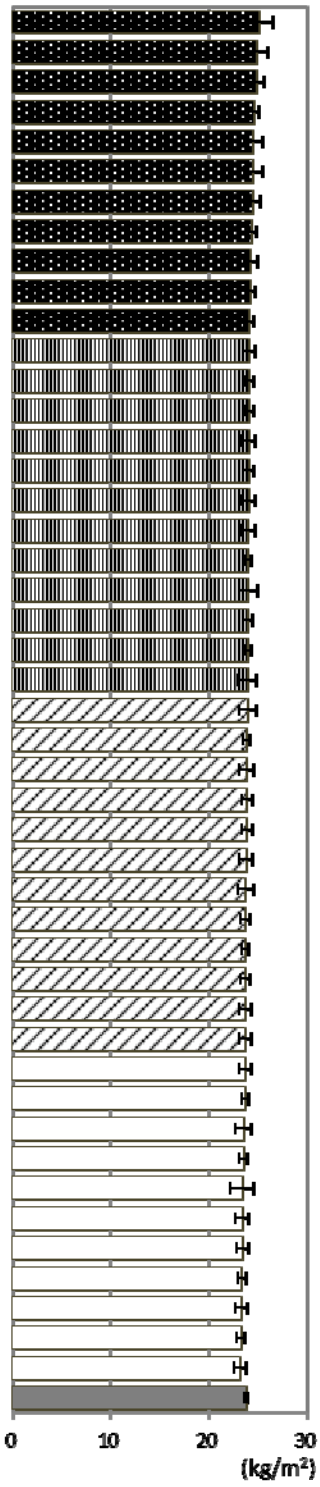
The data by prefecture are divided into quartiles (high to low), and represented by color. Additional decimal places were calculated to show differences in rank and the results are arranged in order of highest to lowest values.
Regarding the horizontal axis error range in the figure, the 95% confidence interval of the ratio or the average value is presented.

1. The mean of BMI

Men (20–69 years)

Prefecture	n	Mean (kg/m²)*
Kochi	52	25.1
Fukushima	108	24.8
Miyazaki	133	24.8
Miyagi	112	24.6
Aomori	155	24.5
Kagoshima	80	24.5
Iwate	105	24.4
Nagano	113	24.3
Okayama	133	24.2
Shimane	155	24.2
Ehime	162	24.1
Akita	127	24.1
Okinawa	163	24.1
Kagawa	207	24.1
Gunma	175	24.1
Tokushima	173	24.0
Osaka	104	24.0
Hokkaido	82	24.0
Fukui	118	24.0
Fukuoka	90	24.0
Yamanashi	142	24.0
Chiba	197	23.9
Shiga	72	23.9
Ishikawa	124	23.9
Tochigi	299	23.9
Wakayama	73	23.9
Yamaguchi	117	23.9
Hyogo	167	23.8
Oita	134	23.8
Saga	111	23.7
Ibaraki	65	23.7
Saitama	207	23.7
Nara	141	23.7
Yamagata	171	23.7
Gifu	271	23.7
Tottori	84	23.7
Hiroshima	101	23.7
Nagasaki	85	23.6
Mie	158	23.5
Kanagawa	88	23.4
Toyama	90	23.4
Kyoto	98	23.4
Aichi	96	23.3
Tokyo	103	23.3
Shizuoka	187	23.3
Niigata	184	23.1
Total	6,112	23.8

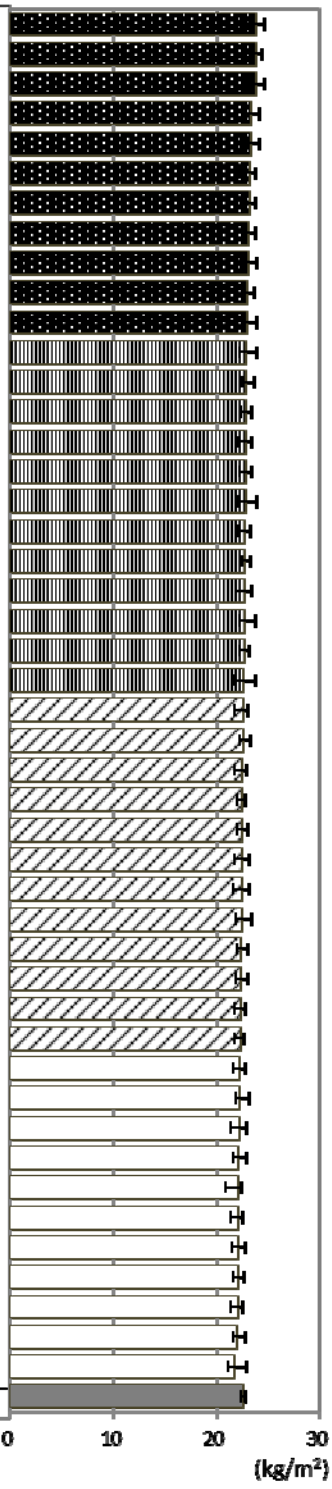
*Age-adjusted value



Women (40–69 years)

Prefecture	n	Mean (kg/m²)*
Fukushima	107	23.9
Miyazaki	121	23.8
Okinawa	146	23.8
Yamagata	144	23.4
Okayama	101	23.3
Aomori	127	23.2
Miyagi	95	23.2
Ehime	178	23.1
Ibaraki	78	23.1
Gunma	139	23.0
Toyama	98	23.0
Nagasaki	99	22.9
Aichi	89	22.9
Saga	121	22.8
Niigata	167	22.8
Tochigi	219	22.8
Kochi	65	22.8
Fukui	113	22.8
Kagoshima	80	22.8
Kagawa	174	22.8
Akita	102	22.8
Osaka	99	22.7
Iwate	85	22.6
Gifu	201	22.6
Saitama	163	22.6
Oita	126	22.5
Wakayama	94	22.5
Nagano	131	22.5
Shimane	184	22.5
Chiba	160	22.5
Kanagawa	69	22.4
Hiroshima	100	22.4
Hyogo	154	22.4
Shizuoka	168	22.3
Mie	119	22.3
Nara	120	22.3
Hokkaido	75	22.3
Tokyo	73	22.2
Yamanashi	116	22.2
Yamaguchi	116	22.1
Tottori	94	22.1
Tokushima	155	22.1
Shiga	82	22.1
Ishikawa	123	22.1
Kyoto	102	22.0
Fukuoka	86	21.8
Total	5,558	22.6

*Age-adjusted value

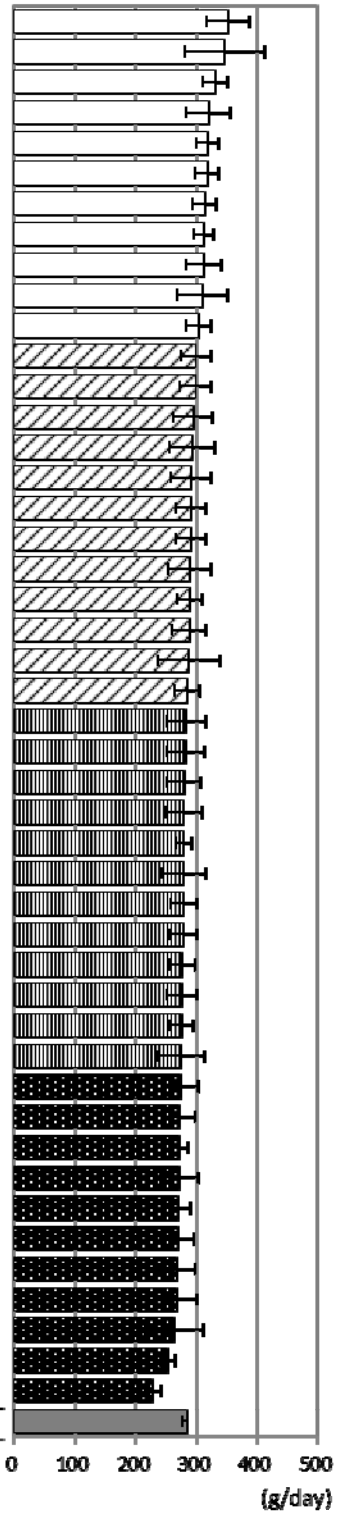


2. The mean vegetable intake

Men (20 years and over)

Prefecture	n	Mean (g/day)*
Nagano	288	352
Fukushima	210	347
Miyagi	193	332
Fukuoka	130	320
Aomori	267	319
Yamanashi	187	318
Shimane	289	314
Tokushima	264	313
Ishikawa	252	313
Kochi	130	310
Saitama	285	303
Oita	228	300
Iwate	188	299
Niigata	287	295
Hyogo	260	294
Miyazaki	219	292
Toyama	224	291
Ibaraki	228	291
Saga	192	289
Tottori	220	289
Fukui	239	288
Kyoto	117	288
Kagawa	256	285
Chiba	278	283
Akita	231	283
Wakayama	205	280
Gunma	252	280
Tochigi	395	280
Kagoshima	155	279
Nara	209	279
Okayama	172	279
Yamagata	235	277
Hiroshima	149	277
Hokkaido	167	276
Tokyo	164	275
Shizuoka	207	274
Ehime	255	273
Gifu	361	273
Okinawa	181	273
Yamaguchi	221	270
Shiga	182	269
Nagasaki	152	269
Mie	199	269
Kanagawa	133	264
Osaka	136	254
Aichi	195	229
Total	9,987	284

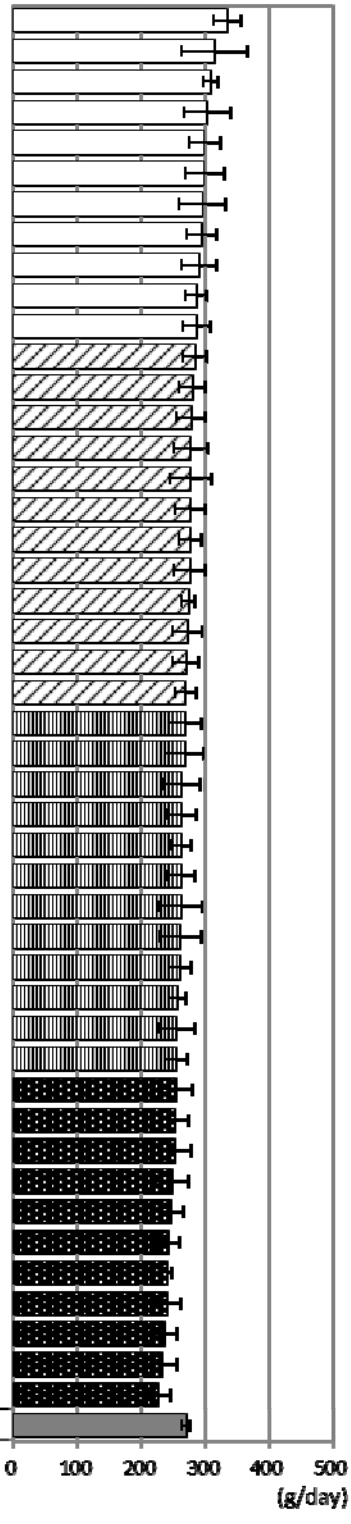
*Age-adjusted value



Women (20 years and older)

Prefecture	n	Mean (g/day)*
Nagano	329	335
Fukushima	248	314
Tokushima	300	309
Kanagawa	142	304
Aomori	318	300
Yamanashi	234	300
Kochi	166	296
Saitama	293	295
Niigata	330	291
Miyagi	208	287
Iwate	225	286
Chiba	335	284
Hokkaido	218	280
Tottori	261	278
Miyazaki	266	278
Tokyo	202	277
Shimane	362	277
Tochigi	424	277
Fukuoka	166	276
Ibaraki	262	274
Yamagata	294	273
Hiroshima	190	270
Akita	272	269
Fukui	285	269
Okinawa	214	268
Nara	244	263
Toyama	270	263
Oita	290	263
Ehime	322	262
Hyogo	306	262
Gunma	258	262
Kagawa	312	261
Gifu	399	257
Ishikawa	302	256
Kagoshima	190	254
Kyoto	145	254
Okayama	209	253
Saga	247	252
Nagasaki	198	249
Yamaguchi	256	248
Shizuoka	261	243
Shiga	209	240
Mie	227	240
Aichi	232	238
Wakayama	243	232
Osaka	200	227
Total	11,864	270

*Age-adjusted value

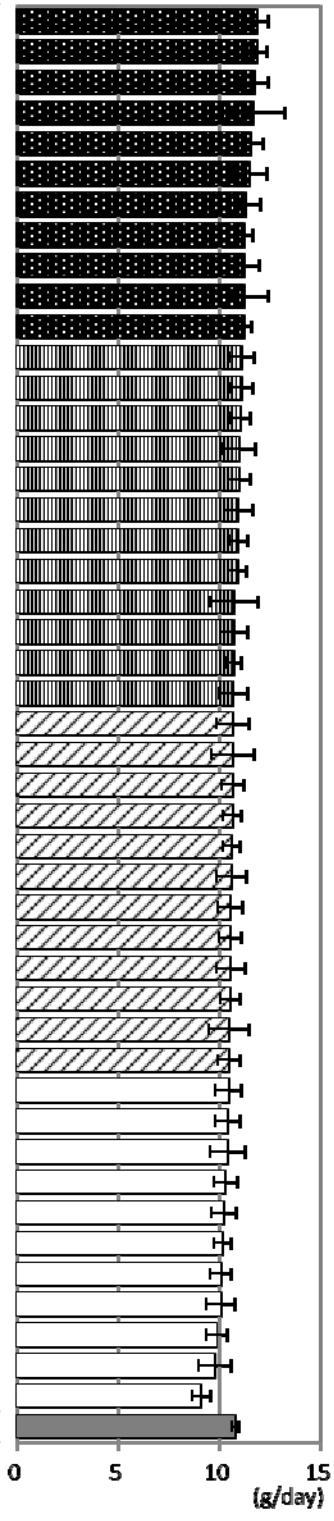


3. The mean salt intake

Men (20 years and over)

Prefecture	n	Mean (g/day) *
Miyagi	193	11.9
Fukushima	210	11.9
Nagano	288	11.8
Fukuoka	130	11.7
Akita	231	11.6
Ishikawa	252	11.5
Kagoshima	155	11.3
Aomori	267	11.3
Niigata	287	11.3
Hiroshima	149	11.2
Ibaraki	228	11.2
Shimane	289	11.1
Chiba	278	11.1
Yamanashi	187	11.1
Tokyo	164	11.0
Yamagata	235	11.0
Toyama	224	11.0
Saitama	285	11.0
Gunma	252	10.9
Kyoto	117	10.7
Iwate	188	10.7
Gifu	361	10.7
Miyazaki	219	10.7
Hokkaido	167	10.7
Yamaguchi	221	10.7
Mie	199	10.7
Ehime	255	10.7
Tochigi	395	10.6
Wakayama	205	10.6
Aichi	195	10.6
Saga	192	10.6
Kagawa	256	10.6
Nara	209	10.6
Nagasaki	152	10.5
Fukui	239	10.5
Hyogo	260	10.5
Kanagawa	133	10.4
Oita	228	10.4
Tottori	220	10.3
Shizuoka	207	10.3
Tokushima	264	10.2
Shiga	182	10.1
Okayama	172	10.1
Osaka	136	9.9
Kochi	130	9.8
Okinawa	181	9.1
Total	9,987	10.8

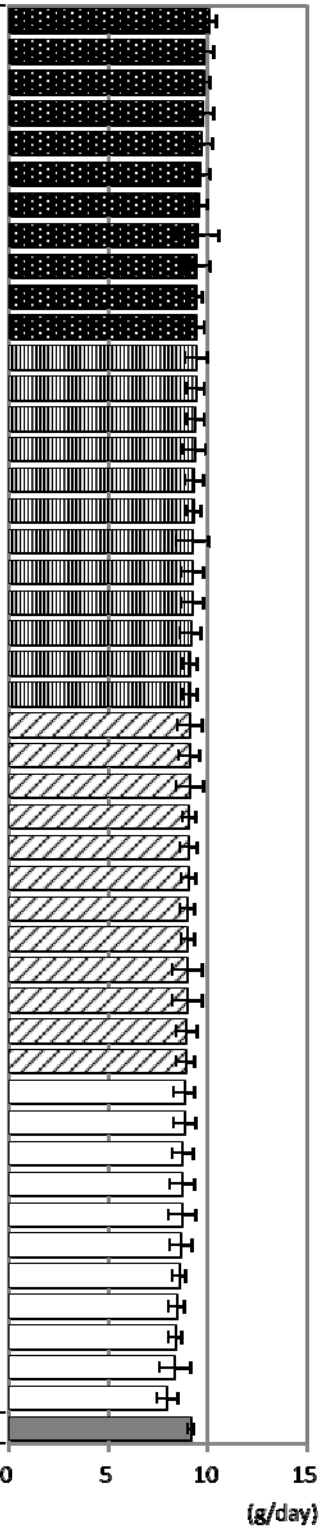
*Age-adjusted value



Women (20 years and over)

Prefecture	n	Mean (g/day) *
Nagano	329	10.1
Fukushima	248	9.9
Yamagata	294	9.8
Aomori	318	9.7
Chiba	335	9.7
Akita	272	9.6
Shimane	362	9.6
Fukuoka	166	9.5
Miyazaki	266	9.4
Ibaraki	262	9.4
Saitama	293	9.4
Niigata	330	9.4
Miyagi	208	9.4
Yamanashi	234	9.4
Kagoshima	190	9.3
Aichi	232	9.3
Gunma	258	9.3
Iwate	225	9.3
Kanagawa	142	9.2
Nara	244	9.2
Ishikawa	302	9.2
Ehime	322	9.1
Hokkaido	218	9.1
Hyogo	306	9.1
Fukui	285	9.1
Tokyo	202	9.1
Tokushima	300	9.1
Shizuoka	261	9.0
Tochigi	424	9.0
Mie	227	9.0
Gifu	399	9.0
Kyoto	145	9.0
Hiroshima	190	9.0
Toyama	270	8.9
Tottori	261	8.9
Oita	290	8.8
Wakayama	243	8.8
Saga	247	8.7
Nagasaki	198	8.7
Shiga	209	8.7
Yamaguchi	256	8.7
Kagawa	312	8.6
Okayama	209	8.4
Kochi	166	8.4
Osaka	200	8.4
Okinawa	214	8.0
Total	11,864	9.2

