# Outline for the Results of the National Health and Nutrition Survey Japan, 2004

This report was prepared by National Institute of Health and Nutrition as a summary English report of the National Health and Nutrition Survey conducted by Ministry of Health, Labour and Welfare in 2004.

# **Outline of the Survey**

# 1. Purpose of the Survey

This survey, based on the Health Promotion Law (Law No. 103, enacted in 2002), aims to ascertain the actual state of health, food intake, nutritional intake, and lifestyles of the Japanese people and to obtain basic data for implementing effective measures for health improvement, etc.

# 2. Survey Subjects

The survey was conducted on members of households aged one year and over (as of November 1, 2004) within the selected district, based on "Comprehensive Survey of Living Conditions of the people on Health and Welfare (2004)".

Subjects of the survey are approximately 15,000 members of about 5,000 households within 300 districts. Subjects were selected by stratified random sampling out of the selected districts, based on "Comprehensive Survey of Living Conditions of the people on Health and Welfare (2004).

However, the survey could not be conducted in 2 of the 300 districts because of the Niigata Prefecture Chuetsu Earthquake (Mid Niigata Prefecture Earthquake) that occurred in October 2004.

# 3. Grouping of Subjects

# **Grouping by Regional Block**

The whole nation is classified into 12 regional blocks as shown in the following table.

Regional Block	Name of Prefecture
Hokkaido	Hokkaido
Tohoku	Aomori, Iwate, Miyagi, Akita, Yamagata, Fukushima
Kanto	Saitama, Chiba, Tokyo, Kanagawa
Kanto	Ibaragi, Tochigi, Gunma, Yamanashi, Nagano
Hokuriku	Niigata, Toyama, Ishikawa, Fukui
Tokai	Gifu, Aichi, Mie, Shizuoka
Kinki	Kyoto, Osaka, Hyogo
Kinki	Nara, Wakayama, Shiga
Tyugoku	Tottori, Shimane, Okayama, Hiroshima, Yamaguchi
Shikoku	Tokushima, Kagawa, Ehime, Kochi
Kita (Northern) Kyushu	Fukuoka, Saga, Nagasaki, Ooita
Minami (Southern) Kyushu	Kumamoto, Miyazaki, Kagoshima, Okinawa.

# 4. Outline of the Survey Subjects

# A. Number of Households Surveyed

Blood Test

Dietary Intake

Survey Lifestyle

Questionnaire

2,383

4,627

4,917

-

257

269

-

351

375

A total of 3,421 households in the randomly selected 300 survey district units participated in the survey.

<b>D.</b> Numb	er of the	Subjects	oy Age Gr	oup					(Unit	: persons)
	Total	1-6	7 – 14	15 – 19	20-29	30 - 39	40 - 49	50 - 59	60 - 69	70 and over
Physical Examination	7,689	467	664	370	663	950	894	1,217	1,267	1,197
Blood Test	3,932	-	-	-	308	527	519	773	940	865
Dietary Intake Survey	8,762	520	770	435	803	1,124	1,045	1,374	1,368	1,323
Lifestyle Questionnaire	9,345	555	807	476	876	1,203	1,120	1,484	1,427	1397
Male	Total	1 – 6	7 – 14	15 – 19	20 – 29	30 - 39	40 – 49	50 - 59	60 - 69	70 and over
Physical Examination	3,556	242	365	200	298	420	390	544	572	525
Blood Test	1,549	-	-	-	118	176	170	284	406	395
Dietary Intake Survey	4,135	263	419	239	353	525	480	649	631	576
Lifestyle Questionnaire	4,428	286	432	256	395	560	520	707	664	608
Female	Total	1 – 6	7 – 14	15 – 19	20 - 29	30 - 39	40 - 49	50 - 59	60 - 69	70 and over
Physical Examination	4.133	225	299	170	365	530	504	673	695	672

## **B.** Number of the Subjects by Age Group

## **C.** Number of the Subjects by Regional Block (Subjects for a dietary intake survey)

-

196

220

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Total Number	Hokkaido	Tohoku	Kanto I	Kanto II	Hokuriku	Tokai	Kinki I	Kinki II	Chugoku	Shikoku	Kita- Kyushu	Minami- Kyushu	
8,762	343	663	2,273	721	291	1,188	1,262	310	671	285	480	275	l

190

450

481

351

599

643

349

565

600

489

725

777

534

737

763

470

747

789

## **D.** Number of the Subjects by Occupation (Subjects for a dietary intake survey)

	vulliber of the	c Bubjeets by	Occupation	(Bubjeets Io	a ulctary in	take survey)		nit: persons)
	Total Number	Professional / Technician	Management	Clerk	Sales	Services	Security Services	Agriculture
National Total	8,762	757	338	738	486	533	52	282
Male	4,135	400	300	259	250	164	50	161
Female	4,627	357	38	479	236	369	2	121

	Forestry	Fisheries	Transportation / Communications	Manufacture	Housekeeper or Domestic Helper	Other (Unemployed)	Day-care Center Infant	Kindergarten Child
National Total	8	8	164	864	1,529	1,164	148	151
Male	8	5	158	651	32	714	81	70
Female	0	3	6	213	1,497	450	67	81

	Other Child	Elementary School Student, 1st – 2nd Grade	Elementary School Student, 3rd – 4th Grade	Elementary School Student, 5th – 6th Grade	Junior High School Student	Other Student	Unknown
National Total	186	167	214	211	251	502	9
Male	92	86	125	110	136	278	5
Female	94	81	89	101	115	224	4

# 5. Items Checked and the Dates of the Survey

# A. Items Checked

The Survey 2004 consisted of a physical examination, a dietary intake survey and a lifestyle questionnaire, in which the following items were included:

## A. Physical Examination

- (a) Height (subjects aged one year and over)
- (b) Body weight (subjects aged one year and over)
- (c) Abdominal circumference (subjects aged 15 years and over)
- (d) Blood pressure: Systolic (maximum) blood pressure and diastolic (minimum) blood pressure (subjects aged 15 years and over) [Duplicated Measurements]
- (e) Blood Test (subjects aged 20 years and over)
- (f) Daily Physical Activity <Number of Steps Taken in a Day> (subjects aged 15 years and over)
- (g) Examination by Interview on the use of medication and exercise habit:
  - Whether the subject is taking drug for lowering blood pressure (subjects aged 20 years and over)
  - Whether the subject is taking antiarrhythmic drug (subjects aged 20 years and over)

Whether the subject is taking insulin injection or drug for lowering blood glucose (subjects aged 20 years and over)

Whether the subject is taking drug for lowering cholesterol levels (subjects aged 20 years and over)

Whether the subject has regular exercise habit, and, if yes, the number of days on which the subject exercises each week, the average duration of exercise each day, and the exercise intensity (subjects aged 20 years and over)

## B. Dietary Intake Survey (subjects aged 1 years and over)

- (a) Characteristics of a household member (name, sex, year and month of birth, pregnancy (if yes, how many weeks), lactation, occupation, and physical activity level)
- (b) Food intake on the day of the survey (meals eaten outside the home, cooked meals, meals provided at school/workplace etc, meals cooked at home, others).
- (c) Food records (names of dishes, names and amounts of foodstuffs used, amounts thrown away, and proportion for dish or food taken by individual fanily member

# C. Lifestyle Questionnaire (subjects aged 1 year and over)

A questionnaire survey was conducted to grasp overall lifestyle behavior in general, such as eating habits, physical activity, exercise, resting (sleep), alcohol intake, smoking, and dental health, with the focuses on "dental health" and the "Mid-term Evaluation Items of Health Japan 21" in the 2004 survey. The survey on subjects aged 1-14 years consisted of items related to "dental health" only.

# **B.** Date of the Survey

- a. Physical Examination: one day in November 2004
- b. Dietary Intake Survey: one day in November 2004 (excluding Sundays and public holidays).
- c. Lifestyle Questionnaire: one day in November 2004, on the same day as the Dietary Intake Survey was conducted.

# 6. Survey Procedure Details and Requirements

# A. Composition of the Survey Staff

The Survey Team was composed of physicians, registered dietitians, public health nurses, clinical laboratory technicians and clerks. The registered dietitians and dietitians were in charge of the dietary intake survey, and the physicians, the public health nurses and the clinical laboratory technicians were responsible for the physical examination.

# **B.** Survey Method

The Organization and flow of data collection procedures are shown on page 7.

### C. Forms used for the Survey and Questionnaires

- (a) Physical Examination Sheet and Questionnaire: (See Page 22)
- (b) Dietary Intake Survey:
- (c) Lifestyle Questionnaire:

(See Page 23) (See Page 27)

## **D.** Survey Methods

## A. Physical Examination

The physical checkup was conducted on all the subjects of the households within the selected districts. They were required to gather in a place convenient for them.

The methods and procedures are as follows:

- (A) Height: Height was measured in the following way. The subject took off their socks, placed their heels closely together, stood upright so that his/her back, buttocks, and both heels were in touch with the pillar of the height measuring device, let both upper arms hang down alongside the body, and the head was held in its normal position. When measuring the height of an infant younger than three years old, the infantometer (length measuring scale) was used. This entailed having the subject lie down in the face-up position, with his /her head held firmly by an assistant, and then extending the legs as much as possible, with the shortest distance between the head and the soles of the feet then being measured.
- (B) Body weight: Subjects were requested to wear minimum cloths only and then stand still on the center of platform of the scales. It is preferable to weigh the subject completely naked, but this is not practically difficult. When a subject was weighed with clothes, the staff asked them to weigh the clothes at home in advance, and the weight of the clothes was subtracted from the measured value shown by the scales.
- (C) Abdominal Circumference: Subjects were requested to stand upright, put their feet together, and let both arms hang down alongside the body to keep their abdominal wall relaxed. Then, abdominal circumference was measured at the level of the navel. Measurement immediately after eating was avoided as much as possible. The measuring staff stood in front of the subject and put a measuring tape (a Japanese Industrial Standards (JIS) plastic tape, with minimal measurement error by stretching) directly around the abdomen. After confirming that the measuring tape was properly placed around the abdomen horizontally, the measuring staff read the tape to the nearest 0.5 cm at the end of the exhalation of a normal breath. It is preferable for subjects not to wear underwear for an accurate measurement, but this is practically difficult. Subjects were, therefore, allowed to wear underwear if they preferred.
- (D) Blood Pressure: The Riva-Rocci mercurial sphygmomanometer, as the measuring instrument, and the JIS manchette (blood pressure cuff) were used. Blood pressure was measured by the following procedures: Conditions for the Blood Pressure Measurement
- (a) Instructions were given to the subjects that activities that might affect blood pressure, such as physical exercise, eating, smoking, exposure to cold, etc., should be avoided before measurement.
- (b) After having the subject urinate in advance and take a rest quietly and calmly for 5 minutes or longer before the measurement, the blood pressure was measured.
- (c) Blood pressure was measured while the subject was seated (on a chair preferably with a backrest).
- (d) The blood pressure was measured with the right upper arm. When it was impossible to conduct measurements at this site, the blood pressure was measured with the left arm.
- (e) Any clothes constricting the upper arm were taken off before the manchette was placed around the arm.

Procedures for the First Measurement

- (a) The staff placed the mercurial sphygmomanometer in the vertical position.
- (b) The staff squeezed all the air out from the manchette, placed the rubber bladder of the manchette carefully around the right upper arm of the subject to cover the brachial artery in such a way that the manchette would not touch the bladder when the diaphragm of the stethoscope is placed on the

inner part of the elbow. The manchette was placed around the arm loosely enough to allow one or two fingers to be placed under it, so that the lower edge of the manchette would come to about 2 to 3cm above the bend in the elbow.

- (c) The subject was instructed to straighten the arm so that the center of the manchette would be on the same level as the heart of the subject.
- (d) The staff estimated the systolic blood pressure by the palpation method, then dropped the pressure in the manchette to zero (0) for a short while by deflating it, then got the pressure up again to a level more than 30mm Hg higher than the blood pressure estimated by the palpation method (= targeted pressure), and finally measured the systolic blood pressure and the diastolic blood pressure with the aid of a stethoscope.
- (e) If Korotkov's sound was already heard at the targeted pressure, the pressure was immediately reduced, and the following procedures were followed.
- (f) The speed at which the mercury was going down was set at one graduation (2mmHg) per second.
- (g) The point at which the Korotkov's sound was first heard was regarded as the systolic blood pressure, and the point at which the Korotkov's sound disappeared, was the diastolic blood pressure value. If the diastolic blood pressure value was determined to be the midpoint between markings, the value of the first marking after the sound was last heard was regarded as the diastolic blood pressure.
- (h) The staff's eyes were kept level with the value displayed on the manometer.
- (i) The minimum reading unit of the graduation was required to be an even number, and when it was in-between two numbers, the nearest value was adopted.
   Procedures for the Second Measurement
- (a) After the first measurement, the manchette around the subject's arm was removed for a short while, and the air in the manchette was completely removed.
- (b) After one or two minutes, the staff placed the manchette around the subject's arm again, and then measured the blood pressure for the second time, following the steps b) to i) given in the above .
- (c) The following two points were especially noted for the second measurement:
  - i) Do not use the palpation method.

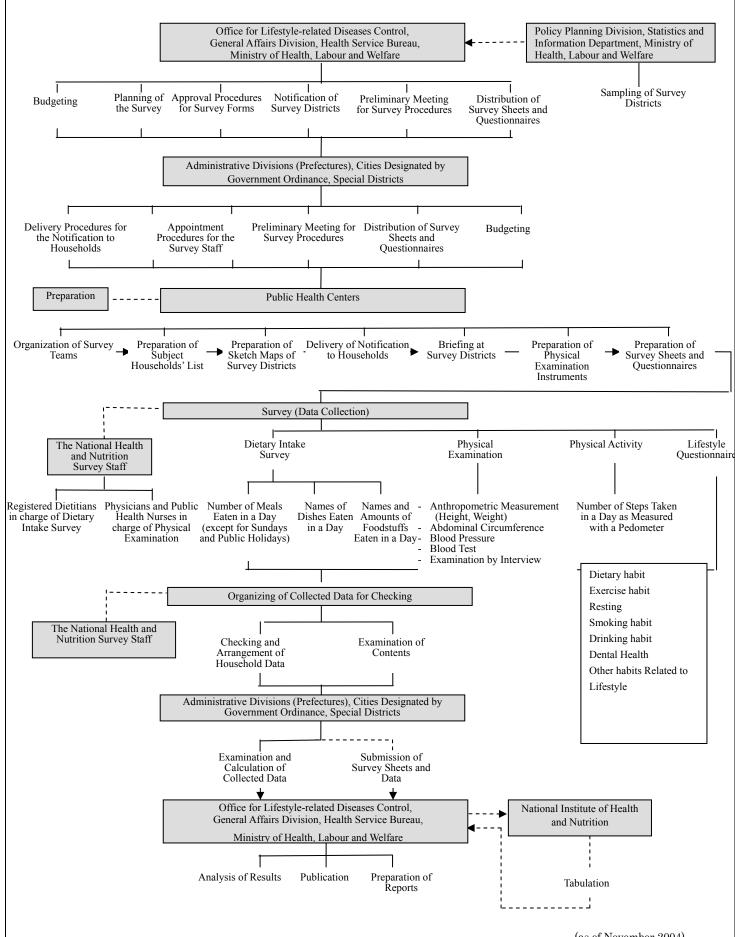
ii) Do not allow the subject to breathe deeply between the first measurement and the second one.