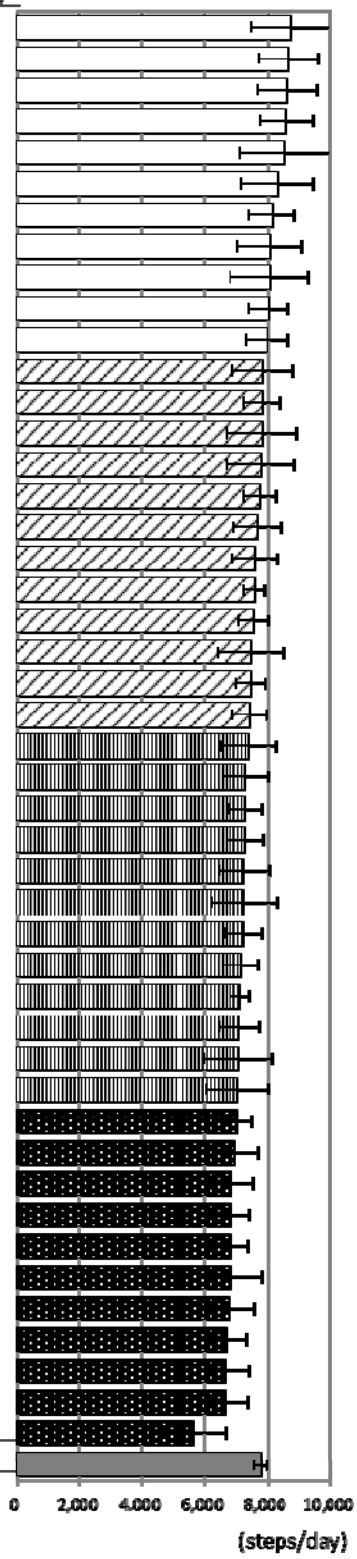
*Age-adjusted value



4. The mean number of steps per day

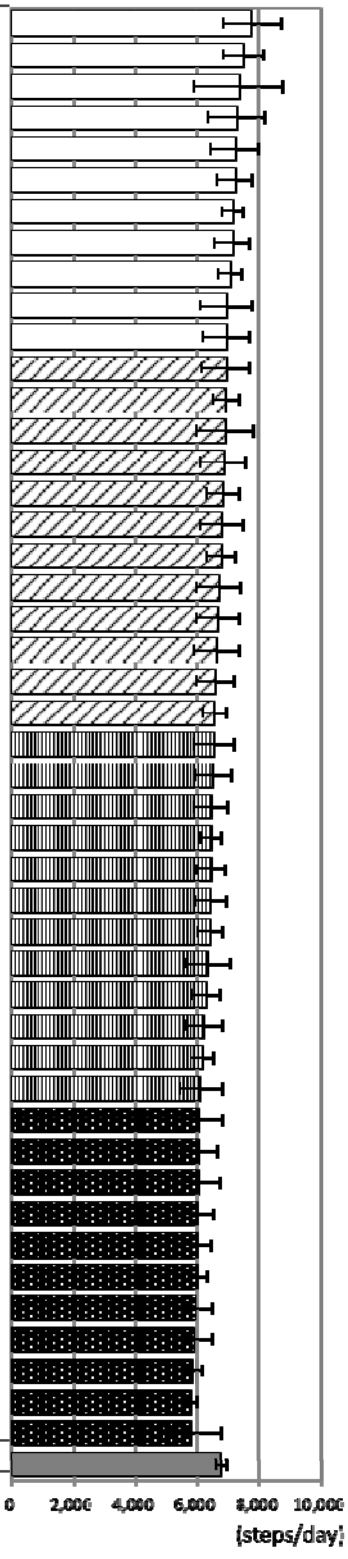
Men (20–64 years)

Prefecture	n	Mean (steps/day)*
Osaka	79	8,762
Shizuoka	132	8,676
Nara	120	8,631
Tokyo	95	8,611
Kyoto	60	8,572
Saitama	162	8,310
Okayama	104	8,136
Chiba	169	8,075
Kanagawa	78	8,056
Aichi	109	8,035
Gifu	220	7,990
Ehime	128	7,845
Hiroshima	64	7,829
Yamaguchi	116	7,817
Hyogo	111	7,782
Shiga	92	7,760
Kagawa	148	7,696
Oita	115	7,599
Tochigi	251	7,582
Fukui	137	7,551
Fukuoka	78	7,474
Aomori	169	7,472
Ibaraki	128	7,445
Hokkaido	112	7,381
Fukushima	120	7,297
Kagoshima	92	7,296
Saga	105	7,283
Ishikawa	133	7,254
Toyama	95	7,247
Yamanashi	107	7,236
Nagano	144	7,148
Mie	139	7,119
Yamagata	134	7,098
Nagasaki	64	7,061
Niigata	172	7,029
Miyazaki	119	7,022
Gunma	170	6,964
Okinawa	108	6,850
Shimane	163	6,820
Miyagi	103	6,803
Tokushima	146	6,791
Wakayama	82	6,743
Tottori	143	6,698
Iwate	101	6,626
Akita	121	6,626
Kochi	60	5,647
Total	5,598	7,779



Women (20–64 years)

Prefecture	n	Mean (steps/day)*
Kanagawa	92	7,795
Kyoto	83	7,524
Hiroshima	75	7,357
Shiga	108	7,292
Tokyo	115	7,250
Gifu	220	7,234
Osaka	116	7,186
Fukuoka	109	7,155
Chiba	207	7,086
Shizuoka	147	6,975
Yamaguchi	131	6,969
Oita	140	6,954
Ehime	188	6,945
Nagasaki	99	6,929
Saitama	169	6,880
Yamanashi	128	6,838
Hyogo	151	6,813
Nara	135	6,787
Fukui	144	6,732
Kagoshima	115	6,700
Saga	120	6,635
Nagano	171	6,606
Tochigi	265	6,583
Shimane	192	6,549
Akita	137	6,541
Ibaraki	145	6,471
Fukushima	138	6,470
Ishikawa	152	6,465
Mie	151	6,460
Gunma	165	6,430
Miyagi	117	6,354
Tokush	176	6,313
Kagawa	165	6,260
Niigata	196	6,186
Iwate	110	6,132
Aichi	128	6,077
Toyama	120	6,074
Wakayama	106	6,062
Okinawa	122	6,052
Hokkaido	144	6,051
Okayama	132	6,042
Aomori	194	6,010
Miyazaki	140	5,939
Yamagata	166	5,893
Tottori	154	5,857
Kochi	77	5,840
Total	6,554	6,776

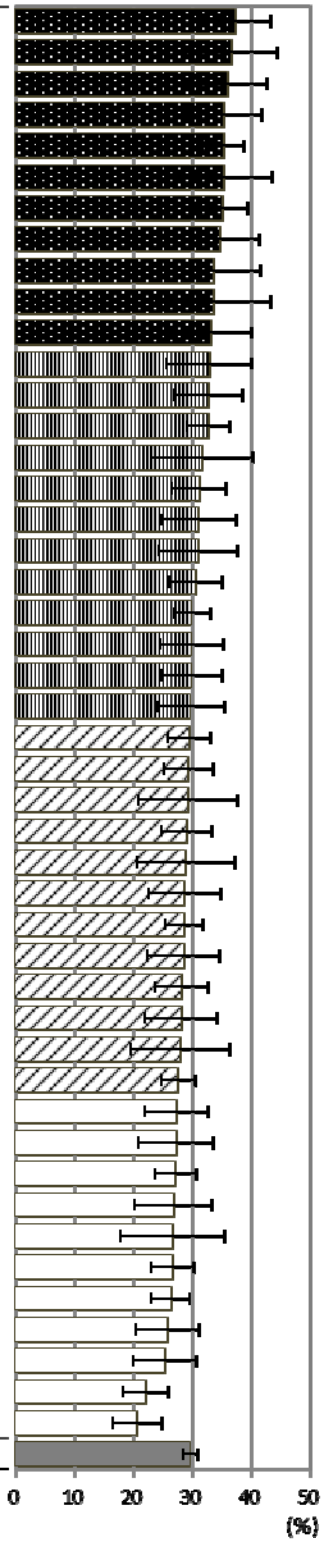


5. Proportion of Regular Smoker

Men (20 years and over)

Prefecture	n	Ratio (%)*
Gunma	271	37.3
Fukui	264	36.6
Hokkaido	212	35.9
Nagasaki	215	35.3
Tochigi	452	35.3
Fukushima	265	35.2
Mie	247	35.1
Yamanashi	216	34.7
Aomori	328	33.6
Ibaraki	261	33.6
Saga	206	33.2
Yamagata	279	32.8
Akita	257	32.7
Tottori	273	32.7
Hiroshima	175	31.7
Miyagi	258	31.1
Chiba	366	31.1
Iwate	217	30.9
Kyoto	170	30.6
Nagano	340	30.0
Ehime	272	29.9
Niigata	331	29.9
Wakayama	235	29.7
Yamaguchi	282	29.5
Osaka	158	29.3
Tokyo	221	29.2
Ishikawa	268	29.1
Kochi	162	28.9
Shizuoka	271	28.6
Kagoshima	209	28.6
Shimane	317	28.5
Saitama	312	28.2
Miyazaki	235	28.1
Okayama	230	27.9
Aichi	224	27.5
Gifu	395	27.3
Toyama	232	27.2
Okinawa	243	27.2
Kanagawa	138	26.8
Fukuoka	147	26.6
Kagawa	324	26.5
Tokushima	337	26.3
Hyogo	300	25.8
Oita	254	25.3
Nara	230	22.0
Shiga	218	20.6
Total	11,817	29.7

*Age-adjusted value



Part III. Results of basic items
Chapter 1. Physical Condition

1. Status Regarding Obesity and Underweight

The proportion of obese men and women (BMI ≥ 25 kg/m^2) was 31.3% and 20.6%, respectively, with no significant change over the past 10 years in both the sexes.
The proportion of underweight men and women (BMI < 18.5 kg/m^2) was 4.4% and 11.6%, respectively, with a significant increase in the number of women, over the past 10 years. Additionally, the proportion of underweight women aged 20-29 years was 20.7%.
The proportion of elderly individuals aged 65 years or above with low BMI (≤ 20 kg/m^2) was 17.9%. It was 12.8% and 22.0% among men and women, respectively. During the past 10 years, there has been no significant change in the proportion of men, but a significant increase among women has been observed. Moreover, the proportion of individuals aged 85 years and over with BMI ≤ 20 kg/m2 was high in both among men and women.

Evaluation of obesity: BMI (Body mass index[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).

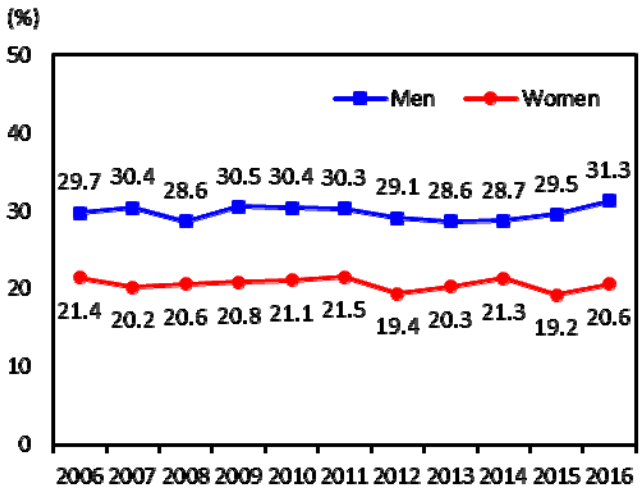


Figure 5-1. Annual Changes in Proportion of Obesity (BMI ≥ 25 kg/m^2) (aged 20 years and over) (2006 to 2016)

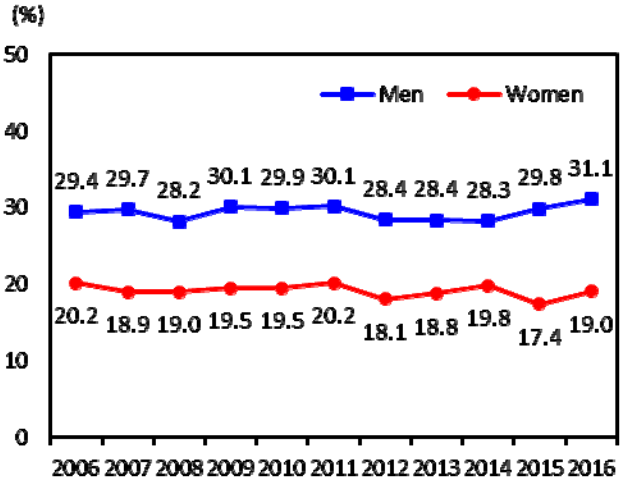


Figure 5-2. Annual Changes in the Age-adjusted Proportion of Obesity (BMI ≥ 25 kg/m^2) (aged 20 years and over) (2006 to 2016)
* Pregnant women excluded

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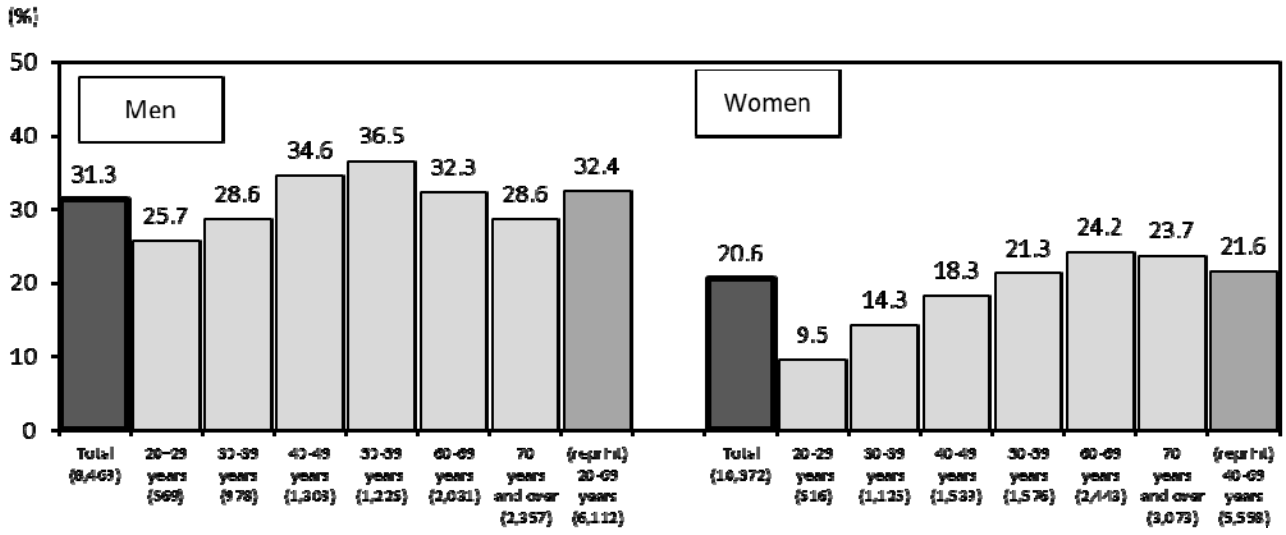

Figure 6. Proportion of Obesity (BMI ≥ 25 kg/m^2) (aged 20 years and over, based on sex and age, adjusted national values).

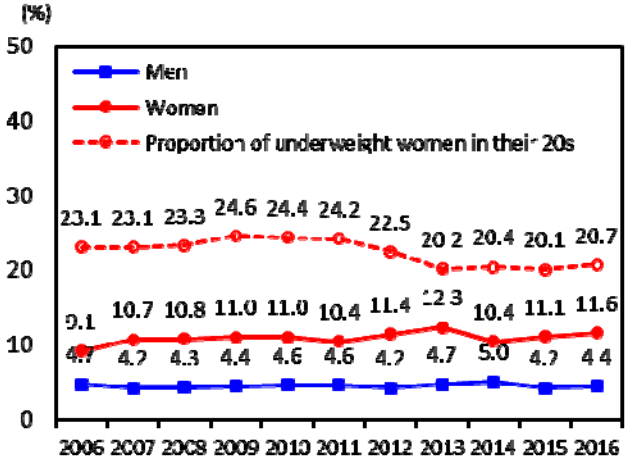

Figure 7-1. Annual Changes in the Proportion of Underweight Persons (BMI < 18.5 kg/m^2) (aged 20 years and over) (2006 to 2016)

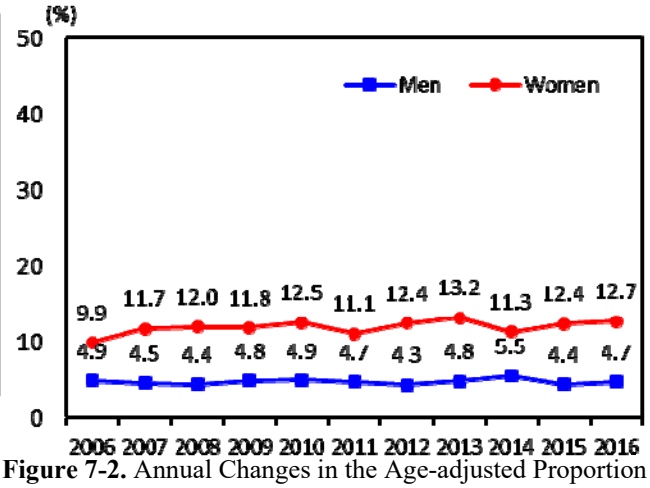

Figure 7-2. Annual Changes in the Age-adjusted Proportion of Underweight Persons (BMI < 18.5 kg/m^2) (aged 20 years and over) (2006 to 2016)

* Pregnant women excluded.
* Annual changes in the proportion of underweight women aged 20-29 years was calculated based on the results standardized with moving averages.
* Moving average: to minimize the variation of the results on the graphs, the mean of the annual results and those before and after the year were calculated. However, in the case of 2016, the results of single year data were represented.