- (E) Blood Test: Blood was drawn from an elbow vein using a tourniquet after more than three hours of the last meal. For blood test items and methods, refer to page 8.
- (F) Physical Activity in a Day: The number of steps taken in a day was measured by a pedometer (Arnes200S, AS200). Each subject set the device firmly on his/her belt or another suitable place with the clip as soon as s/he got up in the morning, and continued measuring steps taken until s/he went to bed.
- (G) Interview:

Medication: Whether the subject was taking it on a doctor's advice or not, any subject who was actually taking drug for lowering blood pressure, antiarrhythmic drug, insulin injection, drug for lowering blood glucose or cholesterol level at the time of the survey was considered as taking medication.

Regular exercise habit: A subject was considered as a regular exerciser if all the following three conditions were met:

- a) Frequency of exercise: at least twice a week
- b) Time of exercise each time: 30 minutes or longer
- c) Duration which exercise has been practiced: one year or longer



7

(as of November 2004)

#### **Blood Test Methods**

Item to be Checked	Method of Measurement	Measuring	Reagent	Standard Reference
		Instrument	Ű	Material
Total protein	Biuret method	H7170	Total protein-HR	Protein standard serum
Total cholesterol	Enzyme method	H7170	L-type Wako CHO - H	Ortho-abnormal
Triglyceride	Enzyme method	H7170	L-type Wako TG • H	Triglyceride normal
				solution
HDL-cholesterol	Direct method	H7170	Choles-test-NHDL	Choles-test Calibrator
Blood glucose	Enzyme method	H7170	Shikarikid GLU	Glucose normal solution
Red blood corpuscles	Electro-resistance detection method	SE - 9000	Cellpack	—
(RBC)	(Automatic method)			
	Sheath flow DC detection method	XE - 2100	SE Sheath ( )	
White blood corpuscles	Flow cytometry method	SE - 9000	Stromatolyser FB ( )	—
(WBC)	(Automatic method)		Stromatolyser 4DS	
		XE - 2100	Stromatolyser 4DL	
			Cellpack	
Platelet (PLT)	Sheath flow DC detection method	SE - 9000	Cellpack	—
	(Automatic method)	XE - 2100	SE Sheath ( )	
			Stromatolyser NR	
			RET Search ( )	
Hemoglobin (Hb)	SLS-Hb method	SE - 9000	Cellpack II	—
	(Automatic method)	XE - 2100	Sulfolizer	
Hematocrit	Red blood corpuscle pulse peak	SE - 9000	Cellpack	—
	detection method	XE - 2100	SE Sheath ( )	
	(Automatic method)			
Hemoglobin A1c	Latex agglutination nephelometry	BM - 9030	Rapidia Auto HbA <sub>1C</sub>	Rapidia Auto HbA1C
	method			
Ferritin	EIA method	Full automatic	LS Reagent Eiken Ferritin	LS Standard Ferritin Eiken
		chemiluminescent		
		enzyme		
		immunoassay system		
		BCS600		
Albumin	BCG method	H7170	Albumin-HR	Protein standard serum

#### **B.** Dietary Intake Survey

The survey was undertaken on the days when people would take normal diets, with excluding the public holidays or ceremonial days when special meals could be taken. Before implementation of the survey, the objectives and other major points of the survey were explained to the subjects to obtain their positive cooperation. After the questionnaire for Dietary Intake Survey was distributed to each household, the subjected were explained how to fill out the questionnaire and how to weigh the food they used with scales during the survey. If the amount of food used was too small to weigh, an estimated quantity was recorded.

In addition, the survey staff (registered dietitian etc.) visited each target household in person to ensure that subjects had filled out the questionnaire properly and to make necessary correction/instruction.

### C. Lifestyle Questionnaire

This survey was conducted at the same time as the Dietary Intake Survey. The questionnaire was distributed to each target household and left there for a period so that the household members could fill it out. At each household, data were collected on all household members aged 1 year old and over. For household members aged 1 to 14 years, their parents (or other guardians) filled out the questionnaire for them.

### **E.** Confidentiality

Since some questions in this survey might be perceived intrusive, all possible measures and special care were taken to ensure protection and management of personal information, so that the subjects would not feel anxious on this matter.

# 7. Organizations Involved in the Survey

- 1. The Ministry of Health, Labour and Welfare established the Committee for the Planning and Analysis of the National Health and Nutrition Survey in Japan, 2004, which provided opinions on the design and analysis of this survey from technical standpoints.
- 2. The survey was planned by the Ministry of Health, Labour and Welfare and conducted by the public health centers in charge of the survey districts, under the control of the health departments/offices of the prefectures, government ordinance-designated cities, and special wards.
- 3. Each public health center organized the National Health and Nutrition Survey Team, for which the Director of the public health center served as the team leader. The survey was implemented by the survey staff composed of physicians, registered dietitians, public health nurses, clinical laboratory technicians, clerks, etc.
- 4. National Institute of Health and Nutrition entered, calculated and tabulated the data on survey sheets which had been submitted to the Ministry of Health, Labour and Welfare.

# 8. Notes

## 1. Calculation of Nutrient Intakes

As a rule, the "Standard Tables of Food Composition in Japan, Fifth Revised Edition" (hereinafter, the "Composition Tables, Fifth Revised Edition") completed by the Resources Council of the Science and Technology Agency (currently, the Office for Resources of the Ministry of Education, Culture, Sports, Science and Technology) was used to calculate nutrient intakes.

The values after cooking (boiling, frying, etc.) were used, if they were available in the "Composition Tables, Fifth Revised Edition". For other food items, nutrient intakes were calculated using the "rate of change in weight" by cooking provided in the "Composition Tables, Fifth Revised Edition".

## 2. Classification of Food Groups

The classification of food groups for tabulation is shown in Table 1 on Pages 10-15. Please note: "Butter (small classification 76)" and "animal oils and fats (small classification 79)" are handled as "animal food" in this report. There have been several changes from the National Nutrition Survey, 2001, as below:

## Classification

Classification of "jams" was changed from "sugars" to "fruits", that of "miso" was changed from "pulses" to "seasonings and spices", and that of "mayonnaise" was changed from "fats and oilsts" to "seasonings and spices".

## Weight

The weights of food items were the ones after cooking. For example, the rice of "rice/rice products" was calculated as "cooked paddy rice", "paddy rice gruels", "dried buckwheat noodles (dry form, raw)" of "other cereals/other cereal products" was calculated as "dried buckwheat noodles (dry form, boiled)", "wakame (dried products)" of "algae" was calculated as "wakame (dried, soaked in water)" and "tea leaves" of "beverages" was calculated as "tea infusions".

# Table 1 Food Groups Used for the National Health and Nutrition Survey

Large Classifica tion	Large Classification Number	Medium Classificatio n	Medium Classification Number	Small Classificatio n	Small Classification Number	Name of Foodstuffs	
		Rice/ Rice products	1	Rice	1	<paddy grain="" rice=""> Brown rice, Half-milled rice, Under-milled rice, Well-milled rice, Well-milled rice with embryo <cooked paddy="" rice=""> Brown rice, Half-milled rice, Under-milled rice, Well-milled rice, Well-milled rice with embryo <paddy gruels="" rice=""> Brown rice, Half-milled rice, Under-milled rice, Well-milled rice (rice:water = 1:5 in volume) <paddy diluted="" gruels="" rice=""> Brown rice, Half-milled rice, Under-milled rice, Well-milled rice <paddy gruels="" rice="" thin=""> Brown rice, Half-milled rice, Under-milled rice, Well-milled rice <paddy gruels="" rice="" thin=""> Brown rice, Half-milled rice, Under-milled rice, Well-milled rice <paddy gruels="" rice="" thin=""> Brown rice, Half-milled rice, Under-milled rice, Well-milled rice <paddy gruels="" rice="" thin=""> Brown rice, Half-milled rice, Under-milled rice, Well-milled rice <paddy gruels="" rice="" thin=""> Brown rice, Half-milled rice, Under-milled rice, Well-milled rice <paddy gruels="" rice="" thin=""> Brown rice, Half-milled rice, Under-milled rice, Well-milled rice <paddy gruels="" rice="" thin=""> Brown rice, Half-milled rice, Under-milled rice, Well-milled rice <paddy gruels="" rice="" thin=""> Brown rice, Half-milled rice, Under-milled rice, Well-milled rice  <p< td=""></p<></paddy></paddy></paddy></paddy></paddy></paddy></paddy></paddy></paddy></paddy></cooked></paddy>	
				Rice products	2	Quick-cooking rice, Onigiri (rice ball), Yaki-Onigiri (grilled rice ball), Kiritampo rice cake, Powdered ordinary non-glutinous rice, Rice vermicelli, Rice malt, Rice cake, Sekihan (Glutinous rice steamed together with red beans), Akumaki, Shiratamako (powdered glutinous rice), Domyojiko (Domyo-ji style rice flour)	
				Flour	3	Soft flour, Soft flour for school lunch, Medium flour, Hard flour, Hard flour for school lunch, Whole wheat flour, Premixed flour for pancake, Premixed flour for Tempura	
				Bread (except Japanese buns)	4	White table bread, White table bread for school lunch, Bread type rolls, read type rolls for school lunch, Hardtack, French bread, Rye bread, Raisin bread, Soft roll, Croissant, English muffins, Nan	
			2	Japanese buns	5	Bean jam bun, Custard cream bun, Jam bun, Cornet with chocolate cream	
Cereals	oreals 1 Wheat/ Wheat products	2		Udon (Japanese noodles)/ Chinese noodles	6	Udon (Japanese noodles, wet form, raw), Udon (Japanese noodles, wet form, boiled), Udon (Japanese noodles, wet form, boiled) for school lunch, Hoshi-udon (Japanese noodles, dry form, raw), Hoshi-udon (Japanese noodles, dry form, boiled), Somen and Hiyamugi (Japanese noodles, dry form, raw), Somen and Hiyamugi (Japanese noodles, dry form, raw), Somen and Hiyamugi (Japanese noodles, dry form, boiled), Tenobe-somen and Tenobe-hiyamugi (Japanese noodles, dry form, raw), Tenobe-somen and Tenobe-hiyamugi (Japanese noodles, dry form, raw), Tenobe-somen and Tenobe-hiyamugi (Japanese noodles, dry form, boiled), Chinese noodles (wet form, raw), Chinese noodles (wet form, boiled), Statemed Chinese noodles, Dried Chinese noodles (boiled), Okinawa noodles (wet form, raw), Dried Okinawa noodles (wet form, boiled)	
			Precooked Chinese Noodles	7	Precooked Chinese noodles (dried by frying, seasoned), Precooked Chinese noodles (dried by frying), Precooked Chinese noodles (dried by frying), Precooked Chinese noodles (dried by hot air), Chinese style instant cup noodles (dried by frying), Instant cup fried noodles (dried by frying), Chinese style instant cup noodles (dried by hot air), Japanese style instant cup noodles (dried by frying)		
				Pasta	8	Macaroni, Spaghetti, Macaroni (dry form, boiled), Spaghetti (dry form, boiled)	
				Other Wheat products	9	<i>Fu</i> : gluten products (steamed type ; <i>Nama-fu</i> , baked type; <i>Kanze-fu</i> , <i>Komachi-fu</i> , <i>Ita-fu</i> , <i>Kuruma-fu</i> , steamed tubular type; <i>Chikuwa-fu</i> ), Wheat germ, Chio tzu pastry, Shao mai pastry, Pizza crust, Bread crumbs (wet form), Bread crumbs (semi-dry form), Bread crumbs (dry form)	
		Other cereals/ Other cereals products		Buckwheat/ buckwheat products	10	Buckwheat flour (whole grain, including the hull), Buckwheat flour (inner layer), Buckwheat flour (middle layer), Buckwheat flour (outer layer), Parboiled grain, Buckwheat noodles (wet form, raw), Buckwheat noodles (wet form, boiled), Dried buckwheat noodles (dry form, taw), Dried buckwheat noodles (dry form, boiled)	
			3	Corn/ Corn	11	Corn (whole grain, raw), Cultivar: Cuzco (oil-roasted and salted), Popcorn, Corn flakes	
				products Others	12	Amaranth, Foxtail millet ( <i>Awa</i> ), Glutinous cake, Oatmeal, Under-milled pressed grain, Pressed grain, Splited grain, Noodles (dry form, raw), Noodles (dry form, boiled), Roasted flour, Proso millet ( <i>Kibi</i> ), Glutinous millet, Job's tears, Japanese barnyard millet ( <i>Hie</i> ), Sorghum (milled grain), Whole grain rye flour, Rye flour	
Potatoes and				Sweet potatoes/ Sweet potato products	13	Sweet potatoes, Sweet potatoes (steamed), Sweet potatoes (baked), Sweet potatoes (dried)	
Starches		Potatoes/ Potato products	4	4	Potatoes/ Potato products	14	Potatoes, Potatoes (steamed), Potatoes (boiled), Mashed potatoes (dried)
	2			Others	15	Jerusalem-artichoke, Konjac (fine powder), Konjac (block), Konjac (made from corm), Konjac noodles, Taro, Taro (boiled), Taro (frozen), <i>Mizuimo, Mizuimo</i> (boiled), <i>Yatsugashira, Yatsugashira</i> (boiled), <i>Ichoimo, Nagaimo, Nagaimo</i> (boiled), <i>Yamatoimo</i> , Japanese vam, White vam	
		Starch / Starch products	5	Starch / Starch products	16	Tapioca (Cassava starch), Kudzu starch, Rice starch, Wheat starch, sweet potato starch, Potato starch, Corn starch, Kudzu starch noodle (dried), Kudzu starch noodle (boiled), Tapioca pearls, <i>Ryokuto-harusame</i> (mung bean starch vermicelli), <i>Harusame</i> (bean-starch vermicelli)	
Sugar and Sweetener	3	Sugar and	6	Sugar and	17	Brown sugar lumb, <i>Wasanbonto</i> , Soft sugar (white), Soft sugar (yellow), Granulated sugar, Coarse crystal (superior), Coarse crystal (medium), Cubes, Crystal candy sugar, Candy sugar for coffee, Powdered sugar, Glucose syrup, Honey, <u>Maple syrup</u>	
		Sweetener		Sweetener Soybeans (whole beans and its products)	18	Soybeans (domestic, dried, raw), Soybeans (domestic, dried, boiled), Soybeans (U.S.A., dried, raw), Soybeans (China, dried, raw), Soybeans (Brazil, dried, raw), Soybeans canned in water, <i>Kinako</i> (soybean flour, whole bean type), <i>Kinako</i> (soybean flour, hulled bean type), <i>Budo-mame</i> Sweet (boiled)	
		Soybean and,		Tofu (Bean curd)	19	Momen-tofu, Kinugoshi-tofu, Soft-tofu, Packed Tofu, Okinawa-tofu, Yushi-tofu, Yaki-tofu, Kori-tofu, Tofu-yo, Tofu-chikuwa (steamed), Tofu-chikuwa (baked)	
		Soybean products	7	Age (Fried Tofu)	20	Nama-age (deep-fried thick bean curd), Abura-age (deep-fried thin bean curd), Ganmodoki (fried bean curd cake with vegetables and other ingredients in it)	
Pulses	Pulses 4			Natto (Fermented soybeans)	21	Itohiki-natto, Hikiwari-natto, Goto-natto, Tera-natto (Shiokara-natto, Hama-natto)	
				Other soybean products	22	Okara (tofu refuse, traditional product), Okara (tofu refuse, modern product), Soy milk, Soy milk (reconstituted type), Soy milk (drink type, coffee flavored), Yuba (wet type), Yuba (dried type), Kinzanji-miso, Hishio-miso	
		Other pulses and its products		Other pulses and its products	23	Dried Adzuki beans (dried red beans, raw), Dried Adzuk beans (dried red beans, boiled), Boiled Adzuki beans canned in syrup, An: Bean paste (Koshi-an, Sarashi-an, Tsubushi-an, Kidney beans (dried, raw), Kidney beans (dried, boiled), Uzura-mame (boiled beans), Koshi-an made from kidney beans, Mame-kinton, Peas (dried, raw), Peas (dried, boiled), Peas (oil-roasted and salted), Shio-mame, Uguisu-mame, Cowpeas (dried, raw), Cowpeas (dried, row), Broad beans (dried, raw), Broad beans (oil-roasted and salted), Otafuku-mame, Fuki-mame, Rice beans (dried, raw), Chickpeas (dried, raw), Chickpeas (dried, boiled), Chickpeas (oil-roasted and salted), Scarlet runner beans (dried, raw), Scarlet runner beans (dried, boiled), Lima beans (dried, raw), Mung beans (dried, raw), Mung beans (dried, boiled),Lentils (dried, raw)	

Nuts and Seeds	5	Nuts and Seeds	9	Nuts and Seeds	24	Almonds, Almonds (oil-roasted and salted)Hempseeds, Perilla seeds, Cashew nuts (oil-roasted and salted), Pumpkin seeds (roasted and salted), Japanese torreya seeds (roasted), Ginkgo nuts, Ginkgo nuts (boiled), Japanese chestnuts, Japanese chestnuts ( <i>kanroni</i> ), Roasted Chinese chestnuts, Walnuts (roasted), Poppy seed, Coconut powder, Sesame seeds (dried), Sesame seeds (troasted), Sesame seeds (troasted), Sesame seeds (troasted), Sesame seeds (dried), Sweet acorn, Watermelon seeds (roasted and salted), Japanese chestnuts (steamed), Lotus seeds (raw), Lotus seeds (dried), Water chestnuts (raw), Pistachio nuts (roasted and salted), Sunflower seeds (oil-roasted and salted), Brazil nuts (oil-roasted and salted), Hazelnuts (oil-roasted and salted), Pecan nuts (oil-roasted and salted), Macadamia nuts (roasted and salted), Pine nuts, Pine nuts (roasted), Peanuts (roasted), Peanuts (roasted), Peanuts (troasted), Peanuts (
				Tomatoes	25	Tomatoes, Cherry tomatoes, Tomatoes (canned products, whole)
				Carrot Spinach	26 27	Ha-ninjin, Carrot, Carrot (boiled), Carrot (without skin), Carrot (without skin, boiled), Carrot (frozen), Kintoki (Kyo-ninjin), Kintoki (boiled), Kintoki (without skin), Kintoki (without skin, boiled), Mini-kyrotto Spinach, Spinach (boiled), Spinach (frozen)
				Sweet peppers	28	Green sweet pepper, Green sweet pepper (sautéed), Red sweet pepper, Red sweet pepper (sautéed), Yellow sweet pepper,
	6	Green and yellow vegetables	10	Others	29	Yellow sweet pepper (sautéed), <i>Tomapi</i> <i>Asstsuki</i> (chives), <i>Asatsuki</i> (chives, boiled), <i>Ashitaba</i> , <i>Ashitaba</i> (boiled), Green asparagus, Green asparagus (boiled), Asparagus canned in brine, Asparagus (white), <i>Sayaingen</i> (kidney beans), <i>Sayaingen</i> (kidney beans, boiled) Endive, Domiao, <i>Sayaendo</i> (field pea), <i>Sayaendo</i> (field pea, boiled), <i>Osaka-shirona</i> , <i>Osaka-shirona</i> (boiled), Saltwort, Saltwort (boiled), Okra, Okra (boiled), Turnip leaves, Turnip leaves (boiled), Japanese pumpkin, Japanese pumpkin (boiled), Buttercup squash, Buttercup squash (boiled), Buttercup squash (frozen), Spaghetti squash, Leaf mustard, <i>Gyoja-ninniku, Kyona</i> , <i>Kyona</i> (boiled), Qin cai, Qin cai (boiled), Watercress, Kale, <i>Kogomi, Komatsuna, Komatsuna</i> (boiled), Shandong cai, Shandong cai (boiled), Sweet pepper, Perilla leaves, Perilla seeds, Yard beans, Yard beans (boiled), Garland chrysanthemum, Garland chrysanthemum (boiled), Water shield bottled in water, <i>Sugukina</i> (leaves), Water dropwort, Water dropwort (boiled), Ta cai, Ta cai (boiled), <i>Kaiware-daikon</i> (white radish shoots), <i>Ha-daikon</i> , Japanese angelica-tree, Japanese angelica-tree (boiled), Qing gin cai, Qing gin cai (boiled), Field horsetail, Field horsetail (boiled), New Zealand spinach, Malabar nightshade, Malabar nightshade (boiled), Red peppers leaves, Red peppers leaves (sautéed), Red peppers, Red peppers (dried), Summer cypress seeds (boiled), <i>Nagasaki-hakusai</i> , <i>Nagasaki-hakusai</i> (boiled), Shepherds' purse, Rape (flower buds and stems), Rape (flower buds and stems, boiled), Raki-ninniku, <i>Kuki-ninniku</i> (boiled), <i>Ne-uki-ninniku</i> (boiled), <i>Ha-negi</i> (welsh onion), <i>Konegi</i> , <i>Nozawana</i> , Red garlic, Bai cai, Basil, Parsley, <i>Hinona</i> , <i>Hiroshimana</i> , Swiss chard, Swiss chard (boiled), Broccoli, Broccoli (boiled), <i>Mizukakena</i> , <i>Kiri-mitsuba</i> , <i>Kiri-mitsuba</i> (boiled), <i>Ne-mitsuba</i> , <i>Ito-mitsuba</i> , <i>Ito-mitsuba</i> (boiled), Brussels sprouts, Brussels sprouts(boiled), Water pepper spouts, Tossa jute, Tossa jute (boiled), Water convolvulus, Water convol
				Cabbage	30	lettuce, Rocket salad, Turfed stone leeks, Turfed stone leeks (boiled) Cabbage, Cabbage (boiled), Green ball, Red cabbage
Vasatablaa				Cucumber	31	Cucumber
vegetables	ables		Daikon (Japanese white radish)	32	Japanese white radish, Japanese white radish (boiled), Japanese white radish (without skin), Japanese white radish (without skin, boiled), <i>Kiriboshi-daikon</i>	
				Onion	33	Onion, Onion (leached in water), Onion (boiled), Red onion
			I	Chinese Cabbage	34	Chinese cabbage, Chinese cabbage (boiled)
		Other vegetables 11	11	Others	35	Artichoke, Artichoke (boiled), <i>Udo, Yama-udo, Edamame</i> (young soybeans in the pod), <i>Edamame</i> (young soybeans in the pod, boiled), <i>Edamame</i> (young soybeans in the pod, frozen), Snap peas, Green peas, Green peas (boiled), Green peas (frozen), Green peas canned in water, Turnip, Turnip(boiled), Turnip without skin, Turnip without skin (boiled), Cauliflower, Cauliflower (boiled), <i>Kanpyo</i> (raw), <i>Kanpyo</i> (boiled), Chrysanthemum, Chrysanthemum (boiled), <i>Kikunori</i> , Arrowhead, Arrowhead (boiled), Kohlrabi, Kohlrabi (boiled), Edible burdock, Edible burdock (boiled), Winged beans, <i>Ha-shoga</i> , Ginger, Oriental pickling melon, <i>Zuiki</i> (aroid, raw), <i>Zuiki</i> (aroid, boiled), Dried <i>Zuiki</i> (raw), Dried <i>Zuiki</i> (boiled), <i>Sugukina</i> (root), Zucchini, Celery, Royal fern, Royal fern (boiled), Royal fern (dried), Royal fern (dried), boiled), Broad beans, Broad beans (boiled), Bamboo shoots, boiled), Bamboo sprout (canned in water), Chicory, Japanese silverleaf, Japanese (boiled), Sweet corn (immature kernels , frozen), Sweet corn (canned products, cream style), Sweet corn (canned products, whole kernel style), Young sweet corn, Red chicory, Eggplant, Eggplant (boiled), Eggplant (Western type), Eggplant (Western type), Fried), Bitter gourd, Bitter gourd (sauteed), Garlic, Radish, Chayote, Table beet, Table beet (boiled), Japanese butterbur, Japanese butterbur(boiled), H <i>xinoto</i> (butterbur sprout), <i>Fukinoto</i> (butterbur sprout, boiled), Hyacinth beans, Sponge gourd, Sponge gourd, Sponge sprouts, Soybean sprouts (boiled), Black gram sprouts, Black gram sprouts (boiled), Head lettuce (crisp type), Cos lettuce, East Indian lotus root, East Indian lotus root (boiled), <i>Wasabi</i> (raw), Bracken (raw), Bracken (dried)
		Vegetable juices	12	Vegetable juices	36	Canned tomato juice, Canned tomato juice cocktail, Canned carrot juice
				Leaf vegetables	37	Osaka-shirona (salted pickles), Turnip leaves (salted pickles), Turnip leaves (Nukamiso-zuke), Leaf mustard (salted pickles), Kyona (salted pickles),Shandong cai (salted pickles), Taisai (salted pickles), Takana (broad leaf mustard, salted pickles), Nozawana (salted pickles), Nozawana (pickles, seasoned), Chinese cabbage (salted pickles), Kim chee, Hinona (pickles, sweetened), Hiroshimana (salted pickles), Mizukakena (salted pickles)
		Pickles	13	Japanese white radish and others	38	Turnip (salted pickles), Turnip without skin (salted pickles), Turnip ( <i>Nukamiso-zuke</i> ), Turnip without skin ( <i>Nukamiso-zuke</i> ), Cucumber (salted pickles), Cucumber (pickled in soy sauce), Cucumber( <i>Nukamiso-zuke</i> ), Sweet type pickles, Sour type pickles, <i>Zha Cai</i> , Ginger (pickles), Ginger (pickles, sweetened), Oriental pickling melon (salted pickles), Oriental pickling melon ( <i>Nara-zuke</i> ), <i>Sugukina</i> (pickles), Japanese white radish ( <i>Nukamiso-zuke</i> ), <i>Shiooshidaikon (Takuan-zuke</i> ), <i>Hoshidaikon (Takuan-zuke</i> ), <i>Moriguchi-zuke</i> , Japanese white radish ( <i>Bettara-zuke</i> ), Japanese white radish ( <i>Miso-zuke</i> ), <i>Fukujin-zuke</i> , Shinachiku (desalted), Eggplant (salted pickles), Fggplant( <i>Nukamiso-zuke</i> ), Eggplant ( <i>Koji-zuke</i> ), Eggplant ( <i>Karashi-zuke</i> ), Eggplant ( <i>Shiba-zuke</i> ), Chayote (salted pickles), <i>Yamagobo (Miso-zuke</i> ), Scallion (raw), Scallion (pickles, seasoned), <i>Uureboshi</i> , <i>Uureboshi</i> , <i>Uureboshi</i> , <i>Uureboshi</i> , (pickles, seasoned), <i>Uureboshi</i> , <i>Uureboshi</i> , (pickles, seasoned), <i>Uureboshi</i> , (pickles, seasoned), <i>Euclid pickles</i> ). Pickled eliure, ( <i>Surgel and Cure Shiba eliure)</i> , ( <i>Surgel and Cure Shiba eliure)</i> , Pickled eliure, ( <i>Surgel and Cure Shiba eliure)</i> , ( <i>Surgel aliane</i> ), ( <i>Surge</i>
Fruits	7	Fruits	14	Strawberry	39	Umebishio, Pickled olives (green olives), Pickled olives (ripe olives), Pickled olives (stuffed olives) Strawberry
	L /	1 14165		Suunoony	~/	