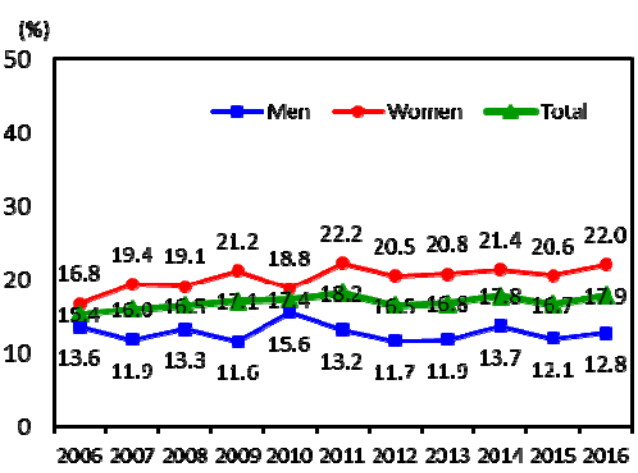

Figure 8-1. Annual Changes in the Proportion of Persons with Malnutrition (BMI ≤ 20 kg/m^2) (aged 65 years and over) (2006 to 2016)

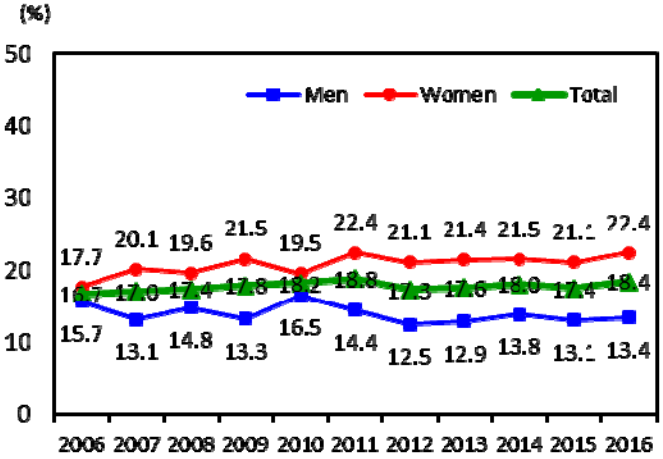

Figure 8-2. Annual Changes in the Age-adjusted Proportion of Persons with Malnutrition (BMI ≤ 20 kg/m^2) (aged 65 years and over) (2006 to 2016)

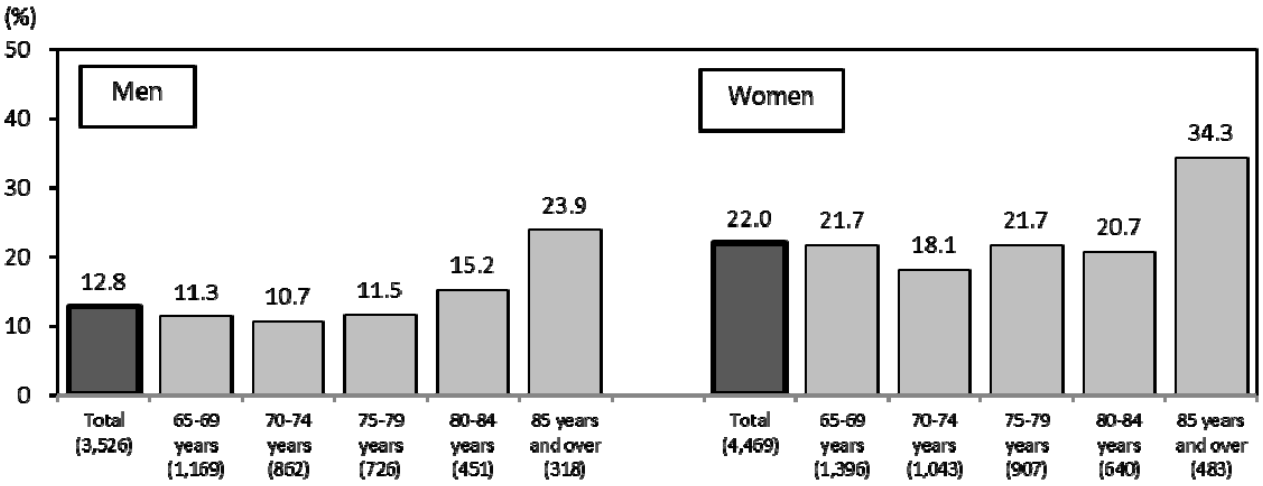

Figure 9. Proportion of Persons with Malnutrition (BMI ≤ 20 kg/m^2) (aged 65 years and over, based on sex and age, adjusted national values)

2. Status Regarding Diabetes

The proportion of "persons in whom diabetes is strongly suspected" was 16.3% and 9.3%, respectively, among men and women, which has not changed significantly in the past 10 years. The proportion was higher in the older age category.

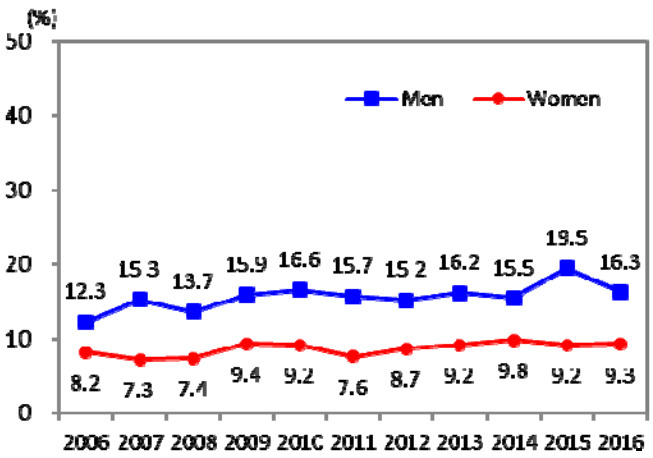

Figure 10-1. Annual Changes in the Proportion of "Persons in Whom Diabetes is Strongly Suspected" (aged 20 years and over) (2006 to 2016)

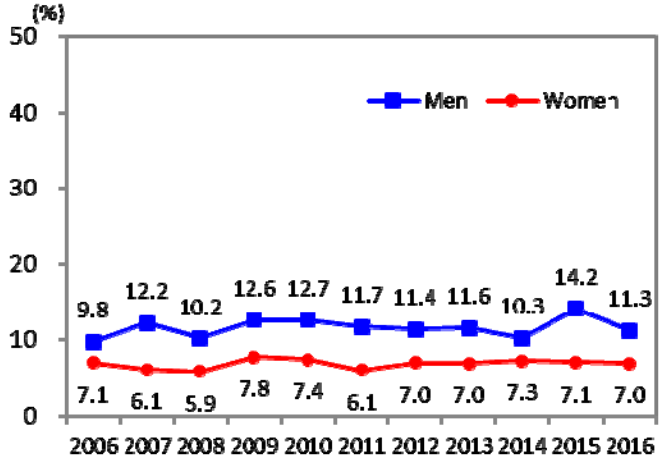

Figure 10-2. Annual Changes in the Age-adjusted Proportion of "Persons in Whom Diabetes is Strongly Suspected" (aged 20 years and over) (2006 to 2016)

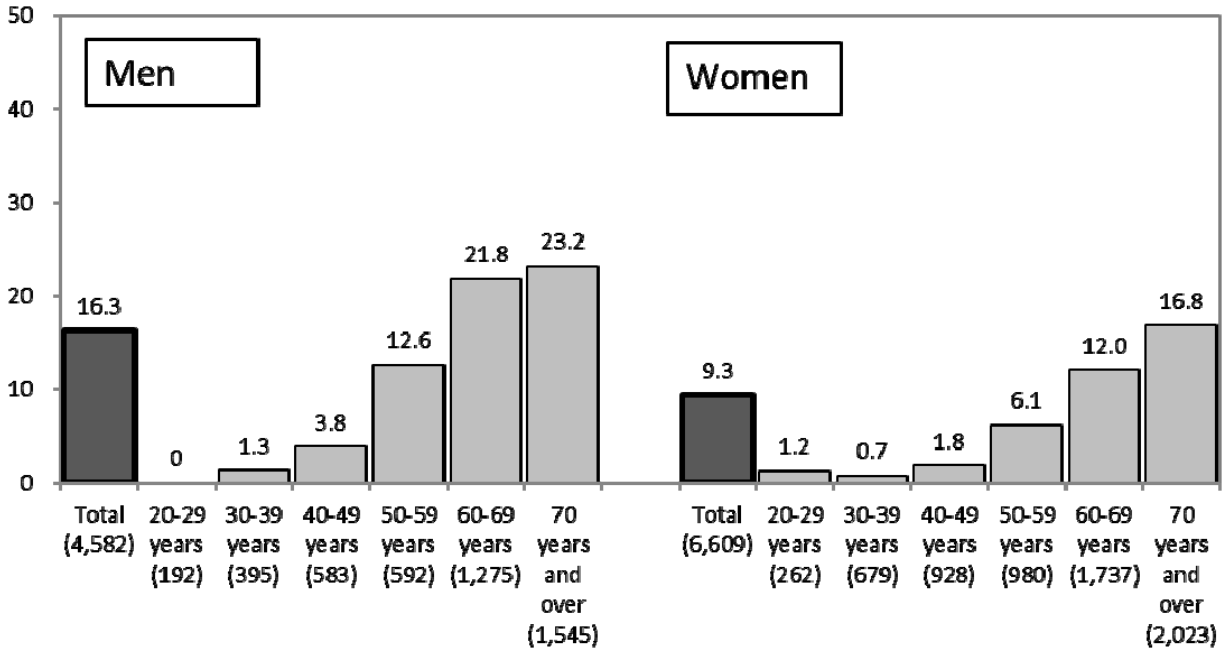

Figure 11. The Proportion of "persons in whom diabetes is strongly suspected" (aged 20 years and older, based on sex and age, adjusted national values)

3. Status Regarding Blood Pressure

The mean systolic blood pressure in men and women were 134.3 and 127.3 mmHg, respectively. The values in both men and women have significantly decreased over the past 10 years.
The proportion of persons with a systolic blood pressure of 140 mmHg or higher in men and women were 34.6% and 24.8%, respectively. These values have decreased significantly in both men and women over the past 10 years.

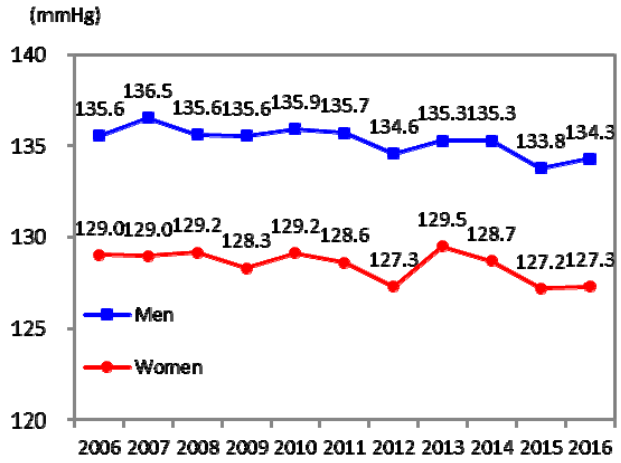

Figure 12-1. Annual Changes in the Mean Systolic Blood Pressure (aged 20 years and over) (2006 to 2016)

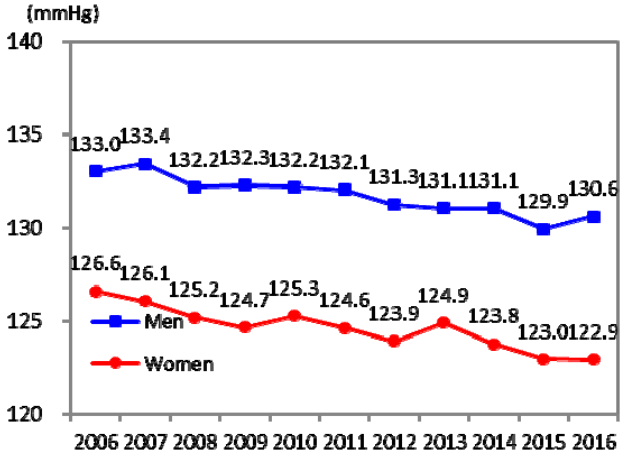

Figure 12-2. Annual Changes in the Age-adjusted Mean Systolic Blood Pressure (aged 20 years and over) (2006 to 2016)

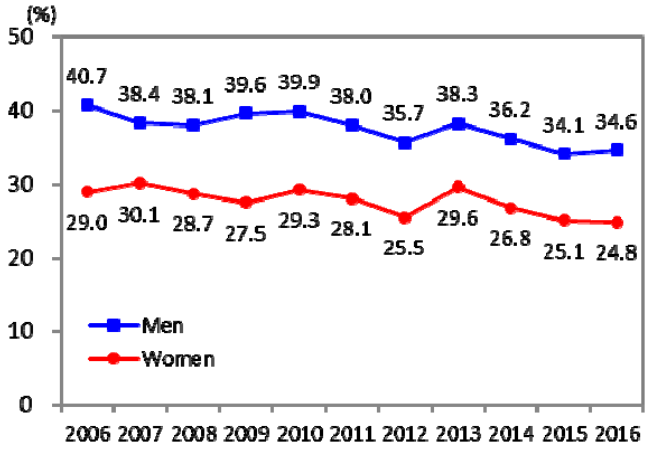

Figure 13-1. Annual Changes in the Proportion of Persons with a Systolic Blood Pressure of 140 mmHg or Higher (aged 20 years and over) (2006 to 2016)

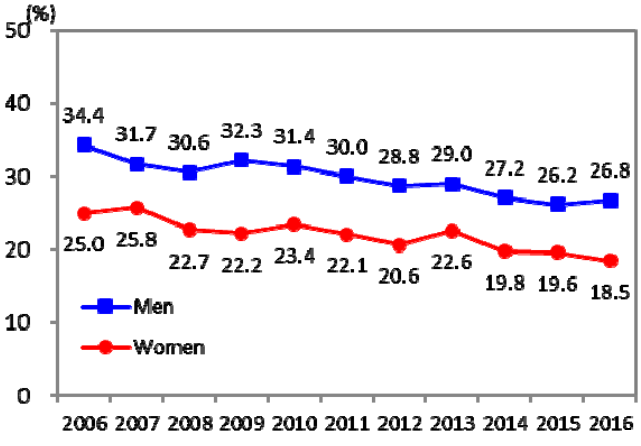

Figure 13-2. Annual Changes in the Age-adjusted Proportion of Persons with a Systolic Blood Pressure of 140 mmHg or Higher (aged 20 years and over) (2006 to 2016)

* Shown are the mean values of two measurements.
* In persons in whom the blood pressure was measured only once, the single value was adopted.

4. Status Regarding Blood Cholesterol

The mean serum total cholesterol levels in men and women were 196.3 and 207.6 mg/dL, respectively. There was no significant change in these levels over the past 10 years.
The proportion of persons with a serum total cholesterol level of 240 mg/dL or higher in men and women were 9.8% and 17.3%, respectively. There was no significant change in these proportions over the past 10 years.

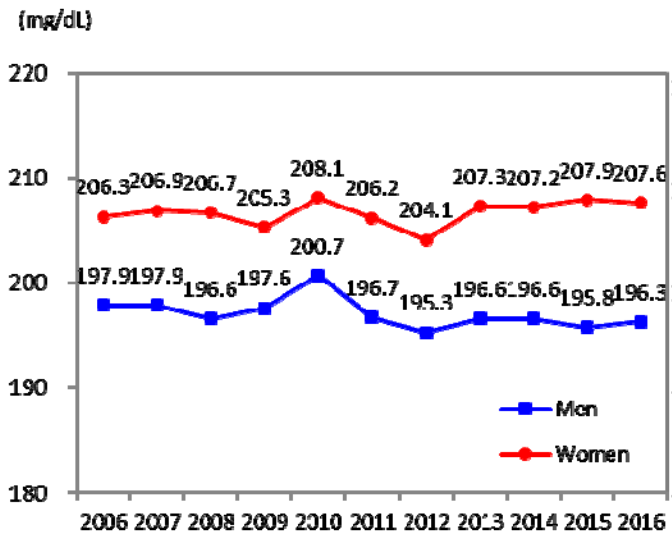

Figure 14-1. Annual Changes in the Mean Serum Total Cholesterol Level (aged 20 years and over) (2006 to 2016)

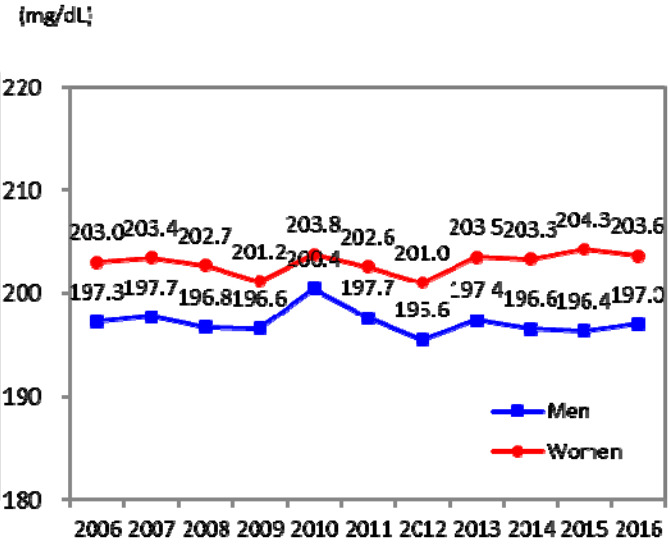

Figure 14-2. Annual Changes in the Age-adjusted Mean Serum Total Cholesterol Level (aged 20 years and over) (2006 to 2016)

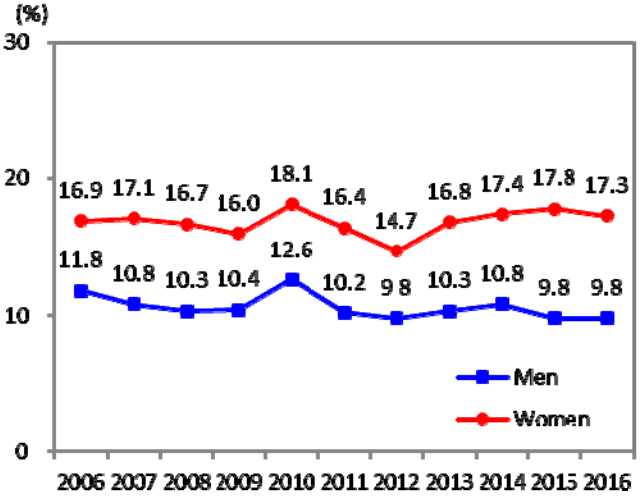

Figure 15-1. Annual Changes in the Proportion of Persons with Serum Total Cholesterol Level of 240 mg/dL or Higher (aged 20 years and over) (2006 to 2016)

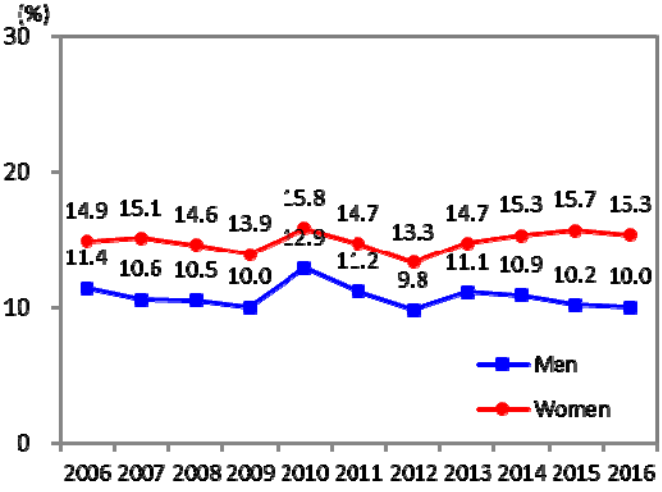

Figure 15-2. Annual Changes in the Age-adjusted Proportion of Persons with Serum Total Cholesterol Level of 240 mg/dL or Higher (aged 20 years and over) (2006 to 2016)

Chapter 2. Status Regarding Nutrition/Dietary Habits

1. Salt Intake

The mean salt intake for all participants was 9.9 g. It was 10.8 g in men and 9.2 g in women. These values show a significant decrease in all participants, men and women over the past 10 years.