						lyokan, Mandarin orange (early ripening type), Satsuma mandarin, Mandarin orange (early ripening type , juice sacs), Satsuma mandarin (juice sacs), Mandarin orange canned in light syrup (solids), Navel, Valencia, Oroblanco, Kumquat,
				Citrus fruits	40	Grapefruit, Grapefruit canned in light syrup, Sanbokan, Sudachi (skin), Tangors, Tangelos, Natsumikan, Natsumikan canned in heavy syrup, Hassaku, Hyuganatsu, Hyuganatsu (juice sacs), Pummelo, Pummelo (candied peel), Ponkan, Yuzu (peel), Lemon (whole)
				Banana	41	Banana, Banana (dried)
				Apple	42	Apples, Apples canned in heavy syrup
				Others	43	Akebia (flesh), Akebia (skin), Acerola, Atemoya, Avocado, Apricot, Dried Apricot, Apricot canned in heavy syrup, Fig, Dried fig, Fig canned in heavy syrup, <i>Ume</i> (Japanese apricot), Japanese persimmon (nonastringent), Japanese persimmon (astringency removed), Japanese persimmon (dried), Chinese quince, Kiwifruit, Kiwano, Guava, Gooseberry, Oleaster, Coconut milk, Starfruit, Cherry, Cherry (U.S.A.), Cherry canned in heavy syrup, Pear canned in heavy syrup, Chinese pear, European plum (raw), European plum (dried), Cherimoya, Durian, Japanese Pear, Pear canned in heavy syrup, Chinese pear, European pear canned in heavy syrup, Jujube (dried), Date (dried), Pineapple canned in heavy syrup, Syrup, Pineapple (candied), Blue-berried honesyuckle, Papaya, Papaya (unripe), Pitaya, Loquat, Loquat canned in heavy syrup, Melon (greenhouse culture), Melon (open culture), Peach, Peach canned in heavy syrup (solids), Nectarine, Chinese bayberry, Lychee, Raspberry, Longan (dried)
		Jams	15	Jams	44	Apricot jam (heavily sweetened), Apricot jam (lightly sweetened), Strawberry jam (heavily sweetened), Strawberry jam (lightly sweetened), Marmalade (lightly sweetened), Grape jam, Blueberry jam, Apple jam
		Fresh Fruit / fruit juice beverages	16	Fresh Fruit/ fruit juice beverages	45	10% Acerola juice beverage, 20% Ume juice beverage, Straight mandarin juice (natural juice), Reconstituted mandarin juice, Mandarin juice with juice sacs, 50% mandarin juice beverage, 20% mandarin juice (natural juice), Reconstituted mandarin ight syrup (liquid), Straight orange juice ( natural juice ), Reconstituted orange juice, 50% orange juice beverage, 30% orange juice beverage, <i>Kabosu</i> juice, 20% guava juice beverage (nectar), 10% guava juice beverage, Straight grapefruit juice ( natural juice ), Reconstituted grapefruit juice, 50% grapefruit juice beverage, 20% grapefruit juice ( natural juice ), Reconstituted grapefruit juice, 50% grapefruit juice beverage, 20% grapefruit juice ( natural juice, 50% pineapple juice, Sour orange juice, Straight pineapple juice ( natural juice ), Reconstituted pineapple juice, 50% pineapple juice beverage, 10% pineapple juice beverage, Passion fruit juice, Straight grape juice ( natural juice ), Reconstituted grape juice, 70% grape juice beverage, 10% grape juice beverage, 30% peach juice beverage (nectar), Peach canned in light syrup (liquid), <i>Xuzu</i> juice, Lime juice, Straight apple juice ( natural juice ), Reconstituted apple juice, 50% apple juice beverage, 30% apple juice beverage, Lemon juice
Mushrooms	8	Mushrooms	17	Mushrooms	46	Winter mushroom, Winter mushroom (boiled), Winter mushroom (bottled in seasoning), Kuro-kikurage (dried, grayish brown), Kuro-kikurage (dried, , boiled), Shiro-kikurage (dried), Shiro-kikurage (dried, boiled), Kuroawabitake, Shiitake (raw), Shiitake (raw, boiled), Shiitake (dried), Shiitake (dried, boiled), Hatakeshimeji, Bunashimeji, Bunashimeji (boiled), Honshimeji, Tamogitake, Nameko, Nameko (boiled), Nameko (canned in brine), Numerisugitake, Thin oyster mushroom, Eringii, Oyster mushroom, Oyster mushroom (boiled), Maitake, Maitake (boiled), Maitake (dried), Common mushroom , Common mushroom (boiled), Common mushroom (canned in brine, solids), Matsutake , Matsutake (canned in brine, solids), Yanagimatsutake
Algae	9	Algae	18	Algae	47	Sea lettuce (dried), Green laver, Laver (dried purple laver), Toasted purple laver/Unknown type of laver, Seasoned and toasted purple laver, Arame (steamed and dried), Iwa-nori (mixed with water, screened, and dried), Ego-nori (dried), Okyuto, Ogo-nori (salted, desalted), Kawa-nori (dried), Umibudou, Rausu-konbu, Gagome-konbu (dried), Naga-konbu, Matsumae-konbu, Ma-konbu (dried) /Unknown type of konbu (dried), Hidaka-konbu, Rishiri-konbu, Kizami-konbu, Kezuri-konbu, Shio-konbu, Konbu-tsukudani, Suizenji-nori (dried, soaked in water), Tengusa (dried), Tokoroten, Agar-agar, Agar jelly, Tosaka-nori (red, salted, desalted), Tosaka-nori (green, salted, desalted), Hijiki (boiled and dried), Hitoegusa (dried), Nori-tsukudani, Fu-nori, Matsumo (dried), Mukade-nori (salted, desalted), Okinawa-mozuku (salted, desalted), Mozuku (salted, desalted), Wakame (raw), Wakame (dried products ), Wakame (dried, soaked in water), Ina-wakame, Wakame (Haiboshi, soaked in water), Wakame (cut and dried), Wakame (raw), Wakame (stripe and center vein, salted, desalted), Wakame (fruit-bearing leaves, raw)
				Mackerels, Sardines	48	Horse mackerel, Horse mackerel (boiled), Horse mackerel (grilled), Atlantic horse mackerel, Atlantic horse mackerel (boiled), Atlantic horse mackerel (grilled), Big-eye sardine, Japanese mackerel (grilled), Big-eye sardine, Japanese anchovy, Japanese pilchard, Japanese pilchard (boiled), Japanese pilchard (grilled), <i>Mezashi</i> (dried sardines), <i>Mezashi</i> (dried sardines, grilled), Mackerel, Mackerel (boiled), Mackerel (grilled), Atlantic mackerel, Atlantic mackerel (boiled), Atlantic mackerel (boiled), Mackerel (boiled), Mackerel (grilled), Atlantic mackerel, Atlantic mackerel (boiled), Mackerel (boiled), Mackerel (grilled), Atlantic mackerel, Atlantic mackerel (boiled), Mackerel (boiled), Atlantic mackerel (boiled), Striped jack (cultured), Pacific herring, Herring Ovary
Fish and Shellfishes	10		19	Salmon, Trout	49	Pink salmon, Pink salmon (grilled), Coho salmon (cultured), Coho salmon (cultured, grilled), Masu salmon <trout>, Masu salmon (grilled), Chum salmon, Chum salmon (boiled), Chum salmon (grilled), Atlantic salmon (cultured) Atlantic salmon (cultured, grilled), Rainbow trout (cultured in sea), Rainbow trout (cultured in sea, grilled), Rainbow trout (cultured in fresh water), Sockeye salmon, Sockeye salmon (grilled), Chinook salmon, Chinook salmon (grilled)</trout>
				Sea breams, Flatfishes	50	Matsubara's red rockfish, Tile fish, Tile fish (boiled), Tile fish (grilled), Japanese parrot fish, Golden-thread, Golden-thread (surimi), Butterfish, Pacific halibut, Brown sole, Brown sole (boiled), Brown sole (grilled), Marbled sole, Flatfish with ovary, Flatfish with ovary (boiled), Sablefish, Alfonsino, Yellow sea bream, Black sea bream, Crimson sea bream, Red sea bream (wild), Red sea bream (cultured), Red sea bream (cultured, boiled), Red sea bream (cultured, grilled), Walleye Pollack, Walleye Pollack (surimi), Cod <i>Sukimidara&gt;</i> , Pacific cod, Pacific cod (grilled), Milt, Bastard halibut (wild), Bastard halibut (cultured), Southern blue whiting

				Tunas, Marlins		Blue marlin, Striped marlin, Swordfish, Skipjack (caught in spring), Skipjack (caught in autumn), Frigate mackerel,													
				and Swordfishes	51	Skipjack (Namari-bushi, steamed), Yellowfin tuna, Bluefin tuna, (lean meat), Bluefin tuna (fatty meat), Albacore, Southern bluefin tuna (fatty meat), Young bluefin tuna, Big-eye tuna													
		Raw fishes and shellfishes	19	19	19	19	19	19	19	19	19	19	19	19	19	Other raw fishes	52	Fat greenling, Common Japanese conger, Common Japanese conger (steamed), Amago salmon (cultured), Sweet fish (wild), Sweet fish (wild, baked), Sweet fish(viscera), Sweet fish (viscera, baked), Sweet fish (cultured), Sweet fish (cultured, baked), Sweet fish (cultured, viscera), Sweet fish (wild, viscera, baked), Pacific Ocean perch, Anglerfish, Anglerfish (liver, viscera), Japanese sand lance, Three-line grunt, Char (cultured), Japanese dace, Japanese eel (cultured), Japanese eel (liver, viscera), Japanese eel ( <i>Shirayaki</i> ), Japanese eel, ( <i>Kabayaki</i> ), Filefish, Rays, Lizardfish, Pale chub, Angry rockfish; Devil stinger, Scorpion fish, Japanese sculpin, Japanese sculpin (boiled), barracuda, barracuda (baked), Filefish, Amberjack, Japanese whiting, Kichiji rockfish, Blue sprat, Kingklip, Croaker, Croaker (baked), Carp (cultured), Carp (cultured, boiled), Carp (cultured, viscera), Bar-tailed flathead, Big-eye flathead, Gizzard shad, Dogfish, Blue shark, Dried shark fin, Halfbeak, Spanish mackerel, Spanish mackerel (baked), Dolphin fish, Sole, Japanese icefish, Silver warehou, Japanese seaperch, Black-tipped fusilier, Yellowstriped butterfish, Hairtail, Japanese surfsmelt, Tilapia, Loach (boiled), Flying fish, Catfish, Japanese argentine, Yellowfin goby, Sandfish, Spangled emperor, Conger pike, Barracuda, Goldstriped amberjack, Ocellate puffer (cultured), Purple puffer, Crucian carp, Crucian carp (boiled), Yellowtail, Yellowtail (baked), Young yellowtail (cultured), Gurnard, Hoki, Atka mackerel, Striped mullet, Willow shiner, Southern black cod, greenling, Silver pomfret, Japanese bluefish, Japanese bluefish (boiled), Girella, Black rockfish, Hake, Lamprey, Masu trout (cultured), Pond smelt	
				Shellfishes	53	Bloody clams, Jackknife clams, Short-necked clams, Abalone, Mussels; Blue mussels, Japanese scallops (cultured), Oysters (cultured), Oysters (cultured), Difference of the short of the sho													
				Squids, octopuses	54	Flying squid, Swordtip squid, Cuttlefish, Japanese common squid, Japanese common squid (boiled), Japanese common squid (baked), Firefly squids, Firefly squids (boiled), Spear squid, Ocellated octopuses, Common octopus, Common octopus (boiled), Sea cucumber, Sea squirt													
			Prawns, Shrimps, Crabs	55	Northern shrimp, Japanese spiny lobster, Tiger prawn(cultured), Tiger prawn (cultured, boiled), Tiger prawn (cultured, baked), Dried sakura shrimps (boiled), Oriental shrimp, Shiba shrimp, Giant tiger shrimp (cultured), Blue crab, Horsehair crab, Horsehair crab (boiled), Snow crab, Snow crab (boiled), King crab, King crab (boiled), Antarctic krills, Antarctic krills (boiled), Boiled squill														
Fish and Shellfishes			Seafood (salted, semi-dried and fully-dried )	56	Horse mackerel (Hirakiboshi), Horse mackerel (Hirakiboshi, baked), Brownstriped mackerel scad (Hirakiboshi), Brownstriped mackerel scad (Kusaya), Uruka, Japanese sand lance (Niboshi), Big-eye sardine (Maruboshi), Japanese anchovy (Niboshi), Japanese pilchard (Shioiwashi), Japanese pilchard (Namaboshi), Japanese pilchard (Maruboshi), Shirasuboshi, Shirasuboshi (Chilimen), Tatamiiwashi, Japanese anchovy (Mirinboshi), Japanese pilchard (Maruboshi), Filefish (Ajitsuke-hirakiboshi), Skipjack (Namari-bushi, Katsuo-bushi, Kezuri-bushi, Kezuri-bushi tsukudani), Skipjack (Shiokara, viscera, syutou), Dried right-eye flounder, Blue sprat (seasoned and dried), Caviar, Gizzard shad (Amazu-zuke), Salted pink salmon, Aramaki salmon, Aramaki salmon(baked), Shiozake, Ikura, Sujiko, Mefun, Sockeye salmon (smoked), Saba-bushi, Shiosaba, Mackerel (Hirakiboshi), Pacific saury (Hirakiboshi), Pacific saury (Mirinboshi), Shisyamo smelt (semi-dried), Shisyamo smelt (semi-dried, baked), Atlantic capelin (semi-dried), Atlantic capelin (semi-dried, caked), Tarako, Tarako (baked), Karashi-mentaiko, Salted fillet, Cod fish (Dried split), Cod fish (Denbu), Pacific herring (Migaki-nishin), Pacific herring (Hirakiboshi), Pacific herring (smoked), Ovary (dried), Ovary (salted, desalted), Sandrish (Namaboshi), Atka mackerel (salted), Atka mackerel (Hirakiboshi), Karasumi, Lamprey (dried), Abalone (steamed and dried), Abalone (Shiokara), Scallops (adductor muscle, dried), Sakura shrimps (dried), Sakura shrimps (Nimoshi), Shrimp (boiled and dried shrimps), Crab (Ganzuke), Firefly squids (seasoned and smoked), Surume, Squid (Saki-ika), Squid (seasoned and smoked), Squid (Shiokara, Akazukuri), Opossum shrimps (Shiokara), Sea Urchin (Tsubu-uni), Sea urchin (Neri-uni), Jellyfish (salted, desalted), Sea cucumber (Konowata), Sea squirt (Shiokara)														
		20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	Seafood (canned)	57	Sardine (canned in brine), Sardine (canned with seasoning), Sardine (canned in tomato sauce), Sardine (canned in oil), Sardine (canned, <i>Kabayaki</i> ), Skipjack (canned with seasoning), Skipjack (canned in oil), Pink salmon (canned in brine), Chum salmon (canned in brine), Mackerel (canned in brine), Mackerel (canned, <i>Miso-ni</i> ), Mackerel (canned with seasoning), Pacific saury (canned in brine), Pacific saury (canned, <i>Kabayaki</i> ), Tuna (canned, light meat in brine), Tuna (canned, white meat in brine), Tuna (canned with seasoning), Tuna (canned, light meat in oil), Short-necked clams (canned in brine), Short-necked clams (canned in brine), Apple snails (canned in brine), Oysters (canned in oil, smoked), Topshells (canned with seasoning), Scallops (adductor muscle, canned in brine), Ark shells (canned with seasoning), Snow crab (canned in brine), King crab (canned in brine), Squid (canned with seasoning)
				Seafood (Tshukudani)	58	Japanese sand lance ( <i>Tsukudani</i> ), Japanese sand lance ( <i>Ameni</i> ), Japanese anchovy ( <i>Tazukuri</i> ), Japanese sculpin ( <i>Tsukudani</i> ), Skipjack( <i>Kakuni</i> ), Yellowfin goby ( <i>Tsukudani</i> ), Yellowfin goby ( <i>Kanroni</i> ), Crucian carp ( <i>Kanroni</i> ), Pond smelt ( <i>Tsukudani</i> ), Pond smelt ( <i>Ameni</i> ), Short-necked clams ( <i>Tsukudani</i> ), Hard clams ( <i>Tsukudani</i> ), Shrimp ( <i>Tsukudani</i> ), Firefly squids ( <i>Tsukudani</i> ), Squid ( <i>Kiriika-ameni</i> ), Squid (Ika-arare), Opossum shrimps ( <i>Tsukudani</i> )													
				Seafood (Fish paste)	59	Kanifumi-kamaboko, Kobumaki-kamaboko, Sumaki-kamaboko, Mushi-kamaboko, Yakinuki-kamaboko, Yaki-chikuwa, Datemaki, Tsumire, Naruto, Hanpen, Satsuma-age													
				Fish ham and sausage	60	Fish ham, Fish sausate													