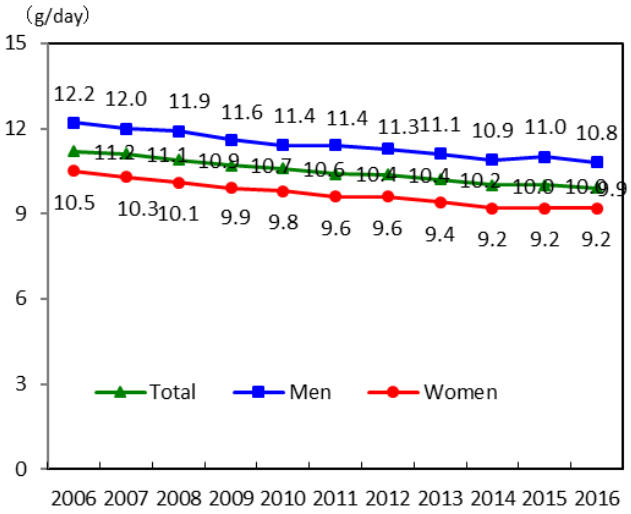

Figure 16-1. Annual Changes in the Mean Salt Intake (aged 20 years and over) (2006 to 2016)

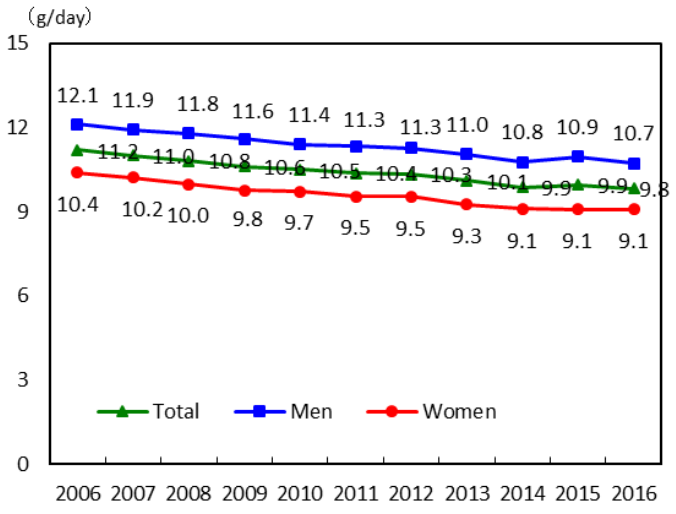

Figure 16-2. Annual Changes in the Age-adjusted Mean Salt Intake (aged 20 years and over) (2006 to 2016)

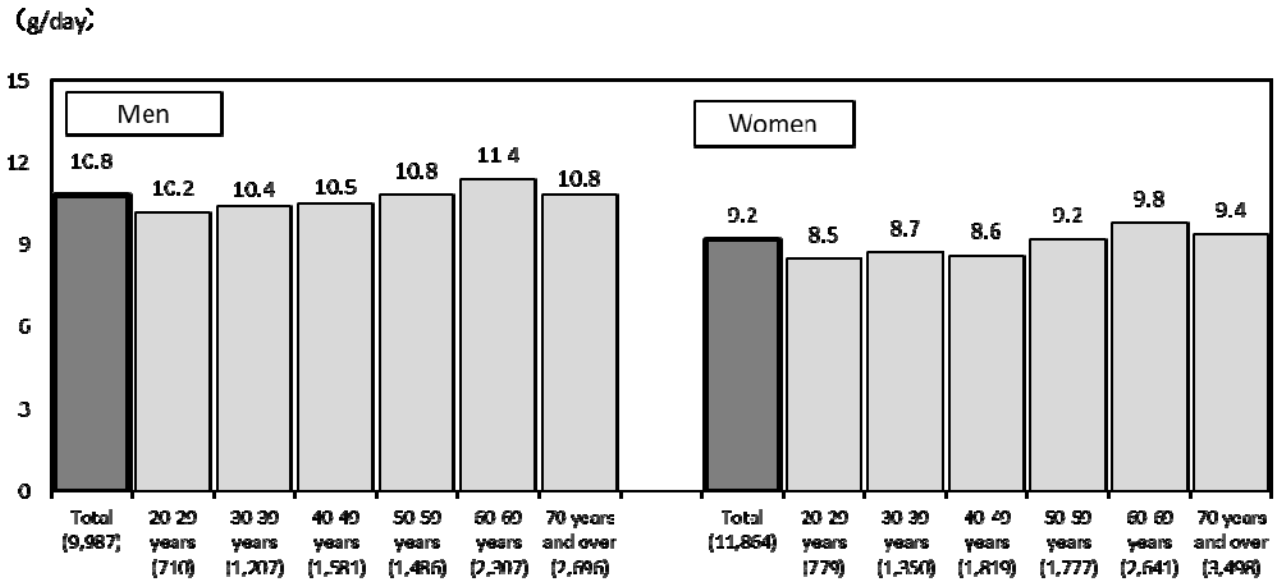

Figure 17. Mean Salt Intake (aged 20 years and over, based on age and sex, adjusted national values)

2. Vegetable Intake

The mean vegetable intake was 276.5 g in all participants, and 283.7 g and 270.5 g in men and women, respectively. A significant decrease was observed in all, male and female participants over the past 10 years.
The persons aged 20 to 29 years had the lowest vegetable intake, whereas those aged 60 to 69 years had the highest intake among both men and women.

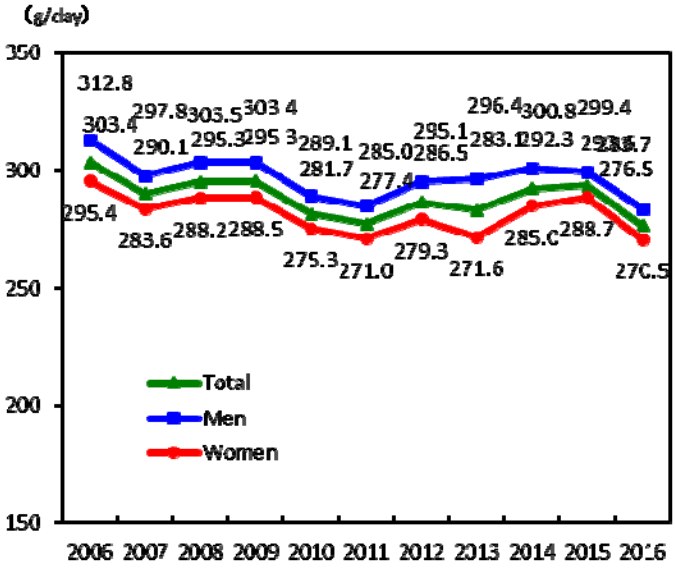

Figure 18-1. Annual Changes in the Mean Vegetable Intake (aged 20 years and older) (2006 to 2016)

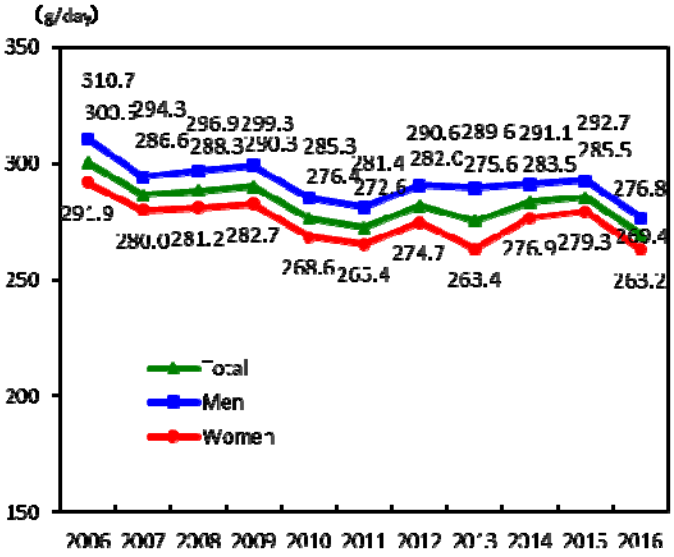

Figure 18-2. Annual Changes in the Age-adjusted Mean Vegetable Intake (aged 20 years and older) (2006 to 2016)

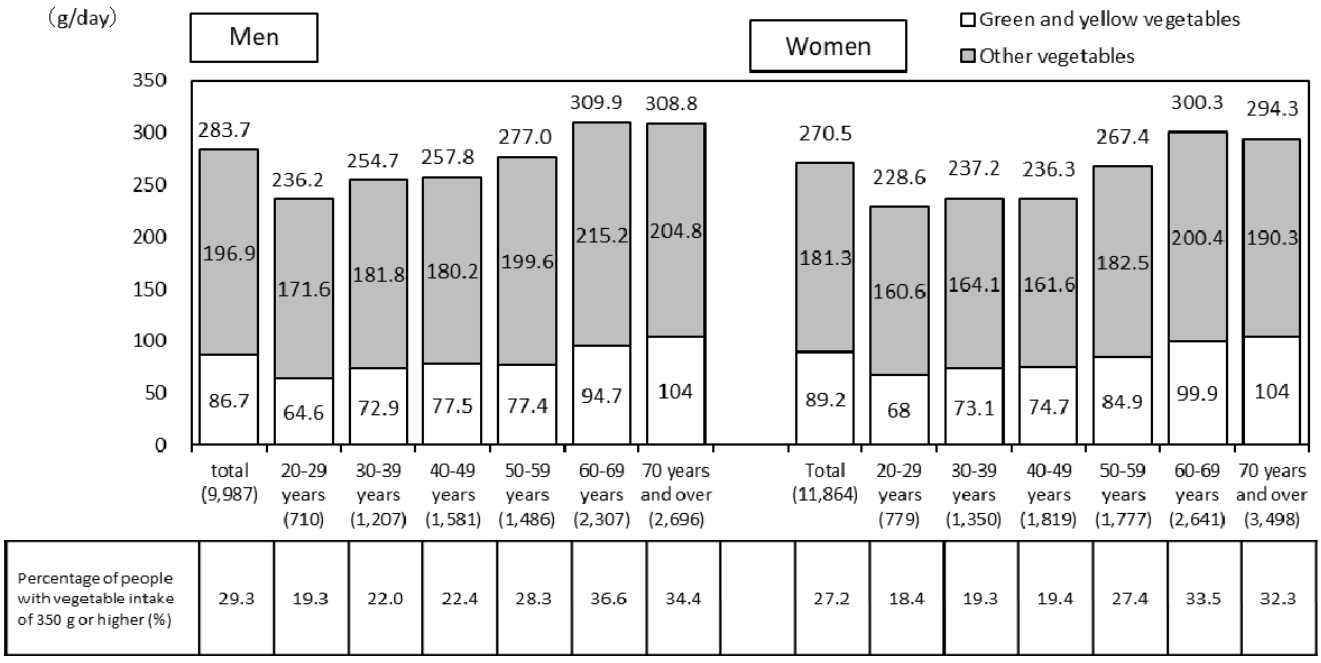

Figure 19. Mean Vegetable Intake (aged 20 years and over, based on age and sex, adjusted national values)

3. Breakfast Skipping

The breakfast skipping rate among men and women were 15.4% and 10.7%, respectively. The highest proportion of persons skipping breakfast were observed in persons aged 20 to 29 years in both men (37.4%) and women (23.1%).
The breakfast skipping rate was defined as the proportion of individuals who skipped breakfast on the day of the survey (single day).
Skipping breakfast refers any of the following: not eating at all, consuming only supplements such as tablets or nutrition-supplement liquids, or consuming only foods/drinks such as confectionery, fruits, dairy products, or soft drinks.

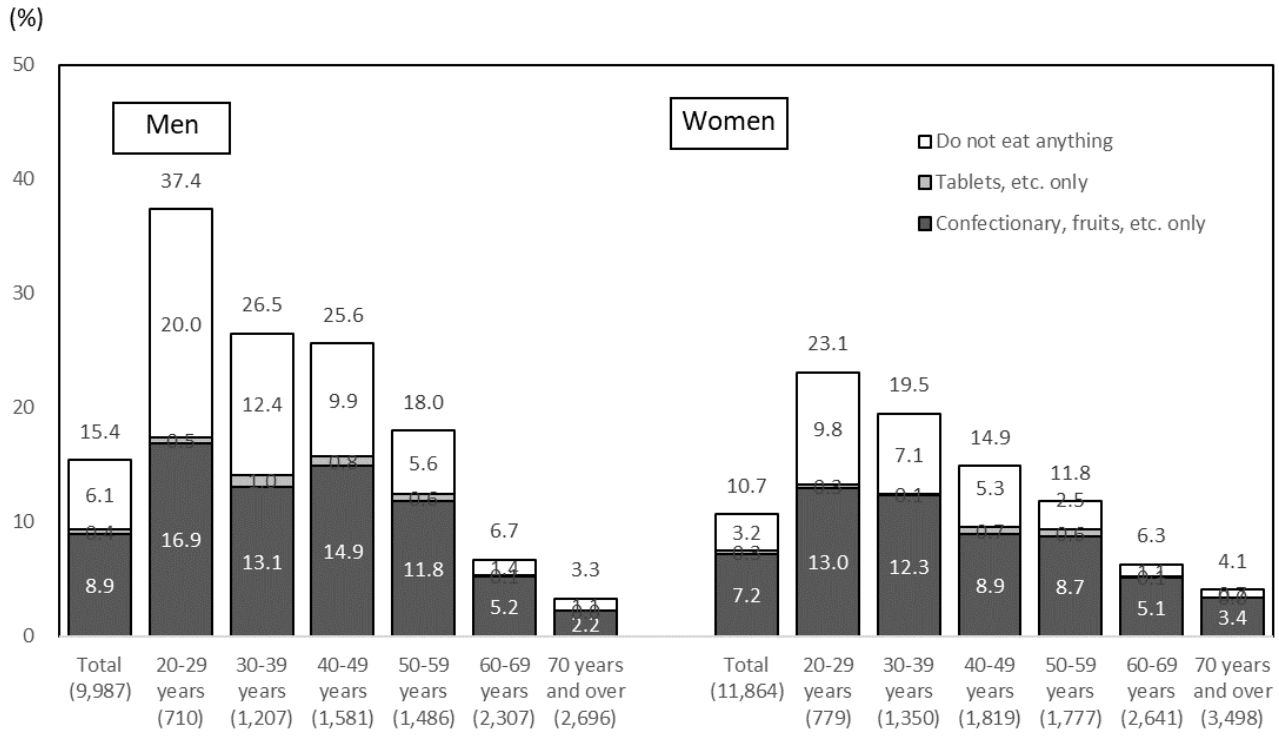

Figure 20. Details of Breakfast Skipping (aged 20 years and over, based on age and sex, adjusted national values)

Table 4. Annual Changes in Breakfast Skipping Rate (aged 20 years and over, based on age and sex) (2006 to 2016)

		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Men	Total	14.2	14.7	15.8	15.5	15.2	16.1	14.2	14.4	14.3	14.3	15.4
	20-29 years	30.5	28.6	30.0	33.0	29.7	34.1	29.5	30.0	37.0	24.0	37.4
	30-39 years	22.8	30.2	27.7	29.2	27.0	31.5	25.8	26.4	29.3	25.6	26.5
	40-49 years	20.8	17.9	25.7	19.3	20.5	23.5	19.6	21.1	21.9	23.8	25.6
	50-59 years	13.1	11.8	15.1	12.4	13.7	15.0	13.1	17.8	13.4	16.4	18.0
	60-69 years	5.8	7.4	8.1	9.1	9.2	6.3	7.9	6.6	8.5	8.0	6.7
	70 years and over	2.2	3.4	4.6	4.9	4.2	3.7	3.9	4.1	3.2	4.2	3.3
Women	Total	8.9	10.5	12.8	10.9	10.9	11.9	9.7	9.8	10.5	10.1	10.7
	20-29 years	22.5	24.9	26.2	23.2	28.6	28.8	22.1	25.4	23.5	25.3	23.1
	30-39 years	13.9	16.3	21.7	18.1	15.1	18.1	14.8	13.6	18.3	14.4	19.5
	40-49 years	11.0	12.8	14.8	12.1	15.2	16.0	12.1	12.2	13.5	13.7	14.9
	50-59 years	7.7	9.7	13.4	10.6	10.4	11.2	9.2	13.8	10.7	11.8	11.8
	60-69 years	4.6	5.1	8.6	7.2	5.4	7.6	6.5	5.2	7.4	6.7	6.3
	70 years and over	2.2	3.8	5.2	4.7	4.6	3.8	3.6	3.8	4.4	3.8	4.1

Values are presented as percentages.