						Church (Innersee head) Church (mithaut auk interess of the second head) Church (Interessed head) (Church (Mithaut auk interess) of the second head)
		11 Animal meats 21	21	Beefs	61	Chuck (Japanese beef), Chuck (without subcutaneous fat, Japanese beef), Chuck (Lean, Japanese beef), Chuck (fat, Japanese beef), Chuck loin (Japanese beef), Chuck loin (without subcutaneous fat), Chuck loin (lean, Japanese beef), Rib loin (Japanese beef), Rib loin (without subcutaneous fat), Rib loin (fat, Japanese beef), Rib loin (Japanese beef), Ribi loin (without subcutaneous fat), Sirloin (Japanese beef), Sirloin (without subcutaneous fat), Sirloin (lean, Japanese beef), Rib loin (fat, Japanese beef), Inside round (without subcutaneous fat, Japanese beef), Inside round (lean, Japanese beef), Inside round (lat, Japanese beef), Outside round (Japanese beef), Rump (Japanese beef), Rump (Japanese beef), Rump (Japanese beef), Rump (without subcutaneous fat, Japanese beef), Rump (lean, Japanese beef), Rump (Japanese beef), Rump (without subcutaneous fat), Joutside round (lean, Japanese beef), Rump (Japanese beef), Rump (without subcutaneous fat), Chuck (fat), Chuck loin (beked), Rib loin (without subcutaneous fat), Chuck (fat), Chuck loin (beked), Rib loin (without subcutaneous fat), Chuck (fat), Chuck loin (without subcutaneous fat), Chuck loin (lean), Rib loin (without subcutaneous fat), Sirloin (without subcutaneous fat), Rib loin (fat), Outside round (without subcutaneous fat), Inside round (without subcutaneous fat, Sirloin (without subcutaneous fat), Outside round (without subcutaneous fat), Sirloin (without subcutaneous fat), Outside round (without subcutaneous fat), Outside round (without subcutaneous fat), Outside round (without subcutaneous fat), Sirloin (without subcutaneous fat), Outside round (lean), Rump (without subcutaneous fat), Rump (lean, Japanese beef), Fillet, Chuck (imported beef), Chuck (without subcutaneous fat, imported beef), Chuck loin (imported beef), Chuck loin (without subcutaneous fat, imported beef), Chuck loin (imported beef), Chuck loin (without subcutaneous fat, imported beef), Chuck loin (imported beef), Sirloin (without subcutaneous fat, imported beef), Chuck loin (imported be
Meats	11			Porks	62	Pienic shoulder, Pienic shoulder (without subcutaneous fat), Pienic shoulder (lean), Pienic shoulder (fat), Boston butt, Boston butt (without subcutaneous fat), Boston butt (lean), Boston butt (fat), Loin, Loin (without subcutaneous fat, baked), Loin (boiled), Loin (without subcutaneous fat), Boston butt (lean), Boston butt (fat), Belly, Inside ham, Inside ham (without subcutaneous fat, baked), Inside ham (lean), Outside ham (lean), Outside ham (without subcutaneous fat), Outside ham (lean), Outside ham (lean, Wurobuta pork, medium type breed), Pienic shoulder (Kurobuta pork, medium type breed), Pienic shoulder (fat, Kurobuta pork, medium type breed), Pienic shoulder (fat, Kurobuta pork, medium type breed), Boston butt (kurobuta pork, medium type breed), Loin (kurobuta pork, medium type breed), Boston butt (lean, Kurobuta pork, medium type breed), Inside ham (kurobuta pork, medium type breed), Inside ham (itat, Kurobuta pork, medium type breed), Outside ham (kurobuta pork, medium type breed), Ou
				Hams and sausages	63	Bone-in ham, Boneless ham, Loin ham, Shoulder ham, Pressed ham, Mixed pressed ham, Chopped ham, Fresh uncooked ham, Ripened uncooked ham, Bacon, Bacon (loin), Bacon (shoulder), Vienna sausage, Semi-dry sausage, Dry sausage, Frankfurter sausage, Bologna sausage, Lyoner sausage, Liver sausage, Mixed sausage, Fresh sausage, Roast pork
				Other animal meats	64	Wild boar, Inobuta, Rabbit (lean), Horse meat, Deer, Mutton (loin), Mutton (leg), Lamb (shoulder), Lamb (loin), Lamb (leg), Goat (lean)
		Chicken and poultries	22	Chicken	65	Wing (fowl meat), Breast (without skin), Breast (fowl meat, without skin), Thigh (fowl meat), Thigh (fowl meat, without skin), Thigh (fowl meat, without skin), Sasami (fowl meat), Wing, Breast, Breast (without skin), Thigh (baked), Thigh (boiled), Thigh (without skin), Thigh (without skin, baked), Thigh (without skin, baked), Thigh (without skin, boiled), Sasami (baked), Sasami (boiled), Ground poultry, Skin (breast), Skin (thigh), Cartilage bone, Roast meat (canned with seasoning)
				Poultries	66	Aigamo, Duck (domesticated), Japanese quail, Duck (wild), Duck (wild, without skin), Common pheasant (without skin), Turkey (without skin) U, Sparrow, Pigeon (without skin), Guinea fowl (without skin)
		Meats (Offals)	23	Meats (Offals)	67	Heart (beef), Liver (beef), Kidney (beef), Rumen (beef)/Unknown type of offal (beef), Reticulum (beef), Omasum (beef), Abomasum (beef), Small intestine (beef), Large intestine (beef), Rectum (beef), Uterus (beef), Heart (pork), Liver (pork), Kidney (pork), Stomach (pork, boiled), Small intestine (pork, boiled), Large intestine (pork, boiled), Uterus (pork), Liver paste, Smoked liver, Heart (chicken), Liver (chicken), Gizzard (chicken), Foie gras (boiled)
				Whale meat	68	Whale meat, Whale (ventral groove meat), Whale (blubber), Sarashi-kujira
		Others	24	Other meats, processed products	69	Rice hopper (Thukudani), Bullfrog, Snapping turtle, Maggot (canned with seasoning)
Eggs	12	Eggs	25	Eggs	70	Silky fowl's eggs, Japanese quail's eggs, Japanese quail's eggs (boiled and canned in brine), Hen's eggs, Boiled eggs, Poached eggs, Hen's eggs (boiled and canned in brine), Sugared whole eggs, Dried whole eggs, Egg yolk, Boiled egg yolk, Dried egg yolk, Egg white, Boiled egg white, Dried egg white, <i>Tamago-dofu, Tamagoyaki</i> (with sugar), <i>Dashimakitamago</i> , Pidan
				Milk	71	Jersey raw milk, Holstein raw milk, Raw milk, Ordinary liquid milk, High fat milk containing recombined milk, Low-fat milk containing recombined milk, Skimmed liquid milk
				Cheese	72	Edam cheese, Emmental cheese, Cottage cheese, Camambert cheese, Cream cheese, Gouda cheese, Cheddar cheese, Grated cheese, Blue cheese, Process cheese, Cheese spread
Milk	Milk and dairy	26	Fermented milk and lactic acid bacteria beverages	73	Yogurt (whole milk, unsweetened), Yogurt (skimmed, sweetened), Liquid type yogurt, Lactic acid bacteria beverage (Ordinary milk-solids, nonfat), Lactic acid bacteria beverage (pasteurized after fermentation, diluted), Lactic acid bacteria beverage (low milk-solids, nonfat)	
		Frome		Other dairy products	74	Coffee flavored milk beverage, Fruit favored milk beverage, Whole milk powder, Skimmed milk powder, Modified milk powder, Evaporated whole milk, Condensed whole milk (sweetened), Cream (milk fat), Cream (milk and vegetable fats), Cream (vegetable fat), Whipped cream (milk fat), Whipped cream (milk fat), Whipped cream (milk and vegetable fats), Whipped cream (vegetable fat), Coffee whitener (liquid, milk fat), Coffee whitener (liquid, milk and vegetable fats), Coffee whitener (liquid, vegetable fat), Coffee whitener (powder, vegetable fat), Ice cream (high fat), Coffee whitener (powder, vegetable fat), Ice cream (high fat), Ice cream (regular fat), Ice milk, Lactic ice (low fat), Soft type ice cream, Sherbet, Cheese whey powder

		Others	27	Others	75	Human milk, Goat milk
-				Butters	76	Salted butter, Unsalted butter, Fermented butter
				Margarines	77	Soft type margarine, Fat spread margarine
Fats and 14 Fats and oils			28	Vegetable fats and oils	78	Olive oil, Sesame oil, Rice bran oil, Sunflower oil, Soybean oil, vegetable oil (blend), Corn oil, Rapeseed oil, Sunflower ( <i>Himawari</i> ) oil, Cottonseed oil, Peanut oil
Olis				Animal fats	79	Beef tallow, Lard
					80	Palm oil, Palm kernel oil, Coconut oil, Shortening
Confection		29	Traditional confectioneries	81	Amanatto (Azuki beans), Amanatto (Kidney beans), Amanatto (Green beans), Aniri-namayatsuhashi, Imagawayaki, Uiro, Uguisu-mochi, Kashiwa-mochi, Kasutera, Kanoko, Karukan, Kibi-dango, Gyuhi, Kirizansyo, Kingyokuto, Kintsuba, Kusa-mochi, Kushi-dango (Azuki bean paste), Kushi-dango (Soy sauce), Geppei, Sakura-mochi (Kanto style), Sakura-mochi (Kansai-style), Daifuku-mochi, Taruto, Chimaki, Chatsu, Dorayaki, Nerikiri, Kasutera-manju, Kuzu-manju, Kuri-manju, To-manju, Mushi-manju, Chinese style steamed bread (Azuki bean paste), Chinese style steamed bread (meat and vegetable), Monaka, Yubeshi, Neri-yokan, Mizu-yokan, Mushi-yokan, Amedama, Imo-karinto, Okoshi, Onoroke-mame, Karinto (brown sugar), Karinto (sugar), Gokabo, Tansan-senbei, Kawara-senbei, Maki-senbei, Nanbu-senbei with sesame seeds, Nanbu-senbei with peanuts, Shiogama, Chinese style cookies, Hina-arare (Kanto style), Hina-arare (Kansai-style), Age-senbei, Amakara-senbei, Arare, Shiokara-senbei, Eisei-boro, Soba-boro, Matsukaze, Mishima-mame, Yatsuhashi, Rakugan, Mugi-rakugan, Morokoshi-rakugan, Wheat flower snack	
eries	15	Confectioneries	29	Cakes and pastries	82	Custard cream puffs (Éclairs), Sponge cake, Short cake, Danish pastry, Yeast leavened doughnut, Cake type doughnut, Pie pastry, Apple pie, Meat pie, Butter cake, Hot cake, Waffle (custard cream), Waffle (jam),
				Biscuits	83	Wafers, Oil-sprayed cracker, Soda cracker, Sablét (shortbread), Puff pie, Hard biscuit, Soft biscuit, Pretzels, Russian cake
			Candies	84	Caramel, Tablet candy (containing fruit juice), Jelly candy, Jellybeans, China marble, Drops, Butterscotch, Brittles (with roasted peanuts), Marshmallows	
	Others				85	Pudding, Custard pudding, Orange jelly, Coffee jelly, Milk jelly, Wine jelly, Bavarian cream, Corn snack, Regular potato chips, Fabricated potate chips, Chocolate biscuits, White chocolate, Milk chocolate, Marrons glacés, Stick gum, Sugar-coated gum, Bubblegum
				Sake	86	Sake, Junmai, Honjozo, Ginjo, Honjozo, Junmai-ginjo, Siro-zake
		Alcoholic	30	Beer	87	Pale beer, Black beer, Stout beer, Happoshu
Beverages	16	beverages		Wines and spirits	88	White wine, Red wine, Rose wine, Shaoxing giu, Shochu (35% alcohol, Ko-rui), Shochu (25% alcohol, Otsu-rui), Whiskey, Brandy, Vodka, Gin, Rum, Maotai giu, Umeshu, Synthetic sake, Medicinal liqueur, Curacao, Fortified wine, Peppermint wine, Vermouth (sweet type), Vermouth (dry type)
				Teas	89	Gyokuro (tea), Gyokuro (infusion), Maccha (powder), Sencha (tea), Sencha (infusion), Kamairi-cha (infusion), Ban-cha (infusion), Hoji-cha (infusion), Genmai-cha (infusion), Oolong tea (infusion), Black tea, Black tea (infusion)
		Other beverages	31	Coffees and cocoas	90	Coffee (filter method, infusion), Instant coffee (powder), Coffee drink, Pure cocoa (powder), Milk cocoa (powder)
				Other beverage	91	Ama-zake, Kobu-cha (powder), Carbonated beverage (fruit flavored and colored drink), Cola drink, Clear soft drink, Mugi-cha (infusion)
				Sources	92	Worcester sauce, Semi-thick type sauce, Thick type sauce (Tonkatsu sauce)
				Soy sauces	93	Koikuchi-syoyu, Usukuchi-syoyu, Tamari-syoyu, Saishikomi-syoyu, Shiro-syoyu
				Salts	94	Common Salt (Syokuen), Common salt (Namien), Refined Salt
			32	Mayonnaise	95	Mayonnaise (whole egg type), Mayonnaise (egg yolk type)
Seasonings	17	Seasonings	32	Miso	96	Sweet type miso, Light yellow type miso, Dark yellow type miso, Barley-koji miso, Soybean-koji miso, Light yellow type miso (powder type), Instant miso (past type)
and spices	÷ 1/			Other seasonings	97	Hon-mirin, Honnaosi mirin, Doubanjiang, Hot pepper sauce, Cayenne pepper oil, Grain vinegar, Rice vinegar, Wine vinegar, Cider vinegar, Katsuo-bushi extract, Katsuo-bushi and kombu extract, Shiitake extract, Niboshi extract, Chicken bone stock, Chicken, pork and vegetables extract, Beef and vegetables extract, Consomme (cubes), Seasoning mix (granule), Mentsuyu (straight), Mentsuyu (triple strength), Oyster sauce extract, Ma Po dow fu sauce, Meet sauce, Tomato puree, Tomato past, Tomato ketchup, Tomato sauce, Chili sauce, Japanese style dressing (oil-free), French dressing, Thousand Island dressing, Curry roux, Hash roux, Sskekasu, Mirinfu-chomiryo
		Spices and others	33	Spices and others	98	Gelatin, Allspice, Onion powder, Mustard powder, Mustard paste, Mustard (prepared, French type), Mustard (grain), Curry powder, Clove, Black pepper, White pepper, Mixed pepper, Japanese pepper, Cinnamon, Ginger (dried, ground), Ginger (paste), Sage, Thyme, Chili powder, Red pepper, Nutmeg, Garlic powder, Garlic paste, Ground basil, Dried parsley, Paprika, <i>Wasabi</i> powder, mixed with mustard, <i>Wasabi</i> past, Baker's yeast (compressed), Baker's yeast (dried), Baking powder

## 3. Classification of Meals

Meal was classified as below;

## A. Meals eaten Outside Home

Meals that are prepared as well as eaten outside the home, such as the ones eaten at restaurants and the delivered meals eaten outside home.

Buckwheat noodles and wheat flour noodles	Buckwhat noodles, Udon, Chinese noodles, chow meins, etc.				
Sushi	Hand-rolled sushi, chirashi-zushi, sushi rolled in laver, fried-bean curd stuffed with				
	rice etc. Rice bowl with pork cutlet, Rice bowl with deep-fried prawns, Chinese rice bowl,				
Rice bowl dishes	Rice bowl with chicken-and-egg, Rice bowl with egg, Rice bowl with eel etc.				
Curried rice	Curried rice, Rice omelet, fried rice, etc.				
Pasta	Gratin, lasagna, spaghetti, macaroni,etc.				
Bread	Toast, sandwich, burger, etc.				
Other Japanese dishes	Japanese style set menu, Japanese style box-lunch, rice ball, etc.				
Other European dishes	European style set menu, European style box-lunch, etc.				
Other Chinese dishes	Chinese style set menu, Chinese style box-lunch, etc.				

## **B.** Cooked Meals

Cooked meals that are bought/delivered and eaten at home (Categories of meals are same as

"A. Meals eaten Outside Home").

## C. Meals Provided at School and Worksite, etc.

- Meals provided at day-care center or kindergarten (For teachers, meals provided at worksite)
- Meals provided at school (For teachers, meals provided at worksite)
- Meals provided at worksite

## **D.** Meals at Home

• Meals or box-lunch that are prepared and eaten at home

## E. Others

- Only confectioneries, fruits, dairy products and beverages
- Only nutritional supplements (tablet, drink)
- No meal at all (skipping)

# 4. Classification of Blood Pressure Levels

	Systolic blood press	ure	Diastolic blood pressure	
Optimum blood pressure	< 120	and	< 80	
Normal blood pressure	< 130	and	< 85	
High normal blood pressure	130 ~ 139	or	85 ~ 89	
Mild hypertension	140 ~ 159	or	90 ~ 99	
Moderate hypertension	160 ~ 179	or	100 ~ 109	
Serious hypertension	180	or	110	

The numerical values in the table are averages arrived at by duplicated measurements.

(Source: "Classification of Blood Pressure Levels, 2000" by the Japan Hypertension Society)

## 5. Assessment of Obesity

Obesity was assessed using the following formula for BMI (Body Mass Index).

 $BMI = Body Weight (kg) / Height (m)^{2}$ 

"BMI=22" is considered as the standard value for both males and females aged 20 years and over. Obesity is classified as below:

Classification	Thin (Underweight)	Normal	Obesity
BMI	Less than 18.5	18.5  and  < 25.0	25.0 or more

(Source: "Standard Criteria for Assessment of Obesity, 2000" by the Japan Obesity Society)

Assessment of Obesity by Hibi method

The obesity of individuals aged 6 - 14 years were assessed by comparing observed weights and the standard weights calculated by Hibi method.

Evaluation	Underweight	Slightly Underweight	Normal	Slightly Overweight	Obesity
Obesity Level	Less than -20%	-20% and < -10%	-10% and < 10%	10% and < 20%	20% or more

Degree of Obesity (%) = (Observed Weight (kg) - Standard Weight (kg)) ÷ Standard Weight (kg) × 100 Standard Weight (kg) = Coefficient  $1 \times \text{Height} (\text{cm})^3 + \text{Coefficient } 2 \times \text{Height} (\text{cm})^2 + \text{Coefficient } 3 \times \text{Height} (\text{cm}) + \text{Coefficient } 4$ 

Sex	Coefficient 1	Coefficient 2	Coefficient 3	Coefficient 4
Male	0.0000641424	-0.0182083	2.01339	-67.9488
Female	0.0000312278	-0.00517476	0.34215	1.66406

(Reference)

(1) Hibi, I.: Obesity, Textbook of Modern Pediatrics, Vol. 4, Nutritional Disorders and Metabolic Disorders, pp. 330-343 (1968), Nakayama Shoten, Tokyo;

(2) Yoshiike, N.: Secular Changes in Incidence of Obesity in Schoolchildren and Students with Time--Health Japan 21 Target Values and Various Indices, The Japanese Journal of Nutrition and Dietetics: 58(4); 177-180 (2000)

#### Table 2 Japanese Recommended Dietary Allowancese

(From data published in June 1999 by the Public Health Council)

nergy Require	quirements by Physical Activity Level (kcal/day)										
			Р	hysical Ac	tivity Level						
Age	I. Very	y Light	II. I	light	III. Me	oderate	IV. Heavy				
	Male	Female	Male	Female	Male	Female	Male	Female			
0 – (mo.)				110-1	20/kg						
6 – (mo.)				100	/kg						
1 - 2	-	-	1,050	1,050	1,200	1,200	-	-			
3 – 5	-	-	1,350	1,300	1,550	1,500	-	-			
6 -8	-	-	1,650	1,500	1,900	1,700	-	-			
9 - 11	-	-	1,950	1,750	2,250	2,050	-	-			
12 - 14	-	-	2,200	2,000	2,550	2,300	-	-			
15 - 17	2,100	1,700	2,400	1,950	2,750	2,200	3,050	2,500			
18 - 29	2,000	1,550	2,300	1,800	2,650	2,050	2,950	2,300			
30 - 49	1,950	1,500	2,250	1,750	2,550	2,000	2,850	2,200			
50 - 69	1,750	1,450	2,000	1,650	2,300	1,900	2,550	2,100			
70 or older	1,600	1,300	1,850	1,500	2,050	1,700	-	-			
Pregnancy											
Lactation				+6	00						

# Lipid Requirements

Age	Lipid Energy Requirement (%)
0 – (mo.)	45
6 – (mo.)	30-40
1 - 17	25-30
18 - 69	20-25
70 or older	20-25
Pregnancy or Lactation	20-30

# Protein Requirements

(g/day)

Age	Male	Female
0 – (mo.)	2.6	/kg
6 – (mo.)	2.7	/kg
1 - 2	3	5
3 – 5	4	5
6 – 8	60	55
9 – 11	75	65
12 - 14	85	70
15 - 17	80	65
18 – 29	70	55
30 - 49	70	55
50 - 69	65	55
70 or older	65	55
Pregnancy		+10
Lactation		+20

# Vitamin Requirements

Age	Vitan (µg R		Vitamin D (µg)		min E -TE*2)		min K 1g)	Vitamin B <sub>1</sub> (mg)	
	Male	Female	(78)	Male	Female	Male	Female	Male	Female
0 – (mo.)	300 (1,	000IU)	10 (400IU)		3		5	C	0.2
6 – (mo.)	300 (1,	000IU)	10 (400IU)		3	-	10	0	0.3
1 – 2	300 (1,	000IU)	10 (400IU)		5	-	15	0	0.5
3 – 5	300 (1,	000IU)	10 (400IU)		6	2	20	0.6	
6 - 8	350 (1,200IU)	350 (1,200IU)	2.5 (100IU)	6	6	25	25	0.8	0.7
9 - 11	450 (1,500IU)	450 (1,500IU)	2.5 (100IU)	8	8	35	35	1.0	0.8
12 - 14	600 (2,000IU)	540 (1,800IU)	2.5 (100IU)	10	8	50	50	1.1	1.0
15 – 17	600 (2,000IU)	540 (1,800IU)	2.5 (100IU)	10	8	60	55	1.2	1.0
18 – 29	600 (2,000IU)	540 (1,800IU)	2.5 (100IU)	10	8	65	55	1.1	0.8
30 - 49	600 (2,000IU)	540 (1,800IU)	2.5 (100IU)	10	8	65	55	1.1	0.8
50 - 69	600 (2,000IU)	540 (1,800IU)	2.5 (100IU)	10	8	65	55	1.1	0.8
70 or older	600 (2,000IU)	540 (1,800IU)	2.5 (100IU)	10	8	55	50	1.1	0.8
Pregnancy		+60 (200IU)	+5 (200IU)		+2		+0		+0.1
Lactation		+300 (1,000IU)	+5 (200IU)		+3		+0		+0.3

\*1 RE: Retinol equivarent

\*2  $\alpha$ -TE:  $\alpha$ -tocopherol equivalent

Age	Vitamin B <sub>2</sub> (mg)		Niacin (mgNE*3)		Vitamin B <sub>6</sub> (mg)		Vitamin B <sub>12</sub> (µg)	Folic Acid (µg)	Pantothenic Acid	Vitamin C
	Male	Female	Male	Female	Male	Female			(mg)	
0 – (mo.)	0	).2		2* <sup>4</sup>	(	).1	0.2	40	1.8	40
6 – (mo.)	0	).3		4	(	).1	0.2	50	2.0	40
1 – 2	0	).6		8	(	).5	0.8	70	2.4	45
3 - 5	0	).8		9	(	).6	0.9	80	3	50
6 - 8	1.0	0.8	12	10	0.8	0.7	1.3	110	3	60
9 - 11	1.1	1.0	14	13	1.1	0.8	1.6	140	4	70
12 – 14	1.2	1.1	16	14	1.4	1.1	2.1	180	4	80
15 – 17	1.3	1.1	17	14	1.6	1.2	2.3	200	4	90
18 – 29	1.2	1.0	17	13	1.6	1.2	2.4	200	5	100
30 - 49	1.2	1.0	16	13	1.6	1.2	2.4	200	5	100
50 - 69	1.2	1.0	16	13	1.6	1.2	2.4	200	5	100
70 or older	1.2	1.0	16	13	1.6	1.2	2.4	200	5	100
Pregnancy		+0.2		+2		+0.5	+0.2	+200	+1	+10
Lactation		+0.3		+4		+0.6	+0.2	+80	+2	+40

\*3 NE: Niacin equivalent \*4 Unit: mg

# **Mineral Requirements**

Age	Potassiu	ım (mg)		cium ng)	Magn		Phosphorus (mg)
Age	Female	Male	Female	Male	(mg) Female Male		(ing)
0 – (mo.)	50			)0	2		130
06 – (mo.)	70			00	3		280
1-2	90	00	50	00	6	0	600
3 – 5	1,1	00	50	00	8	0	700
6 - 8	1,350	1,200	600	600	120	120	900
9 - 11	1,550	1,400	700	700	170	170	1,200
12 - 14	1,750	1,650	900	700	240	220	1,200
15 - 17	2,000	2,000	800	700	290	250	1,200
18 – 29	2,000	2,000	700	600	310	250	700
30 - 49	2,000	2,000	600	600	320	260	700
50 - 69	2,000	2,000	600	600	300	260	700
70 or older	2,000	2,000	600	600	280	240	700
Pregnancy	hancy +0 +300		+300		+35	+0	
Lactation		+500		+500		+0	+0

		on		nc	Copper			
Age	(m	lg)	(n	ng)	(mg)			
	Male	Female	Female	Male	Female	Male		
0 – (mo.)	6	5	1.2	2* <sup>4</sup>	0.	.3		
6 – (mo.)	6	5	4	4	0.	.7		
1 - 2	7	7	4	5	0.	.8		
3 – 5	8	3		5	1.0			
6 – 8	9	9	6	6	1.3	1.2		
9 - 11	10	$10^{*1}$	7	7	1.4	1.4		
12 - 14	12	12	8	8	1.8	1.6		
15 - 17	12	12	10	9	1.8	1.6		
18 - 29	10	12	11	9	1.8	1.6		
30 - 49	10	$12^{*^2}$ $12^{*^2}$	12	10	1.8	1.6		
50 - 69	10	$12^{*2}$	11	10	1.8	1.6		
70 or older	10	10	10	9	1.6	1.4		
Pregnancy		+8		+3		+0.4		
Lactation		$+8*^{3}$		+3		+0.6		

\*1 12mg/day for females aged 11 years

\*2 10mg/day for postmenopausal females
\*3 for 6 months after delivery

\*4 3 mg/day for infants fed artificial milk

1. Salt intake should be less than 150 mg/kg/day, in terms of prevention of hypertension. For the individuals aged 15 years and over,

it should be less than 10 g/day.