Chapter 3. Physical Activity, Exercise, and Sleep

1. Exercise Habits

The proportions of persons who exercised regularly was 35.1% and 27.4% in men and women, respectively. These proportions showed no significant change in men over the past 10 years, but showed a decrease in women. The lowest proportion of persons who exercised regularly was among individuals aged 30 to 39 years in both men (18.4%) and women (9.8%).

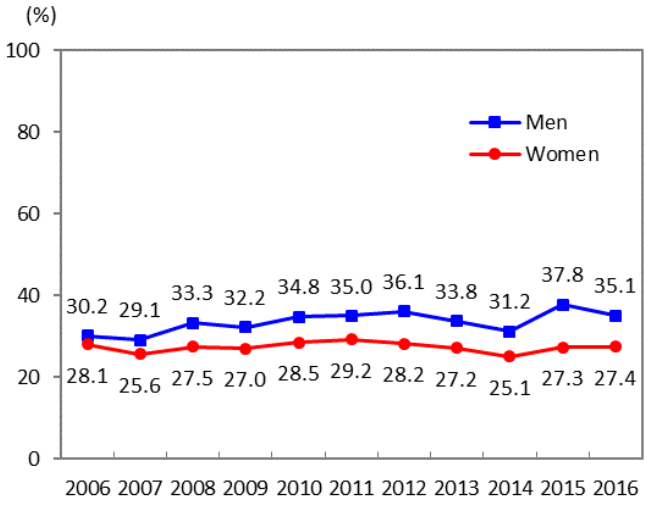

Figure 21-1. Annual Changes in the Proportion of Persons who exercised regularly (aged 20 years and over) (2006 to 2016)

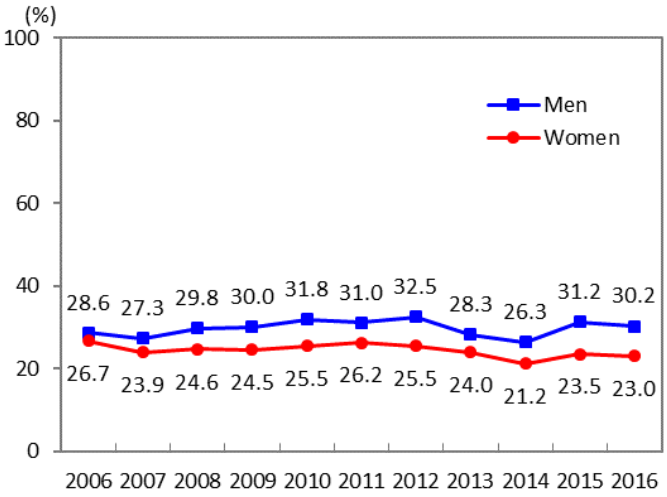

Figure 21-2. Annual Changes in the Age-adjusted Proportion of Persons who exercised regularly (aged 20 years and over) (2006 to 2016)

* Regular exercise was defined as exercise activities for 30 minutes or longer per session, twice a week or more for at least one year.

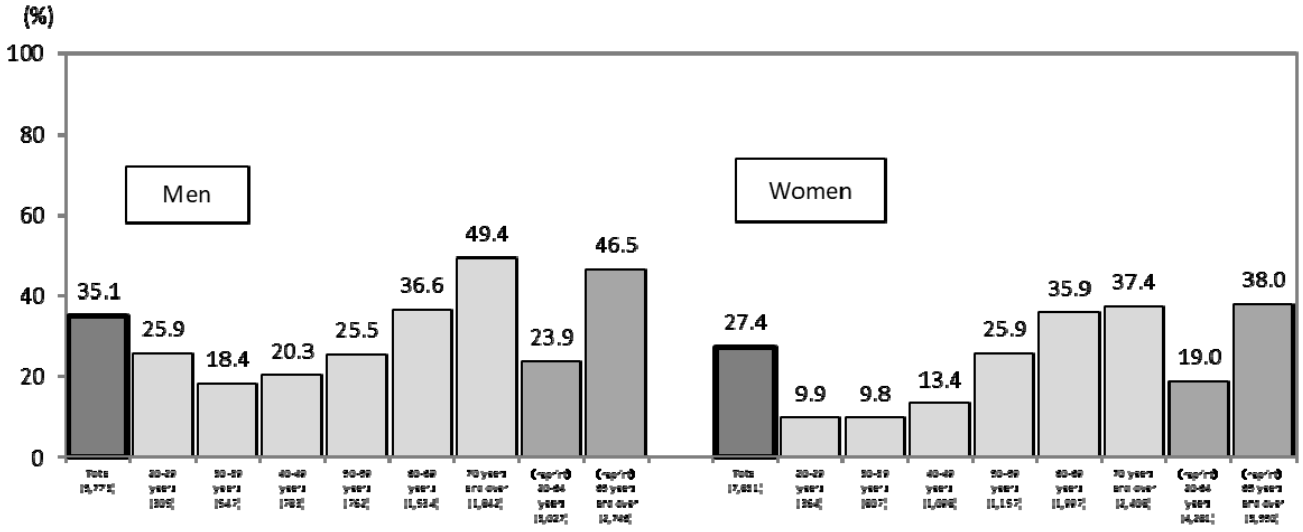

Figure 22. Proportion of Persons with Regular Exercise (aged 20 years and over, based on age and sex, adjusted national values)

2. Number of Steps Taken Daily

The mean number of steps walked by men and women were 6,984 and 6,029, respectively, and these numbers showed no significant changes over the past 10 years.
The mean number of steps for men and women aged 20-64 years was 7,769 and 6,770, respectively, while that for men and women aged 65 years and over was 5,744 and 4,856, respectively.

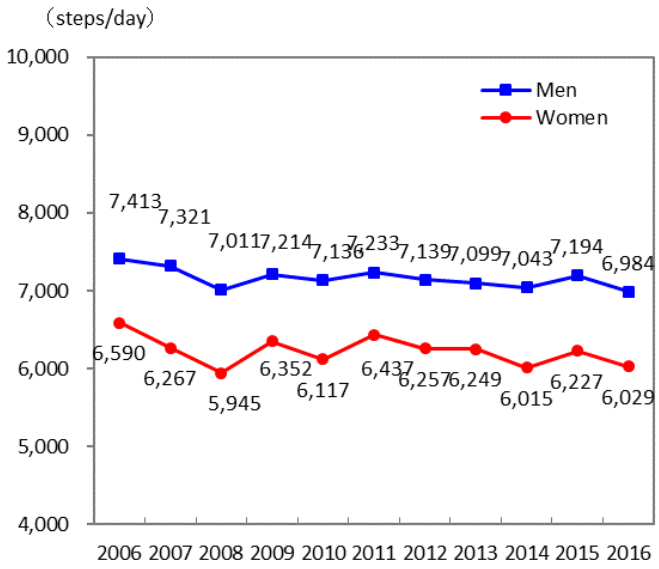

Figure 23-1. Annual Changes in the Mean Number of Steps (aged 20 years and over) (2006 to 2016)

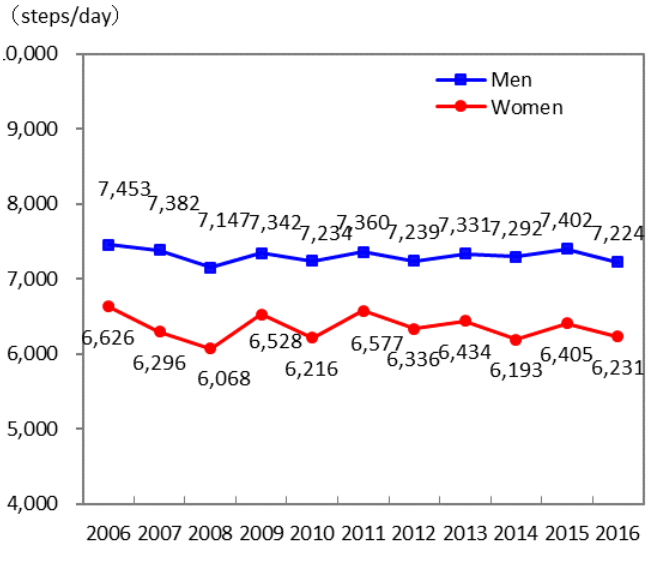

Figure 23-2. Annual Changes in the Age-adjusted Mean Number of Steps (aged 20 years and over) (2006 to 2016)

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

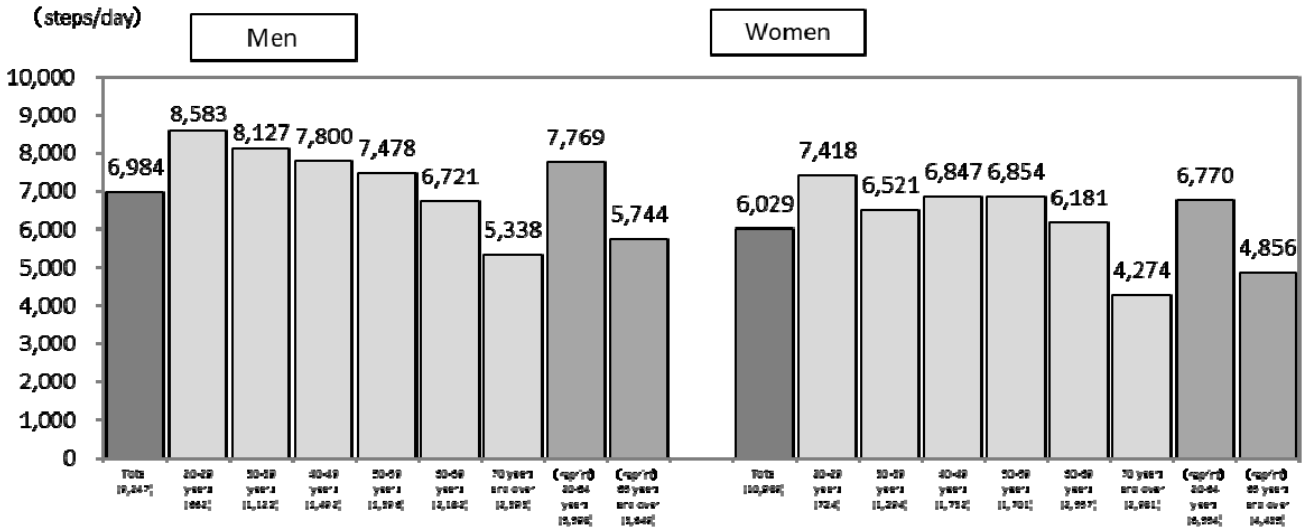

Figure 24. Mean Number of Steps (aged 20 years and over, based on age and sex, adjusted national values)

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

3. Sleep

The proportion of persons with not enough sleep during the past one month was 19.7%. Lack of sleep showed a significantly increasing trend when compared to the findings of the 2009, 2012, 2014, and 2016 surveys. Lack of sleep was highest in both men and women aged 20 to 59 years.

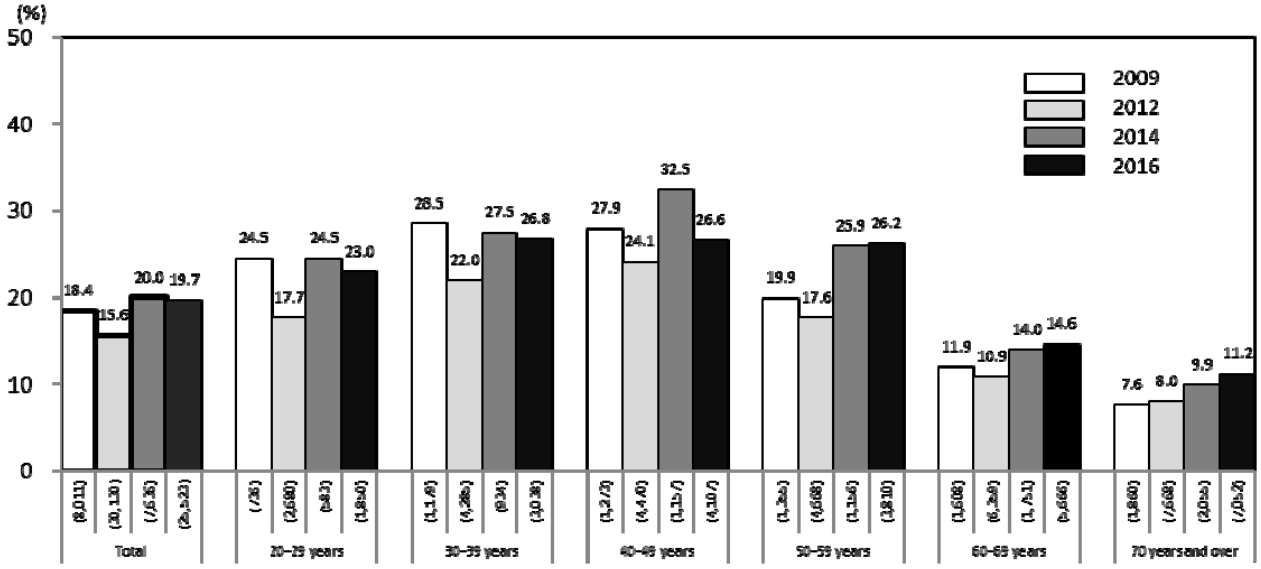

Figure 25. Annual Changes in the Proportion of Persons with not enough Sleep (aged 20 years and over, total of men and women, based on age and sex) (2009, 2012, 2014, and 2016)

Persons with not enough sleep were those who responded that resting during sleep was “not enough” or “no sleep.”
The age-adjusted proportion (total number) of persons with shortage sleep in 2009, 2012, 2014, and 2016 was 19.4%, 16.3%, 21.7%, and 20.9%, respectively. A significant in- crease was observed from 2009 to 2016.

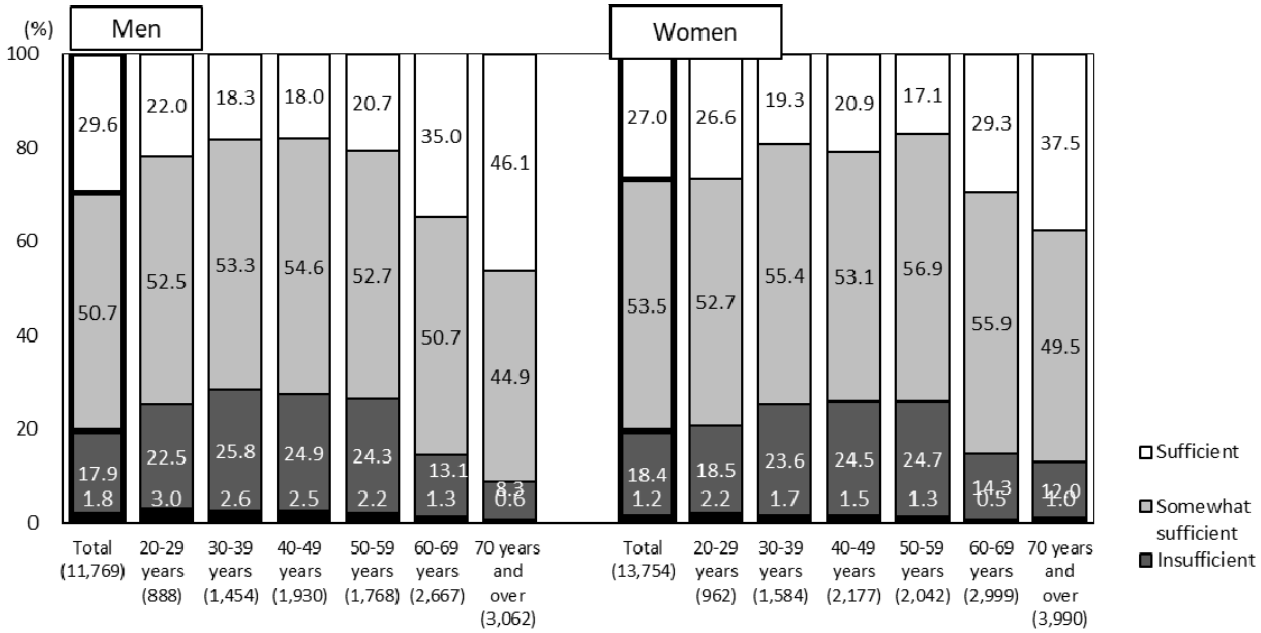

Figure 26. Age-adjusted Proportion of Persons with not enough Sleep (aged 20 years and over, total of men and women, based on age and sex, adjusted national values) (2009, 2012, 2014, and 2016)

Chapter 4. Alcohol Consumption and Smoking Status

1. Alcohol Consumption

The proportions of those who consume alcohol at a level which increases the risk of lifestyle-related diseases were 14.6% and 9.1% in men and women, respectively. Compared to the proportions noted in 2010, there was no significant change in men, but a significant increase was observed in women. The highest proportions were observed in men aged 50 to 59 years and women aged 40 to 49 years.