2. Potassium intake should be 3,500 mg/day, in terms of prevention of hypertension, for individuals aged 15 years and over.

No.	Classification Category	Examples
ļ		me (wages, salaries, operating profits, etc.), <u>including side jobs and part-time works</u>
01		Scientific researchers, Engineers and Technicians, Physicians, Dentists, Veterinarians, Pharmacists, Public health nurses, Midwives, Nurses, Clinical and sanitary experts, Dental hygienists, Dietitians, Masseurs, Acupuncturists, Moxibustionists, Judo therapists, Social welfare staff (e.g. nursery staff), Legal workers (e.g. Judges, Prosecutors, Lawyers), Certified Public Accountants, Certified tax accountants, Teachers, Religious workers, Writers, Reporters, Editors, Artists, Photographers, Designers, Illustrators, Cartoonists, Musicians, Stage artists, Other professional and technical workers (e.g. Private teachers, Professional athletes)
02	Management	Government officials (ex. Prefectural assembly members, Governors, Mayors), Administrators of companies and corporations, Directors of companies and corporations (ex. Factory managers, General managers, Stationmasters, Section chiefs), Other managers and administrators
03	Clerks	General clerks (ex. Clerks in general affairs departments, Receptionists/Information clerks, Secretaries), Accounting clerks, Outside clerical workers (e.g. Bill collectors), Clerical workers in transportation and communication, Other clerical workers (ex. Stenographers, Typists, Key punchers, Operators of electronic machinery)
04	Sales	Sales workers of commodities (e.g. Retail dealers, Restaurant managers, Shop salespersons and sales clerks, Traveling salespersons, Commodity brokers), Sales related workers (e.g. Real estate agents, Insurance agents, Pawn brokers)
05	Services	Life-supporting service workers (e.g. Housekeepers, Domestic helpers, Home helpers), Environmental health service workers (e.g. Barbers, Beauticians, Launderers and dry cleaners), Food service workers, Serving workers, Superintendents of residences and buildings, Other service workers (ex. Travel attendants, Temporary keepers)
06	Security services	Self-Defense officials, Police officers, Prison guards, Fire fighters, Security guards
07	Agriculture	Farmers, Sericulturists, Poultry breeders, Apiculturist, Livestock farmerss, Gardeners, Landscape gardeners
08	Forestry	Forest managers, Timber fellers and loggers, Timber collectors and log transporters, Charcoal makers and firewood choppers
09	Fisheries	Fishermen, Seaweed and shell gatherers, Captains, chief engineers and engineers of fishing boat, Aquiculture workers
10		Car drivers, Train drivers, Ship pilots, Aircraft pilots, Workers operating other transportation (e.g. Conductors, Railway transportation-related workers, Deckhands, Ship engineers, Train inspectors), Communication workers (e.g. Radiotelegraphists, Wiretelegraphists, Telephone operators, Mail and telegram deliverers)
11	Manufacture	Manufacturers (e.g. Metal material, Chemical products, Ceramic products, Stone and clay products, Foods, Beverages, Tobaccos, Clothing, Textile, Wood, bamboo, grass and vine products, Pulp, paper and paper products, Rubber and plastic products, Leather and leather products), Assembling and repairing workers (ex. General machine, Electric machine, Transportation equipment, Measuring and optical instrument), Metal processing workers, Welders and framecutter, Spinners, Printing and book-binding products, Boiler operators, Construction machinery operators, Electric workers, Mining workers, Construction assistants ( <i>Tobishoku</i> ), Reinforcing workers, (ex. Sweepers, garbage collectors and others)
		ople not engaged in the above jobs (01 - 11)
12	· · ·	People engaged in housekeeping daily, such as housewives of ordinary households
13		(People who are unemployed due to their old age and illness etc.)
14	Day-care Center Infants	Infants going to day-care center daily
15	-	Children going to kindergarten daily
16 17	Elementary School Students, 1st – 2nd Grade	Children not going to day-caree center or kindergarten Pupils at elementary school (1st - 2nd grade)
18	Elementary School Students, 3rd – 4th Grade	Pupils at elementary school (3rd – 4th grade)
19	Elementary School Students, 5th – 6th Grade	Pupils at elementary school (5th – 6th grade)
19 20	Elementary School Students, 5th – 6th Grade Junior High School Students	Pupils at elementary school (5th – 6th grade) Pupils at junior high school (1st – 3rd grade)

# Table 3Classification of Occupation

#### Approval No. 25182 Ministry of Internal Affairs and Communications Valid until February 28, 2005

The National Health and Nutrition Survey in Japan, 2004

# **Physical Examination Sheet**

	Prefecture	Public Health Center
District Number		
City or County Number		
Household Number		
ID Number of the Household Member		
Sex	1. Male 2. Female	
Age		
[Physical Examination]		[Interview] (20 years old and over)
1. Height		6. Are you using the following agents?
2. weight		Yes No
3. Abdominal circumfere (Level of the navel)	ence (15 years old and over)	a. Drug for lowering blood pressure
	<u>cm</u>	b. Antiarrhythmic drug
4		c. Insulin injection or drug for lowering blood glucose
4. Blood Pressure (15 ye First Measurement	ars old and over)	d. Drug for lowering cholesterol levels
	nal) <u>mmHg</u>	d. Drug for lowering endesteror levels
Diastolic (Minit Second Measurement	mal) <u>mmHg</u>	7. Exercise habits
Systolic (Maxir	nal) <u>mmHg</u>	I am unable to exercise for health reasons. I am unable to exercise for the reasons other than
Diastolic (Mini	mal) <u>mmHg</u>	I have a regular exercise habit
5. Blood Test (20 years o	old and over)	If you chose ,
Yes No.		
(Items to be checked a	re on the back.)	a. How many days do you exercise each week?days
		b. Average time of exercise on each day
		hours and minutes
		c. Exercise intensity
		High (your respiration rate is very high)
		Moderate (your respiration rate is somewhat high)
		Low (your respiration rate is almost normal

\*) Daily physical activity (number of steps in a day) (subjects aged 15 years and over) (The answers provided on the questionnaire Dietary on nutritional intake should be checked.)

# The Ministry of Health, Labour and Welfare

Approval No. 25813         Ministry of Internal Affairs and Communications         Valid until February 28, 2005
The National Health and Nutrition Survey in Japan, 2004
Questionnaire for Dietary Intake Survey
District Number —
City or County Number
Household Number
PrefecturePublic Health Center
Name of Survey Staff:
Name of Checker:
The Ministry of Health, Labour and Welfare

I. Questions about household members II. Meals

Please follow the instructions of "How to Fill Out the Ouestionnaire for Dietary Intake Survey"

To be filled in by survey staff

I. Question	is about in	ousenoid members II	. Wears	Please follow the instr	uctions of "F	low to Fill Out the Questi	onnaire for Dietary in	take Survey				
I. Questions about household members											Type of N	Meals
1. ID number	2. Name	3. Year and Month of Birth	4. Sex	5. Pregnancy/Lactation *1 See "Classification of Post-delivery Period"	6. Type of Occupation	Time spent walking	7. Daily Physical Time spent brisk walking	Activity Level Muscle Activity *2 Assess	↓ mont	Break- fast	Lunch	Dinner
01		Era 1. Meiji 2. Taisho 3. Showa 4. Heisei Year Month	1. Male. 2. Female	<ol> <li>Pregnancy weeks</li> <li>Less than 6 months after delivery, and lactating</li> <li>Less than 6 months after delivery, and not lactating</li> <li>More than 6 months after delivery, and lactating</li> </ol>		1. Less than 2 hours 2. 2-4 hours 3. 4-7 hours 4. More than 7 hours	1. Less than 1 hour 2. 1-2 hours 3. More than 2 hours	<ol> <li>I exercised or worked hard for 1 hour or longer, using the muscles.</li> <li>Others (1 did the above activity for less than 1 hour or none)</li> </ol>	ment			
02		Era 1. Meiji 2. Taisho 3. Showa 4. Heisei Year, Month	1. Male. 2. Female	<ol> <li>Pregnancy weeks</li> <li>Less than 6 months after delivery, and lactating</li> <li>Less than 6 months after delivery, and not lactating</li> <li>More than 6 months after delivery, and lactating</li> </ol>		<ol> <li>Less than 2 hours</li> <li>2. 2-4 hours</li> <li>3. 4-7 hours</li> <li>4. More than 7 hours</li> </ol>	1. Less than 1 hour 2. 1-2 hours 3. More than 2 hours	<ol> <li>I exercised or worked hard for 1 hour or longer, using the muscles.</li> <li>Others (I did the above activity for less than 1 hour or none)</li> </ol>				
03		Era 1. Meiji 2. Taisho 3. Showa 4. Heisei Year, Month	1. Male. 2. Female	<ol> <li>Pregnancy weeks</li> <li>Less than 6 months after delivery, and lactating</li> <li>Less than 6 months after delivery, and not lactating</li> <li>More than 6 months after delivery, and lactating</li> </ol>		<ol> <li>Less than 2 hours</li> <li>2-4 hours</li> <li>4-7 hours</li> <li>More than 7 hours</li> </ol>	<ol> <li>Less than 1 hour</li> <li>1-2 hours</li> <li>More than 2 hours</li> </ol>	<ol> <li>I exercised or worked hard for 1 hour or longer, using the muscles.</li> <li>Others (I did the above activity for less than 1 hour or none)</li> </ol>				
04		Era 1. Meiji 2. Taisho 3. Showa 4. Heisei Year Month	1. Male. 2. Female	<ol> <li>Pregnancy weeks</li> <li>Less than 6 months after delivery, and lactating</li> <li>Less than 6 months after delivery, and not lactating</li> <li>More than 6 months after delivery, and lactating</li> </ol>		<ol> <li>Less than 2 hours</li> <li>2-4 hours</li> <li>4-7 hours</li> <li>More than 7 hours</li> </ol>	<ol> <li>Less than 1 hour</li> <li>1-2 hours</li> <li>More than 2 hours</li> </ol>	<ol> <li>I exercised or worked hard for 1 hour or longer, using the muscles.</li> <li>Others (I did the above activity for less than 1 hour or none</li> </ol>				
05		Era 1. Meiji 2. Taisho 3. Showa 4. Heisei Year Month	1. Male. 2. Female	<ol> <li>Pregnancy weeks</li> <li>Less than 6 months after delivery, and lactating</li> <li>Less than 6 months after delivery, and not lactating</li> <li>More than 6 months after delivery, and lactating</li> </ol>		<ol> <li>Less than 2 hours</li> <li>2-4 hours</li> <li>4-7 hours</li> <li>More than 7 hours</li> </ol>	1. Less than 1 hour 2. 1-2 hours 3. More than 2 hours	<ol> <li>I exercised or worked hard for 1 hour or longer, using the muscles.</li> <li>Others (I did the above activity for less than 1 hour or none)</li> </ol>				

	*1 Classification of Post-delivery Period									
÷	Delivery									
	<b>↓</b> month	2months	3 months	4 months	5 months	6 m <del>ont</del>	← 7 months →			
	L	ess than 6 m	onths (withi	n 180 days)	6 months or more (181 days or more) after delivery					

Note: Do not fill in this section. This will be filled in by the survey staff.

# **Dietary Intake Recording Sheet**

Date: \_\_\_\_\_Breakfast

Please record all dishes, foods and drinks How was the dish shared among the household members? consumed by the household members. Leftover Name Amounts Amounts Dish Used (in Food Name Thrown Name grams or Away portion size) 2 3 5 7 8 9 1 4 6

	For the survey staff only (Please do not fill										inSubjects are not to fill in here.)									
Dish Reference Number	Food Number				Proportions of dishes/foods consumed by the <u>household member</u>															
nber						e		ome", mber			1	2	3	4	5	6	7	8	Lett over	~ <del>~</del> ff
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# Physical Examination

# Daily Physical Activity (Number of Steps Taken)

ID number of the household member	Name	Number of Steps

Please ensure that they are consistent with the ID number of the household member and name on Page 1.

fonly

\* After checking, put  $\checkmark$  in the above box.

# Please answer the following questions on your lifestyle.

## Question 1 Do you skip meals?

### Please circle the number of the most appropriate answer. \* It is considered as "skipped meal" if you only take teas (Japanese tea, coffee, black tea, etc.) with no sugar and milk, water and vitamin/mineral supplements (tablet, capsule, granule).

- 1. I skip more than one meal every day (more than seven meals per week).
- 2. I skip 4-6 meals per week.
- 3. I skip 2-3 meals per week.
- 4. I skip less than two meals per week or never.

#### Question 2 Do you take snack between meals (including midnight snack)?

#### Please circle the number of the most appropriate answer. \* It is NOT considered as "snack", if you only take teas (Japanese tea, coffee, black tea, etc.) with no sugar and milk, water and vitamin/mineral supplements (tablet, capsule, granule).

- 1. I take snacks more than two times every day (more than 14 times per week).
- 2. I take snacks at least once, but less than two times every day (7-13 times per week).
- 3. I take snacks 2-6 times per week.
- 4. I take snacks less than twice per week or never.

#### Question 3 Do you eat meals outside home?

#### Please circle the number of the most appropriate answer.

# <u>\* Eating meals outside home means eating meals at restaurants or eating delivered/cooked meals outside home.</u>

- 1. I eat meals outside home more than two times ever day (more than 14 times per week).
- 2. I eat meals outside home at least once, but less than two times every day (7-13 times per week).
- 3. I eat meals outside home 2-6 times per week.
- 4. I eat meals outside home less than two times a week or ne ver.

### Question 4 Which do you think you are fat or thin?

### Please circle the number of the most appropriate answer.

- 1. Fat
- 2. Slightly fat
- 3. Normal
- 4. Slightly thin
- 5. Thin

## Question 5 Are you trying to reach or maintain your optimal weight?

1. Yes 2. No

## Question 6 Please choose "Yes" or "No" for each of the following questions:

1.	Do you eat appropriate amounts?	Yes	No	
2.	Do you have any family or friend to eat with?	Yes	No	
3.	Do you take enough time to eat?	Yes	No	
4.	Do you know the appropriate dietary components and amounts?	)	Yes	No

# Question 7Do you usually refer to the nutritional labeling when you eat meals outside home orpurchase foods?Please circle the number of the most appropriate answer.