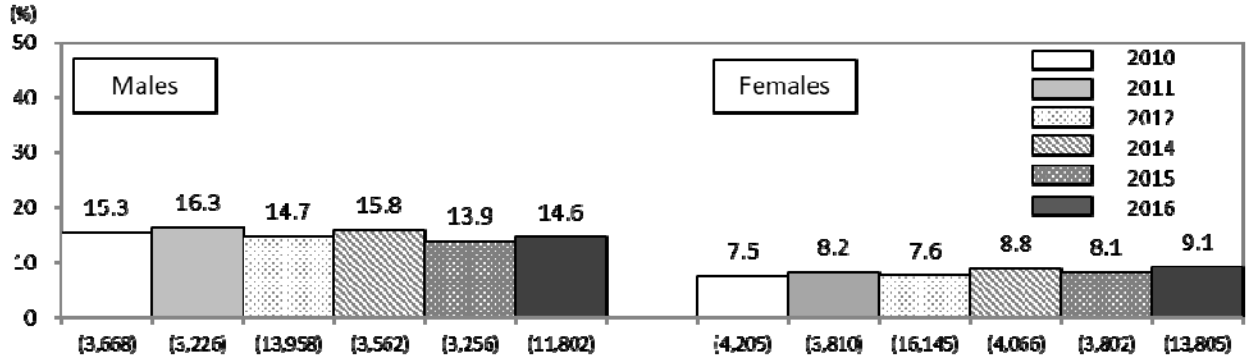

Figure 27. Annual changes in proportion of persons who consume alcohol at a level which increases the risk of lifestyle-related diseases (aged 20 years and over, based on sex) (2010, 2011, 2012, 2014, 2015 and 2016)

"Those who consume alcohol at a level which increases the risk of lifestyle-related diseases" refers to men and women who consumed 40 g or more and 20 g or more, respectively of pure alcohol daily. 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.

The age-adjusted proportions of men and women who consumed alcohol at a level which increases the risk of lifestyle-related diseases were 15.3% and 8.0%, respectively in 2010, 16.5% and 8.9%, respectively in 2011, 14.6% and 7.9%, respectively in 2012, 15.7% and 9.5%, respectively in 2014, 13.6% and 8.6%, respectively in 2015, and 14.7% and 9.5%, respectively in 2016. Compared to the trends from 2010, there was no significant change in men, but a significant increase was observed in women.

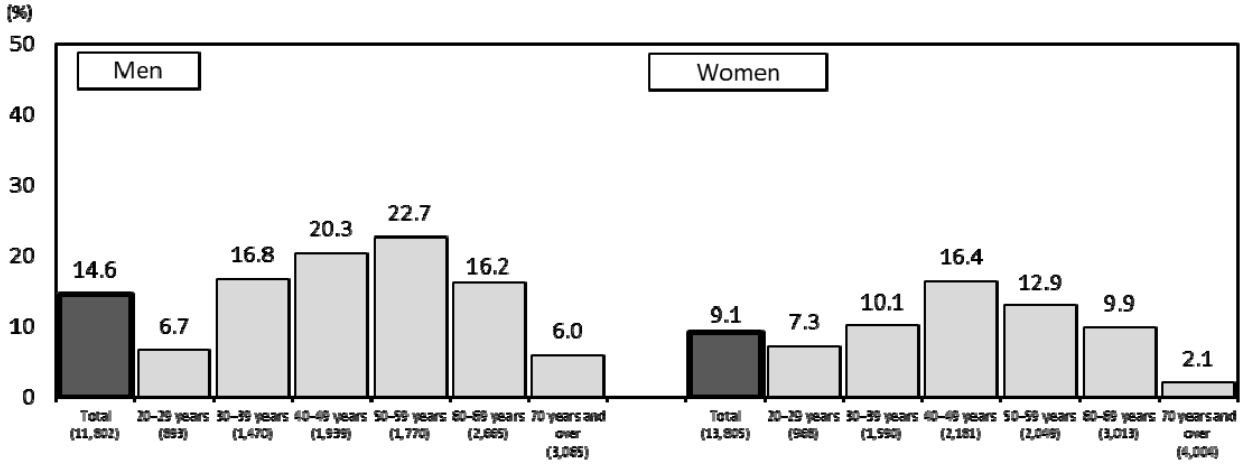

Figure 28. Proportion of persons who consume alcohol at a level which increase the risk of lifestyle-related diseases (aged 20 years and over, based on age and sex, adjusted national values)

2. Smoking Status

The proportion of regular smokers was 18.3%; 30.2% in men and 8.2% in women. There has been a significant decrease in the numbers of regular smokers among both men and women over the past 10 years. The highest proportion of regular smokers were men and women aged 30 to 59 years, and approximately 40% of them were regular smokers.

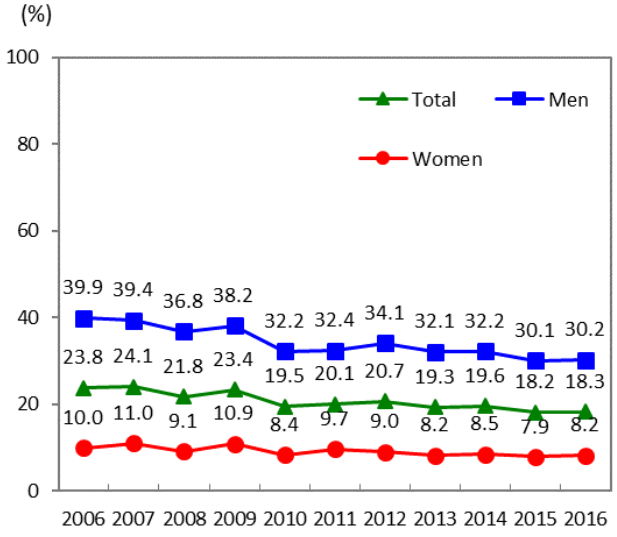

Figure 29-1. Annual changes in the proportion of regular smokers (aged 20 years and over) (2006-2016)

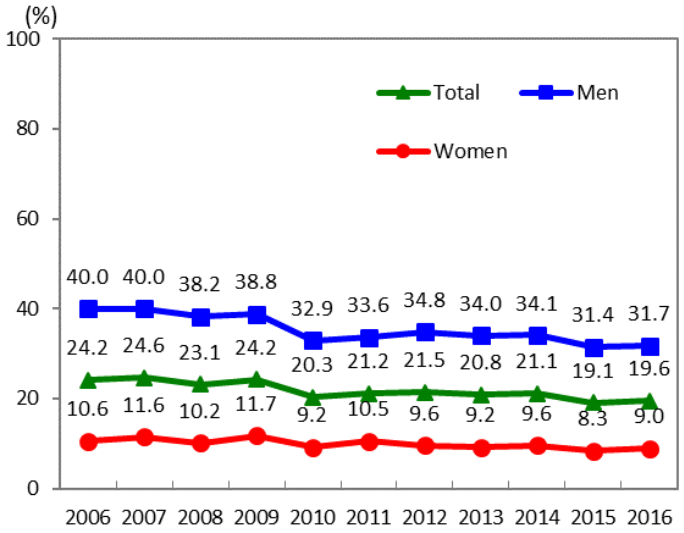

Figure 29-2. Annual changes in the age-adjusted proportion of regular smokers (aged 20 years and over) (2006- 2016)

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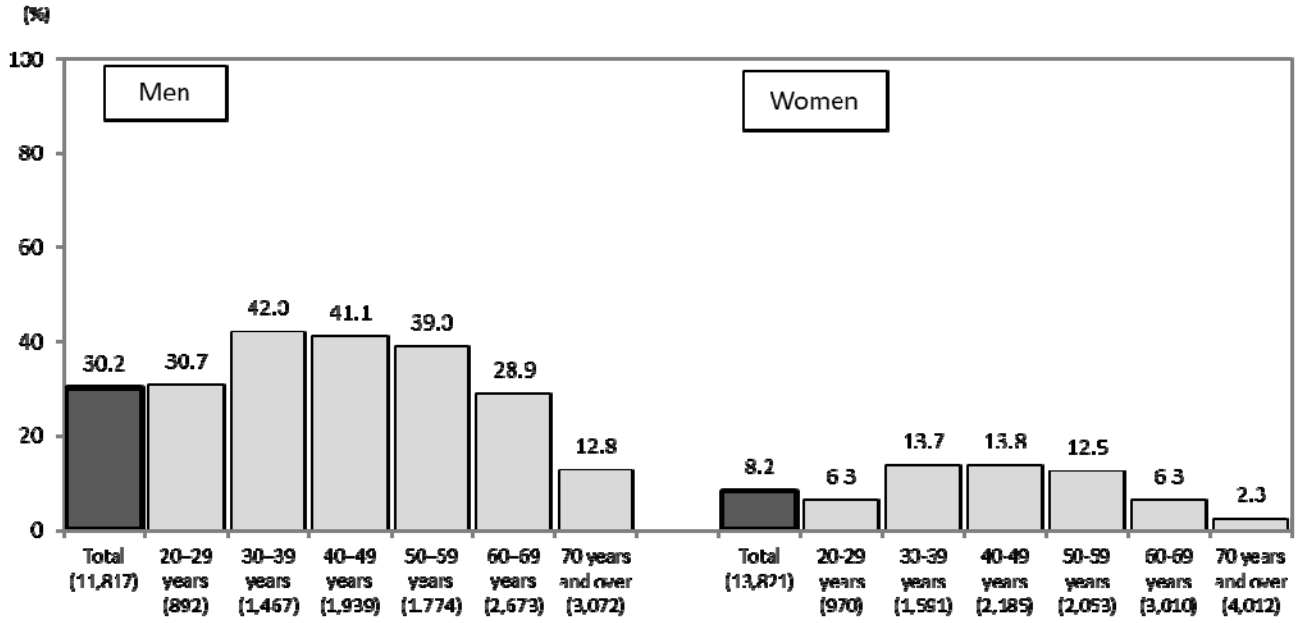

Figure 30. Proportion of regular smokers (aged 20 years and over, based on age and sex, adjusted national values)

3. Willingness to Quit Smoking

Among the regular smokers, the proportion of those willing to quit smoking was 27.7%; 25.4 % among men and 35.0% among women. An increasing trend was observed in men from 2007 to 2010, but a significant decrease was observed after 2011. A similar trend was observed in women, but there was neither significant increase nor decrease.

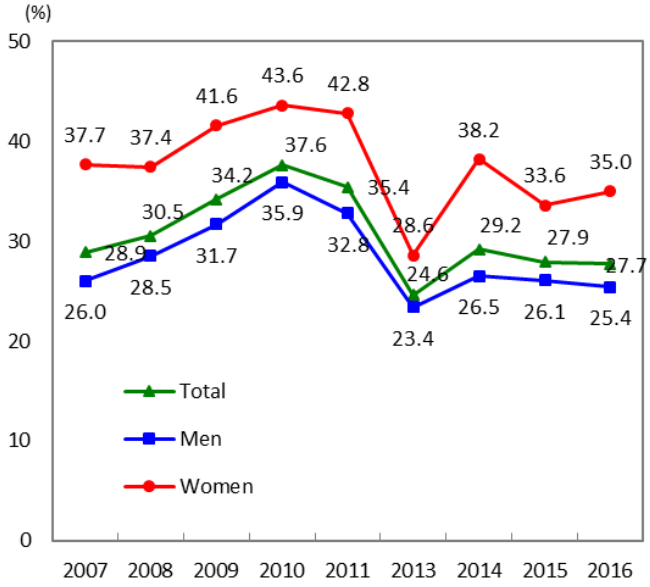

Figure 31-1. Annual changes in the proportion of those willing to quit smoking (aged 20 years and over) (2007- 2016)

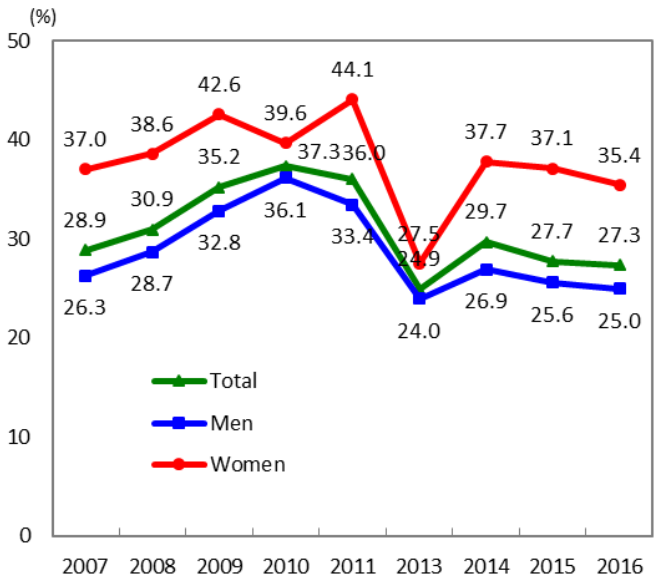

Figure 31-2. Annual changes in the age-adjusted proportion of those willing to quit smoking (aged 20 years and over) (2007-2016)

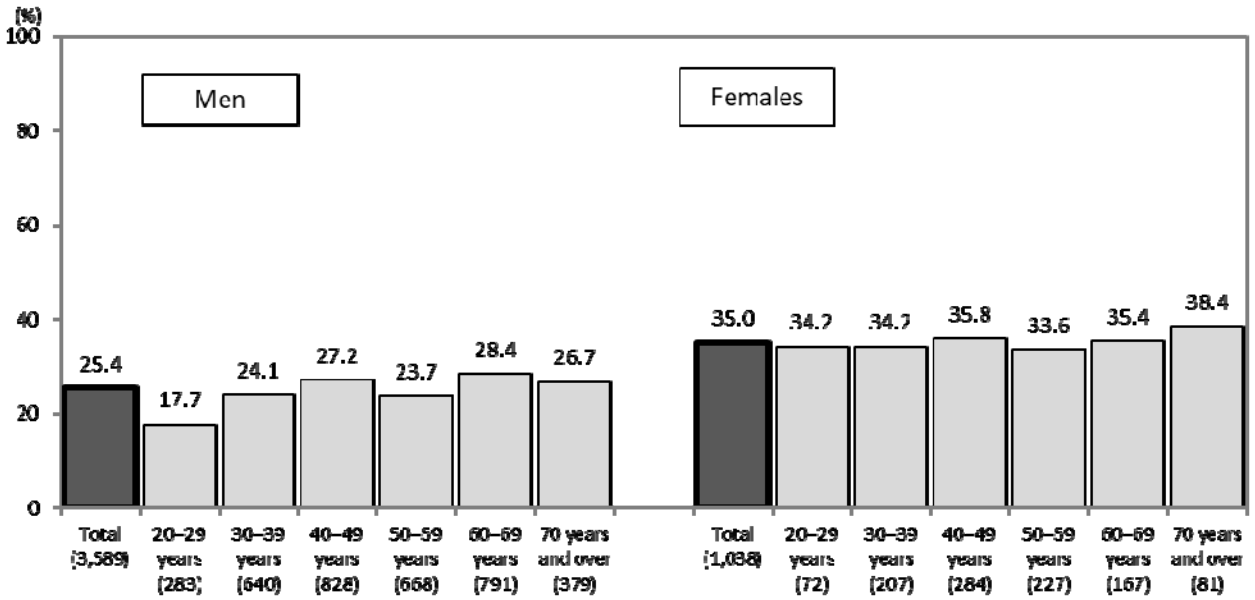

Figure 32. Proportion of individuals willing to quit smoking (aged 20 years and over, based on age and sex, adjusted national values)

4. Passive Smoking

The proportion of individuals potentially exposed to passive smoke, excluding current smokers, was highest at restaurants (42.2%), followed by amusement places (34.4%), workplace (30.9%), on the street (30.5%).

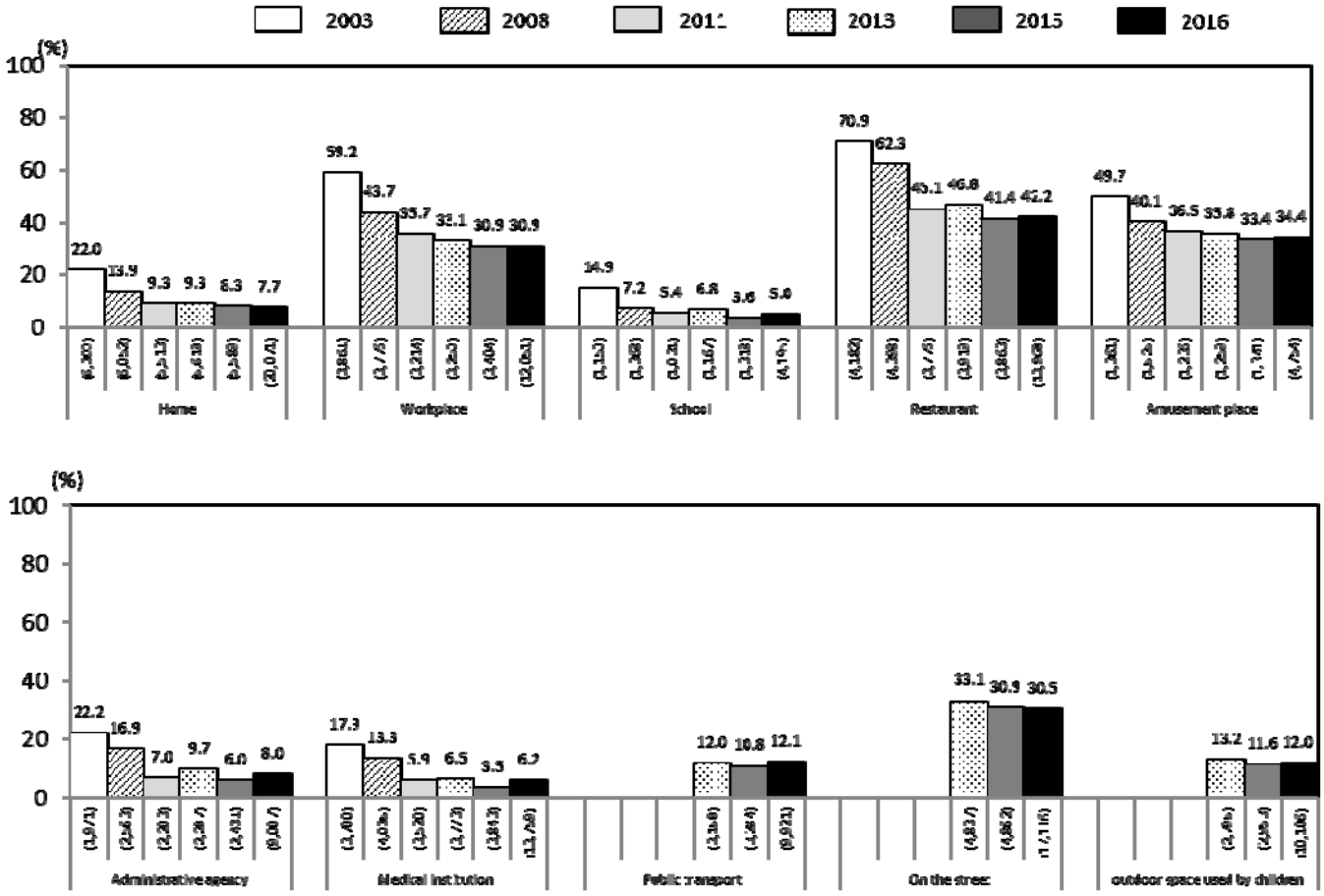

Figure 33. Annual changes in the proportion of individuals potentially exposed to passive smoke (aged 20 years and over, excluding current smokers) (2003, 2008, 2011, 2013, 2015, and 2016)

Question: Were you possibly exposed to passive smoke within the past month?
Regular smokers refer to individuals who reported regular smoking.
"Persons who were possibly exposed to passive smoke" are defined as individuals who are exposed to passive smoke at home every day or at other places more than once a month.
Respondents working in high-exposure locations such as a school, restaurant, or amusement place, listed their response in the workplace column.
* The location and situation (e.g., indoor or outdoor) in which passive smoking occurred was unclear.

Chapter 5. Dental Health (Oral Health)

1. Dental Checkup Status

The proportion of individuals who underwent a dental checkup during the previous year was 52.9%, and a significant increasing trend was observed from 2009 to 2016. Based on age and sex, the proportion of older men and women was high.

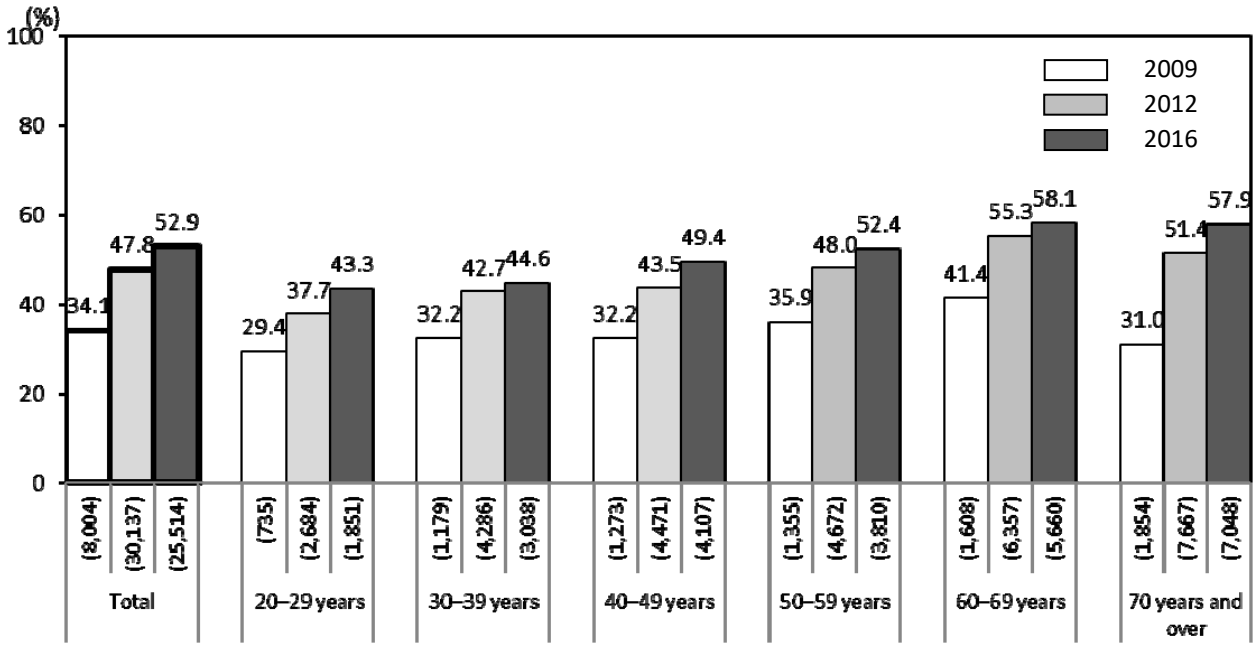

Figure 34. Annual changes in the proportion of persons who underwent a dental checkup during the previous year (aged 20 years and over, men and women, based on sex) (2009, 2012, and 2016)

*The age-adjusted proportions (total number) of individuals who underwent a dental checkup were 33.8%, 47.0%, and 51.5% in 2009, 2012 and 2016, respectively, and a significantly increasing trend was observed from 2009 to 2016.

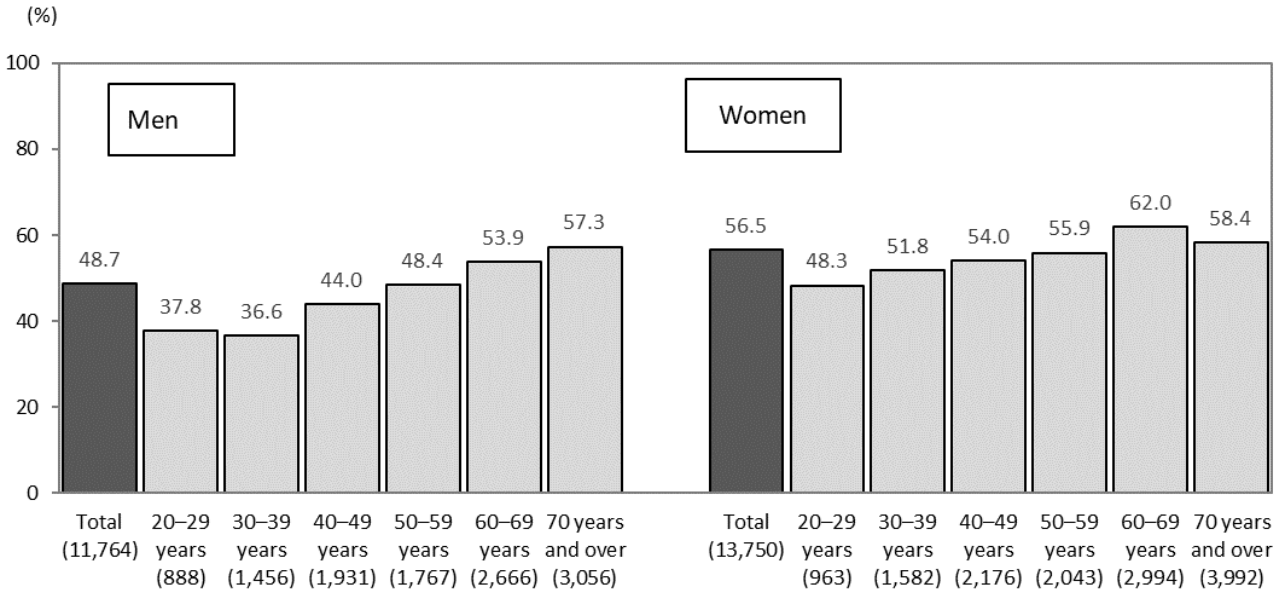

Figure 35. Proportion of individuals who underwent a dental checkup during the previous year. (aged 20 years and over, based on age and sex, adjusted national values)

Chapter 6. Participation in Volunteer Activities Related to Health Care/Social Participation

1. Participation in Volunteer Activities Related to Health Care

The proportion of individuals who participated in volunteer activities related to health care during the previous year was 27.8%, which was nearly equal to that recorded for 2012. Among these individuals, the highest proportion was of those aged 60-69 years.

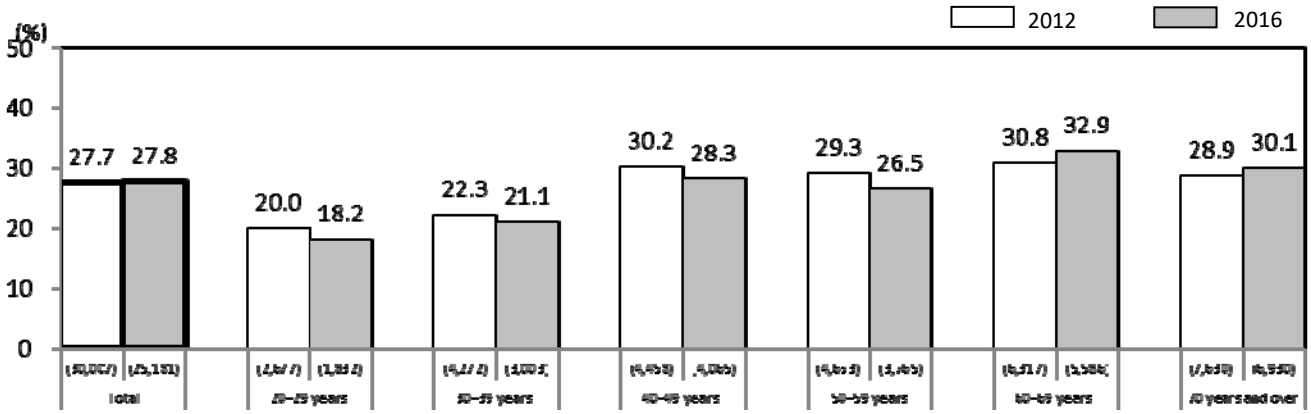

Figure 36. Annual comparison of the proportion of individuals who participated in volunteer activities related to health care during the previous year (aged 20 years and over, men and women, based on age, adjusted national values) (2012 and 2016)

"Persons who participated in volunteer activities related to health care" refers to those who reported participation in at least one of the following activities related to health care:
1) activities to improve lifestyle-related factors such as diet, 2) sports/culture/art-related activities, 3) activities for a community arrangement, 4) activities for children, 5) activities for the elderly, 6) crime/disaster prevention-related activities, 7) activities to protect nature and the environment, and 8) other activities.

2. Social Participation by Elderly Persons

The proportions of individuals 60 years or older, working or participating in regional activities were 62.4% and 55.0% among men and women, respectively. The percentage was approximately the same in 2012.

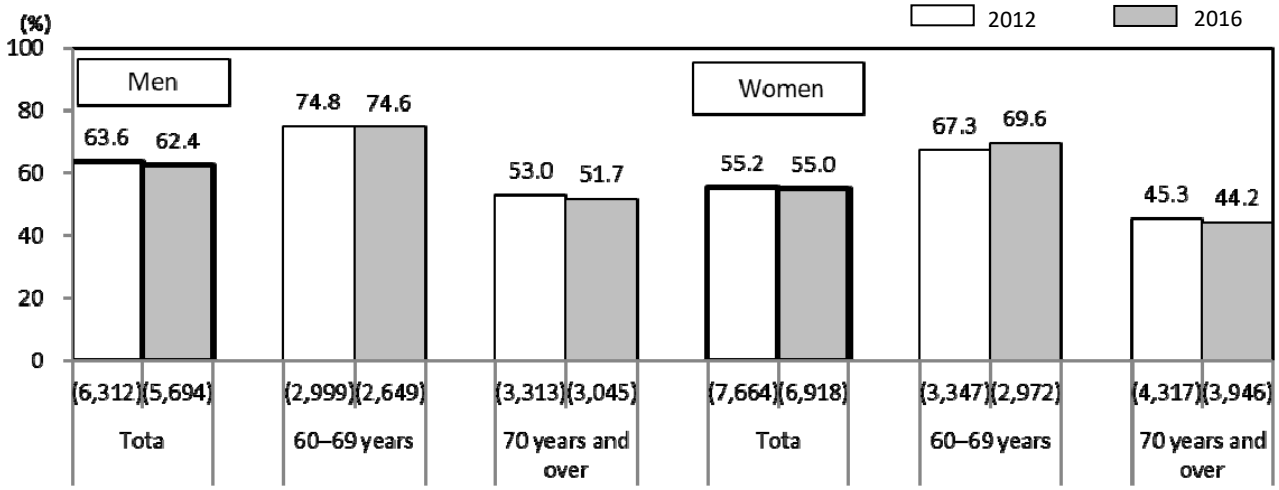

Figure 37. Comparison of the proportion of elderly persons participating in social activity (aged 60 years and over, based on age and sex, adjusted national values) (2012 and 2016)

< Appendix > Status of Intake by Nutrients/Food Groups

1. Intake of Nutrients

Table 5. Age-dependent nutrient intake (adjusted national value)

		Total	1–6	7–14	15–19	20–29	30–39	40–49	50–59	60–69	≥70	≥20 (reprints)
Participants (n)		26,133	1,244	1,988	1,050	1,489	2,557	3,400	3,263	4,948	6,194	21,851
Energy	kcal	1,865	1,258	1,976	2,097	1,856	1,881	1,878	1,918	1,943	1,808	1,878
Protein	g	68.5	44.1	70.9	75.1	67.0	67.5	67.1	70.2	73.1	68.6	69.3
Animal protein	g	37.4	24.9	41.5	44.5	38.0	36.8	36.9	37.9	39.0	36.1	37.4
Fat	g	57.2	39.9	63.9	69.0	60.9	60.2	59.4	59.3	57.8	51.0	56.9
Animal fat	g	29.1	21.3	35.5	37.9	30.9	30.3	29.7	29.3	28.7	25.8	28.5
Saturated fatty acid	g	15.74	12.49	20.36	19.62	16.74	16.41	16.12	15.99	15.18	13.59	15.28
Monounsaturated fatty acid	g	19.70	13.28	21.45	24.63	21.83	21.18	20.97	20.59	19.77	17.02	19.65
Omega-6 fatty acid	g	9.61	6.18	9.67	11.12	10.24	10.27	10.21	10.19	9.94	8.65	9.73
Omega-3 fatty acid	g	2.16	1.17	1.83	2.04	2.05	2.07	2.09	2.22	2.49	2.33	2.26
Cholesterol	mg	311	203	306	390	318	315	307	320	327	301	313
Carbohydrate	g	252.8	177.3	271.4	283.2	248.1	249.7	247.4	253.9	261.0	255.3	253.8
Dietary fiber	g	14.2	8.6	13.0	12.4	12.2	12.8	12.7	14.3	16.3	16.4	14.7
Water-soluble dietary fiber	g	3.3	2.1	3.2	2.9	3.0	3.1	3.0	3.3	3.7	3.7	3.4
Water-insoluble dietary fiber	g	10.3	6.2	9.5	9.0	8.7	9.2	9.3	10.4	11.9	12.0	10.7
Vitamin A RE	μgRE	524	394	562	496	473	475	491	545	548	569	529
Vitamin D	μg	7.5	3.7	6.6	6.5	6.0	6.1	6.5	7.2	9.0	9.4	7.8
Vitamin E	mg	6.4	4.2	6.0	6.4	6.1	6.2	6.2	6.7	7.1	6.7	6.6
Vitamin K	μg	225	128	180	200	194	213	212	230	264	253	236
Vitamin B1	mg	0.86	0.57	0.91	0.97	0.86	0.86	0.85	0.89	0.90	0.84	0.87
Vitamin B2	mg	1.15	0.80	1.26	1.13	1.07	1.06	1.06	1.16	1.24	1.21	1.16
Niacin NE	mgNE	14.4	7.6	12.2	14.0	13.8	14.1	14.6	15.7	16.3	14.7	15.0
Vitamin B6	mg	1.11	0.71	1.05	1.09	1.04	1.03	1.04	1.14	1.24	1.21	1.14
Vitamin B12	μg	6.0	3.2	5.2	4.9	5.1	5.3	5.2	6.0	7.2	7.1	6.3
Folate	μg	277	153	227	240	236	245	252	286	322	325	290
Pantothenic acid	mg	5.45	3.90	6.03	5.72	5.13	5.21	5.14	5.49	5.79	5.59	5.47
Vitamin C	mg	89	52	67	70	66	66	71	86	111	120	94
Sodium	mg	3,770	2,116	3,435	3,677	3,653	3,755	3,716	3,914	4,148	3,943	3,902
Salt equivalent	g	9.6	5.4	8.7	9.3	9.3	9.5	9.4	9.9	10.5	10.0	9.9
Potassium	mg	2,219	1,464	2,160	1,999	1,908	1,991	2,024	2,251	2,513	2,489	2,279
Calcium	mg	502	409	646	467	412	441	437	485	541	544	495
Magnesium	mg	238	147	221	215	207	220	224	247	271	260	246
Phosphorus	mg	976	674	1,066	1,015	900	925	926	989	1,054	1,004	982
Iron	mg	7.4	4.4	6.6	7.1	6.8	7.0	7.0	7.7	8.4	8.1	7.7
Zinc	mg	8.0	5.4	8.6	9.3	8.0	8.0	8.0	8.1	8.3	7.7	8.0
Copper	mg	1.11	0.69	1.07	1.13	1.04	1.07	1.06	1.14	1.21	1.17	1.14
Fat-energy ratio	%	27.4	27.9	29.0	29.6	29.5	28.6	28.3	27.7	26.6	25.1	27.1
Carbohydrate-energy ratio	%	57.8	58.2	56.5	55.9	55.9	56.8	57.3	57.5	58.2	59.7	58.0
Animal protein ratio	%	52.8	54.5	57.6	57.4	54.6	52.8	52.9	52.2	51.6	50.7	52.0
Cereal-energy ratio	%	40.9	39.3	40.9	44.5	43.0	43.0	42.3	40.8	39.3	39.7	40.8

Abbreviations: RE, retinol equivalents

Nutrient values are shown as mean value per person per day.

The intake from fortified foods and supplements could not be determined.

Table 6. Age-dependent nutrient intake in male participants (adjusted national values)

		Total	1–6	7–14	15–19	20–29	30–39	40–49	50–59	60–69	≥70	>20 (reprints)
Participants (n)		12,202	611	1,045	559	710	1,207	1,581	1,486	2,307	2,696	9,987
Energy		2,071	1,280	2,100	2,425	2,113	2,092	2,122	2,145	2,160	1,997	2,097
Protein	g	74.6	45.1	75.4	85.7	74.5	73.6	74.8	76.1	79.1	74.4	75.7
Animal protein	g	41.1	25.8	44.3	50.8	42.7	40.9	41.7	41.3	42.5	39.2	41.2
Fat	g	61.6	40.9	66.9	76.6	67.7	65.0	64.6	63.2	61.7	54.7	61.4
Animal fat	g	32.0	22.2	37.6	42.9	35.0	33.0	33.2	31.9	31.3	28.1	31.4
Saturated fatty acid	g	16.74	12.80	21.36	21.94	18.38	17.27	16.98	16.61	16.02	14.42	16.18
Monounsaturated fatty acid	g	21.49	13.72	22.63	27.81	24.65	23.20	23.17	22.30	21.38	18.34	21.49
Omega-6 fatty acid	g	10.43	6.24	10.10	12.37	11.47	11.28	11.23	11.05	10.77	9.30	10.62
Omega-3 fatty acid	g	2.34	1.23	1.92	2.24	2.27	2.28	2.35	2.39	2.67	2.53	2.46
Cholesterol	mg	335	206	320	431	347	340	332	350	353	321	339
Carbohydrate	g	279.2	179.4	289.9	334.6	285.6	278.0	278.8	282.1	286.4	277.7	281.1
Dietary fiber	g	14.5	8.6	13.4	13.5	12.5	12.9	13.1	14.4	16.5	16.9	15.0
Water-soluble dietary fiber	g	3.4	2.1	3.3	3.2	3.0	3.1	3.1	3.3	3.8	3.9	3.5
Water-insoluble dietary fiber	g	10.5	6.2	9.8	9.8	9.0	9.3	9.5	10.5	12.0	12.4	10.9
Vitamin A RE	µgRE	539	397	601	542	489	465	523	574	559	568	541
Vitamin D	µg	7.9	3.9	7.1	7.3	6.2	6.4	7.2	7.3	9.3	9.9	8.2
Vitamin E	mg	6.7	4.4	6.1	6.9	6.4	6.6	6.5	6.7	7.3	7.0	6.9
Vitamin K	µg	233	125	196	210	199	217	221	240	270	267	245
Vitamin B1	mg	0.93	0.58	0.95	1.12	0.97	0.94	0.93	0.96	0.95	0.90	0.94
Vitamin B2	mg	1.20	0.82	1.32	1.24	1.14	1.10	1.10	1.20	1.28	1.27	1.20
Niacin NE	mgNE	15.8	7.8	13.1	15.8	15.6	15.7	16.6	16.9	17.8	16.1	16.6
Vitamin B6	mg	1.20	0.73	1.10	1.23	1.13	1.11	1.15	1.21	1.32	1.31	1.23
Vitamin B12	µg	6.5	3.5	5.6	5.5	5.5	5.7	6.0	6.4	7.8	7.7	6.8
Folate	µg	283	156	236	252	244	251	262	291	328	334	297
Pantothenic acid	mg	5.82	3.96	6.42	6.47	5.57	5.54	5.58	5.85	6.09	5.95	5.83
Vitamin C	mg	87	53	66	71	67	65	70	82	105	119	92
Sodium	mg	4,077	2,097	3,600	4,077	3,995	4,110	4,139	4,269	4,494	4,243	4,251
Salt equivalent	g	10.4	5.3	9.1	10.4	10.2	10.4	10.5	10.8	11.4	10.8	10.8
Potassium	mg	2,297	1,489	2,257	2,219	1,998	2,067	2,130	2,291	2,556	2,603	2,356
Calcium	mg	511	421	678	508	430	442	435	478	539	562	498
Magnesium	mg	251	148	232	242	222	234	240	258	284	278	260
Phosphorus	mg	1,044	692	1,129	1,144	983	988	1,004	1,047	1,119	1,073	1,051
Iron	mg	7.8	4.4	6.9	7.8	7.2	7.3	7.5	8.0	8.7	8.6	8.1
Zinc	mg	8.8	5.5	9.2	10.8	9.1	8.7	9.0	8.9	9.1	8.4	8.8
Copper	mg	1.20	0.69	1.13	1.30	1.14	1.16	1.16	1.22	1.30	1.26	1.23
Fat-energy ratio	%	26.5	28.1	28.7	28.3	28.8	27.7	27.2	26.4	25.5	24.3	26.1
Carbohydrate-energy ratio	%	58.9	57.8	56.8	57.4	57.0	58.0	58.6	59.3	59.8	60.7	59.3
Animal protein ratio	%	53.4	55.3	58.0	57.3	55.2	54.0	53.8	52.6	51.8	51.0	52.6
Cereal-energy ratio	%	42.7	39.2	41.6	47.0	46.1	45.0	44.4	42.7	41.7	40.7	42.8

Abbreviations: RE, retinol equivalents

Nutrient values are shown as mean value per person per day.

The intake from fortified foods and supplements could not be determined.

Table 7. Age-dependent nutrient intake in female participants (adjusted national values)

		Total	1–6	7–14	15–19	20–29	30–39	40–49	50–59	60–69	≥70	≥20 (reprints)
Participants (n)		13,931	633	943	491	779	1,350	1,819	1,777	2,641	3,498	11,864
Energy	kcal	1,687	1,237	1,837	1,773	1,631	1,694	1,677	1,727	1,751	1,663	1,694
Protein	g	63.2	43.1	65.8	64.8	60.5	62.1	60.7	65.2	67.8	64.1	64.0
Animal protein	g	34.2	24.0	38.2	38.3	33.9	33.1	32.9	34.9	36.0	33.7	34.2
Fat	g	53.4	38.9	60.5	61.4	55.0	56.0	55.1	55.9	54.3	48.3	53.2
Animal fat	g	26.6	20.5	33.0	32.9	27.2	27.9	26.8	27.1	26.4	24.1	26.2
Saturated fatty acid	g	14.86	12.20	19.24	17.33	15.30	15.65	15.41	15.46	14.44	12.95	14.53
Monounsaturated fatty acid	g	18.15	12.87	20.12	21.51	19.35	19.38	19.16	19.14	18.35	16.00	18.12
Omega-6 fatty acid	g	8.90	6.13	9.18	9.89	9.16	9.37	9.37	9.45	9.21	8.15	8.98
Omega-3 fatty acid	g	2.01	1.12	1.73	1.84	1.86	1.89	1.87	2.08	2.33	2.18	2.09
Cholesterol	mg	290	200	290	351	292	294	285	295	303	286	292
Carbohydrate	g	229.9	175.2	250.6	232.5	215.2	224.6	221.4	230.2	238.5	238.0	231.0
Dietary fiber	g	13.9	8.6	12.6	11.3	11.9	12.6	12.4	14.2	16.1	15.9	14.4
Water-soluble dietary fiber	g	3.3	2.1	3.1	2.7	3.0	3.1	2.9	3.3	3.7	3.6	3.4
Water-insoluble dietary fiber	g	10.1	6.1	9.1	8.2	8.5	9.1	9.1	10.4	11.8	11.6	10.5
Vitamin A RE	µgRE	511	391	519	450	459	484	465	520	538	569	520
Vitamin D	µg	7.2	3.6	5.9	5.7	5.9	5.8	6.0	7.2	8.6	8.9	7.5
Vitamin E	mg	6.3	4.1	5.9	5.9	5.7	5.9	6.0	6.6	6.9	6.6	6.4
Vitamin K	µg	219	130	162	190	189	211	205	222	259	243	229
Vitamin B1	mg	0.80	0.56	0.87	0.83	0.77	0.78	0.78	0.84	0.85	0.79	0.81
Vitamin B2	mg	1.10	0.79	1.18	1.02	1.01	1.02	1.02	1.13	1.20	1.17	1.12
Niacin NE	mgNE	13.2	7.4	11.2	12.3	12.2	12.7	12.9	14.7	15.1	13.6	13.8
Vitamin B6	mg	1.04	0.69	0.98	0.95	0.95	0.95	0.95	1.07	1.18	1.14	1.07
Vitamin B12	µg	5.5	2.9	4.8	4.2	4.8	4.9	4.5	5.7	6.6	6.7	5.8
Folate	µg	272	151	218	228	229	240	244	283	317	318	285
Pantothenic acid	mg	5.13	3.84	5.59	4.97	4.73	4.92	4.78	5.18	5.53	5.32	5.16
Vitamin C	mg	91	52	68	69	65	66	71	90	115	121	97
Sodium	mg	3,504	2,134	3,249	3,283	3,352	3,441	3,366	3,614	3,842	3,713	3,610
Salt equivalent	g	8.9	5.4	8.3	8.3	8.5	8.7	8.6	9.2	9.8	9.4	9.2
Potassium	mg	2,152	1,441	2,050	1,782	1,829	1,925	1,937	2,217	2,476	2,402	2,216
Calcium	mg	493	398	610	426	396	439	439	491	543	531	492
Magnesium	mg	226	146	209	189	194	209	210	238	259	247	234
Phosphorus	mg	916	657	996	888	827	868	861	939	996	951	925
Iron	mg	7.1	4.3	6.1	6.5	6.5	6.7	6.5	7.4	8.1	7.8	7.3
Zinc	mg	7.3	5.3	7.9	7.8	7.1	7.3	7.1	7.4	7.6	7.2	7.3
Copper	mg	1.03	0.69	0.99	0.97	0.95	0.99	0.97	1.07	1.13	1.10	1.06
Fat-energy ratio	%	28.1	27.6	29.4	30.8	30.1	29.4	29.2	28.8	27.6	25.6	27.9
Carbohydrate-energy ratio	%	56.9	58.5	56.1	54.4	54.9	55.8	56.2	56.0	56.9	58.9	57.0
Animal protein ratio	%	52.3	53.7	57.2	57.4	54.1	51.8	52.2	51.9	51.4	50.4	51.6
Cereal-energy ratio	%	39.4	39.4	40.2	42.0	40.2	41.2	40.5	39.3	37.3	38.9	39.2

Abbreviations: RE, retinol equivalents

Nutrient values are shown as mean value per person per day.

The intake from fortified foods and supplements could not be determined.

2. Intake by Food Groups

Table 8. Age-dependent intake by food groups in participants (adjusted national values)

		Total	1–6	7–14	15–19	20–29	30–39	40–49	50–59	60–69	≥70	≥20 (reprints)
Total	Participants (n)	26,133	1,244	1,988	1,050	1,489	2,557	3,400	3,263	4,948	6,194	21,851
	Cereals	422.1	264.0	443.0	520.7	447.9	447.1	438.9	432.6	421.5	396.8	424.3
	Potatoes and starches	53.8	35.8	62.4	52.7	50.4	49.4	48.0	51.8	56.4	59.9	54.0
	Sugars and sweeteners	6.5	3.6	5.5	6.2	5.9	6.1	5.7	6.6	7.2	7.8	6.8
	Pulses	58.6	32.0	44.4	43.3	47.9	54.4	51.1	62.7	70.4	69.5	62.2
	Nuts and seeds	2.5	1.1	2.0	1.7	1.7	1.9	2.4	3.3	3.1	2.8	2.7
	Vegetables	265.9	149.0	242.1	233.5	232.1	245.4	246.0	271.8	304.8	300.6	276.5
	Green and yellow vegetables	84.5	51.5	70.4	76.4	66.4	73.0	76.0	81.4	97.5	104.0	88.1
	Fruits	98.9	98.7	77.8	72.4	57.6	49.3	59.6	84.4	126.2	153.5	102.2
	Mushrooms	16.0	7.2	12.4	13.2	14.0	13.9	13.8	17.9	20.0	18.1	17.0
	Seaweeds	10.9	6.4	8.2	8.1	8.4	10.0	9.0	11.0	13.1	13.7	11.6
	Fish and shellfish	65.6	29.5	46.1	47.0	50.4	53.2	55.7	67.2	84.6	83.0	70.5
	Meats	95.5	61.6	111.8	152.4	123.7	114.4	113.6	100.4	83.9	66.3	93.0
	Eggs	35.6	22.5	30.1	47.4	35.9	35.7	34.7	36.4	38.2	36.1	36.3
	Milks	131.8	194.5	306.2	137.7	94.1	96.9	94.1	108.6	117.8	128.5	111.2
	Fats and oils	10.9	6.7	10.9	13.4	12.6	12.5	12.4	11.7	11.0	8.9	11.0
	Confectioneries	26.3	30.5	37.3	29.4	25.7	26.0	23.4	24.8	24.6	25.3	24.9
	Beverages	605.1	211.2	314.2	419.4	525.5	623.1	690.4	733.9	737.2	611.6	664.9
	Seasonings and spices	93.5	54.0	77.6	77.4	91.4	91.9	95.4	101.3	105.4	96.8	98.1
Men	Subjects of analysis (n)	12,202	611	1,045	559	710	1,207	1,581	1,486	2,307	2,696	9,987
	Cereals	492.4	268.0	484.2	638.4	542.4	524.2	527.1	510.3	497.2	452.0	499.0
	Potatoes and starches	56.2	36.2	65.4	56.8	54.8	50.3	48.9	56.2	57.1	63.6	56.3
	Sugars and sweeteners	6.6	3.5	5.6	6.9	5.9	6.0	5.8	6.6	7.5	7.8	6.8
	Pulses	59.6	31.4	45.3	49.7	43.1	51.1	52.6	62.3	73.5	74.1	63.5
	Nuts and seeds	2.4	1.2	1.9	1.9	1.8	1.9	2.2	2.6	3.0	2.9	2.6
	Vegetables	272.3	148.4	248.6	250.7	236.2	254.7	257.8	277.0	309.9	308.8	283.7
	Green and yellow vegetables	83.4	53.0	73.0	78.1	64.6	72.9	77.5	77.4	94.7	104.0	86.7
	Fruits	89.2	101.2	73.9	74.9	54.9	41.0	51.1	67.8	108.8	147.7	90.9
	Mushrooms	16.0	7.5	12.9	14.7	13.9	13.4	13.8	18.2	20.0	18.1	17.0
	Seaweeds	11.2	5.5	8.3	8.1	8.4	10.8	10.0	11.6	13.4	14.2	12.1
	Fish and shellfish	71.8	31.7	48.5	51.5	51.9	60.9	64.7	72.5	93.3	91.9	78.0
	Meats	111.2	63.2	123.1	180.7	147.5	131.7	136.9	117.3	97.1	75.3	109.1
	Eggs	37.8	22.2	30.6	50.5	38.9	38.9	36.1	40.3	41.3	37.8	38.9
	Milks	127.9	199.0	323.0	154.8	95.0	88.9	76.9	92.5	101.4	124.9	100.2
	Fats and oils	12.0	6.9	11.2	15.2	14.9	14.0	13.7	12.6	12.1	9.5	12.2
	Confectioneries	23.9	33.1	37.4	28.0	20.3	21.6	19.3	22.3	20.4	24.2	21.6
	Beverages	665.3	225.7	342.0	439.5	599.3	681.8	761.5	809.6	823.7	686.5	740.6
	Seasonings and spices	102.8	52.9	82.8	88.3	99.9	103.1	113.9	111.6	117.7	102.1	108.9
Women	Subjects of analysis (n)	13,931	633	943	491	779	1,350	1,819	1,777	2,641	3,498	11,864
	Cereals	361.3	260.3	396.5	404.7	364.9	378.6	366.1	367.0	354.5	354.4	361.8
	Potatoes and starches	51.7	35.5	59.2	48.6	46.6	48.6	47.2	48.1	55.8	57.0	52.1
	Sugars and sweeteners	6.5	3.6	5.4	5.6	5.8	6.1	5.6	6.6	7.1	7.7	6.7
	Pulses	57.7	32.5	43.4	37.0	52.0	57.3	49.9	63.0	67.7	65.9	61.2
	Nuts and seeds	2.6	1.1	2.2	1.4	1.6	2.0	2.5	3.9	3.1	2.8	2.8
	Vegetables	260.4	149.5	234.7	216.6	228.6	237.2	236.3	267.4	300.3	294.3	270.5
	Green and yellow vegetables	85.4	50.2	67.5	74.8	68.0	73.1	74.7	84.9	99.9	104.0	89.2
	Fruits	107.3	96.4	82.1	69.9	59.9	56.7	66.7	98.5	141.7	158.0	111.7
	Mushrooms	15.9	6.9	11.9	11.6	14.0	14.2	13.8	17.7	20.0	18.0	17.0
	Seaweeds	10.6	7.3	8.1	8.1	8.3	9.3	8.2	10.4	12.8	13.4	11.1
	Fish and shellfish	60.3	27.4	43.4	42.6	49.0	46.3	48.3	62.8	76.9	76.2	64.3
	Meats	81.9	60.1	99.1	124.6	102.8	99.1	94.3	86.2	72.3	59.3	79.6
	Eggs	33.7	22.8	29.5	44.3	33.2	32.9	33.5	33.1	35.4	34.8	34.1
	Milks	135.3	190.2	287.4	120.7	93.3	104.0	108.4	122.1	132.2	131.2	120.3
	Fats and oils	10.0	6.4	10.6	11.6	10.6	11.1	11.2	10.9	10.1	8.4	10.1
	Confectioneries	28.4	28.1	37.2	30.8	30.5	30.0	26.8	26.9	28.4	26.1	27.6
	Beverages	552.9	197.6	282.8	399.5	460.7	571.0	631.7	669.9	660.6	554.1	601.7
	Seasonings and spices	85.4	54.9	71.7	66.7	83.8	82.0	80.1	92.7	94.5	92.7	89.1

Food values are shown in grams and are mean values per person per day. Food for specified health use is included in the regular food group.