- 1. I always do.
- 2. I sometimes do.
- 3. I seldom do.
- 4. I almost never do.

# Question 8What do you think about your current diets?Please circle the number of the most appropriate answer.

- 1. Very good.
- 2. Good.
- 3. Slightly bad.
- 4. Bad.

## Question 9 What do you want to do with your diets hereafter? Please circle the number of the most appropriate answer.

- 1. I want to make it better than now.
- 2. I would maintain the current diets.
- 3. I have no idea.

Question 10 Have you ever seen foods or dishes with nutritional labeling at restaurants, food floor, food service facilities and canteen of your worksite (school)?

Please circle the number of the most appropriate answer.

- 1. Yes.
- 2. No.
- 3. Not sure.

Question 10-2 (If "1. Yes", in Question 10) Do you choose menu with referring to the nutritional labels? Please circle the number of the most appropriate answer.

- 1. I always do.
- 2. I sometimes do.
- 3. I almost never do.

Question 11 Are there any voluntary groups for learning/implementing activities related to health and nutrition in your community, worksite and school etc.? Please circle the number of the most appropriate answer.

- 1. Yes
- 2. No
- 3. Not sure

# Question 11-2 (If "1. Yes" in Question 11) Have you ever participated in any voluntary groups? Please circle the number of the most appropriate answer.

- 1. I am currently participating.
- 2. I have ever participated in the past one year.
- 3. I have never participated in the past one year.

# Question 12 Have you been able to take enough rest by sleeping during the past one month? Please circle the number of the most appropriate answer.

- 1. I have been able to take enough rest.
- 2. I have been able to take nearly enough rest.
- 3. I have not been able to take enough rest.
- 4. I have not been able to take any rest at all.

# Question 13How long did you sleep on average per day during the past one month?Please circle the number of the most appropriate answer.

- 1. Less than 5 hours.
- 2. Less than 6 hours.
- 3. Less than 7 hours.
- 4. Less than 8 hours.
- 5. Less than 9 hours.
- 6. More than 9 hours

# Question 14 Are you aware of "Health Japan 21 (National Health Promotion Program in the 21st Century)"?

## Please circle the number of the most appropriate answer.

- 1. I know what it meanss.
- 2. I have heard of it, but do not know what it means.
- 3. I have never heard of it.
- 4. I heard it for the first time by this survey.

# Question 15Do you know what "lifestyle-related diseases" means?Please circle the number of the most appropriate answer.

- 1. I know what it means.
- 2. I have heard of it, but do not know what it means.
- 3. I have not heard of it or I do not know what it means.

# Please answer the following questions on dental health.

# Question 16Do you use any of the following devices (devices for cleaning interdental areas, etc.)?Please circle the numbers of all the appropriate answers.

- 1. Dental floss/floss pick
- 2. Interdental brush
- 3. Interdental stimulator
- 4. Mouth irrigating device
- 5. None of them

Question 17 Did you have your dental calculus removed or your tooth surface cleaned during the past one year?

- 1. Yes
- 2. No

## Question 18 Have you received "personal instruction on tooth brushing" during the past one year?

- 1. Yes
- 2. No

Question 18-2 (If "1. Yes" in Question 18) Where did you receive it? Please circle the numbers of all the appropriate answers.

- 1. Dental clinic (hospital)
- 2. Municipality (city, town, or village), or public health center
- 3. Worksite
- 4. School
- 5. Other

### Question 19 Did you receive a dental health examination during the past year?

- 1. Yes
- 2. No

Question 19-2 (If "1. Yes" in Question 19) Where did you receive it? Please circle the numbers of all the appropriate answers.

- 1. Dental clinic (hospital)
- 2. Municipality (city, town, or village), or public health center
- 3. Worksite
- 4. School
- 5. Others

## Question 20 Please choose "Yes" or "No" to each of the following questions about your gums.

1.	Are your gums swollen?	Yes	No
2.	Is there any bleeding from gums when you brush your teeth?	Yes	No
3.	Have your gum lines receded and exposed your tooth roots?	Yes	No
4.	Does any pus ooze from your gums when you press them?	Yes	No
5.	Are your teeth wobbly?	Yes	No

6. Are you receiving treatment for diagnosed periodontal disease (alveolar pyorrhea)? Yes No

### Question 21 Have any of your missing teeth been replaced?

#### Please circle the number of the most appropriate answer.

- 1. All of them have been replaced.
- 2. Some of them have been replaced.
- 3. None of them has been replaced.

# Question 21-2 (If 1. or 2. in Question 21) With what the missing teech are replaced? Please circle the numbers of all the appropriate answers.

- 1. Denture(s)
- 2. Dental bridge(s)
- 3. Dental implant(s)

# Question 22How well can you chew foods?Please circle the number of the most appropriateanswer.

- 1. I can chew any type of food.
- 2. I cannot chew some foods.
- 3. I cannot chew many foods.
- 4. I cannot chew any foods.

#### Question 23 How many teeth do you have?

\* Wisdom teeth, dentures, dental bridges, and dental implants are not included. Post crowns are included.

I have teeth.

If you are over 20 years old, please answer the following questions as well. If you are 15 to 19 years old, you have completed the questionnaire.

Question 24 How often do you drink alcoholic beverages (*sake*, *shochu*, beer, wine, etc.)? Please circle the number of the most appropriate answer.

- 1. Every day
- 2. 5-6 days a week
- 3. 3-4 days a week
- 4. 1-2 days a week
- 5. 1-3 days a month
- 6. I have quit drinking (I have not drunk for more than one year).
- 7. I hardly drink or never drink at all.

**Question 24-2** (If 1-4 in Question 24) How much do you drink alcoholic beverages on the day when you drink? Please circle the number of the most appropriate answer (expressed as the amounts of *sake*).

- 1. Less than 1 go (180 ml) of sake
- 2. Less than 2 go (360 ml) of sake
- 3. Less than 3 go (540 ml) of *sake*
- 4. Less than 4 go (720 ml) of sake
- 5. Less than 5 go (900 ml) of sake
- 6. More than 5 go (900 ml) of *sake*

1 go (180 ml) of sake is almost equivalent to the following beverages:
1 middle-sized bottle (500 ml) of beer, 80 ml of shochu (35% alcohol),
1 double shot (60 ml) of whiskey, 2 glasses (240 ml) of wine

### **Question 25**

### Have you ever smoked cigarettes?

### Please circle the number of the most appropriate answer.

- 1. I have smoked more than 100 cigarettes in total, or I have smoked cigarettes over 6 months.
- 2. I have smoked less than 100 cigarettes in total, for less than 6 months.
- 3. I have never smoked.

If you 3. in Question 25, you have completed the questionnaire.

### Question 26 Have you ever been, a habitual smoker?

1 Yes 2 No

## Question 26-2 Since when have you been a habitual smoker?

Since I was about \_\_\_\_years old

# Question 27Are you a current smoker (during the past one month)?Please circle the number of the most appropriate answer.

- 1. I smoke cigarettes every day.
- 2. I sometimes smoke cigarettes.
- 3. I have not smoked cigarettes (during the past one month)

If 1. in Question 25, please answer Question 28.

If 2. in Question 25, **you have completed the questionnaire** 

Question 28 How many cigarettes do you currenyly (or did you usually smoke) per day?

(If you "sometimes smoke cigarettes", please write down the number of cigarettes on the days when you

smoke.)

\_\_\_\_\_cigarettes

Thank you for your cooperation.

Approval No. 25815 Ministry of Internal Affairs and Communications
Valid until February 28, 2005         The National Health and Nutrition Survey in Japan, 2004         Lifestyle Questionnaire         (For the Subjects under 14 years old)         This questionnaire asks about the household members aged 1 to 14 years and should be filled out by their parents (or other guardians).
Please use one questionnaire for each child.
District Number
City or County Number
Household Number
ID Number of the Household (Fill in ID number of the household member for the child.)
Sex 1. Male 2. Female
Age
PrefecturePublic Health Center
The Ministry of Health, Labour and Welfare
Life managery of receivity Dubout and Wenute
35

# Please answer the following questions about the child's teeth

# Question 1 Is the child practicing (or has s/he ever practiced) any of the following measures to prevent tooth decay?

### Please circle the numbers of all the appropriate answers.

- 1. Using a fluoridated toothpaste.
- 2. Washing (rinsing) the mouth with a fluoride solution.
- 3. Coating the teeth with fluoride.
- 4. Applying a sealant to the teeth (filling dental grooves with resin, etc. without reducing them).
- 5. Not sure.
- 6. S/he practices nothing.

Question 2How many times does s/he have sweetened foods/beverages as snacks (food/drink takenother than the normal three meals) in a day?Please circle the number of the most appropriate answer.

- 1. Never
- 2. Once
- 3. Twice
- 4. Three times
- 5. More than four times

### Question 3 Did s/he receive "personal instruction on tooth brushing" during the past year?

1 Yes 2 No

# Question 3-2 (If "1. Yes" in Question 3) Where did he/she receive it? Please circle the numbers of all the appropriate answers.

- 1. Dental clinic (hospital)
- 2. Municipality (city, town, or village), or public health center
- 3. School, kindergarten or child care center
- 4. Other

# Question 4 Has s/he had his/her tooth surface cleaned or his/her dental calculus removed during the past one year?

- 1. Yes
- 2. No

Thank you for your cooperation.

**Outline of the Results** 

Since the values given in this report are rounded off, the sum for the given values may differ slightly from the actual total sum.

# 1. Body Shape and Metabolic Syndrome (Visceral Fat Syndrome)

# **Body Shape**

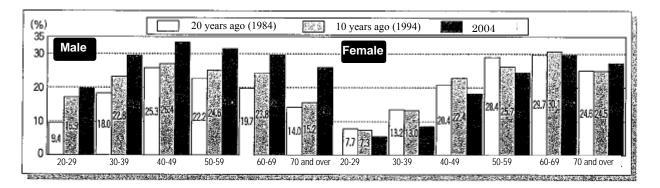
The proportion of males with obesity has increased in all age groups since 1984 or 1994, and now about 30% of males aged 30-69 years are obese.

On the other hand, the proportion of females aged 20-49 years with underweight (thin) increased since 1984 or 1994, and now about 20% of females aged 20-29 years are underweight (thin).

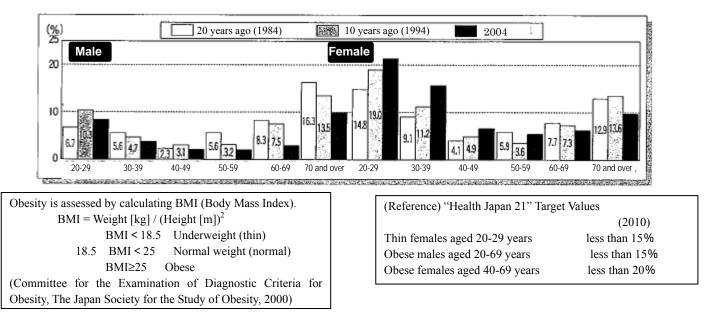
In the 2004 results, about 30% of males aged 30-69 years and females aged 60-69 years were obese (BMI  $\ge$  25). Although the proportion of subjects with BMI  $\ge$  25 remains almost unchanged among males aged 30-69 years, that increased with age until the 60's for females. On the other hand, the proportion of females with BMI < 18.5 was about 20% among those aged 20-29 years.

In addition, compared with 20 years ago (1984) and 10 years ago (1994), the proportion of subjects with BMI  $\geq$  25 increased among males in all age groups, whereas it decreased in females aged 20-59 years. On the other hand, the proportion of females with BMI < 18.5 increased among those aged 20-49 years.

# ♦ Figure 1 Proportion of Obese Individuals (BMI 25) (subjects aged 20 years and over)



# ◆ Figure 2 Proportion of Thin Individuals (BMI < 18.5) (subjects aged 20 years and older)

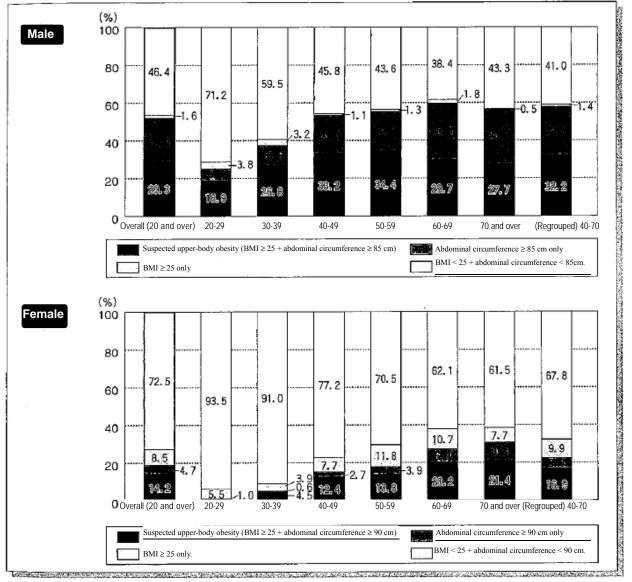


# Prevalence of Obesity in terms of BMI and Abdominal Circumference

About 30% of males aged 30 and over are suspected to have upper-body obesity.

The proportion of subjects aged 20 years and over who are suspected to have upper-body obesity, one of the diagnostic criteria for visceral fat obesity, was 29.3% for males and 14.2% for females.

In addition, about 30% of males aged 30 years and over and about 20% of females aged 60 years and over were suspected to have upper-body obesity.



♦ Figure 3 Obesity by BMI and Abdominal Circumference Measurement (subjects aged 20 years and over)

(Reference) Diagnostic criteria for visceral fat obesity:

Suspected upper-body obesity Males:  $BMI \ge 25 + waist circumference \ge 85 cm$ ,

Females: BMI  $\ge 25 + \text{waist circumference} \ge 90 \text{ cm}$ 

• If a subject with suspected upper-body obesity is found to have visceral fat area of over 100 cm<sup>2</sup> (for both males and females) by abdominal CT, s/he is diagnosed as visceral fat obesity (Committee for the Examination of Diagnostic Criteria for Obesity, The Japan Society for the Study of Obesity, 2000).

\* The "abdominal circumference" in the National Health and Nutrition Survey was measured at "the navel level in the standing position", and the measurement position is same as that for waist circumference.

# **Metabolic Syndrome(Visceral Fat Syndrome)**

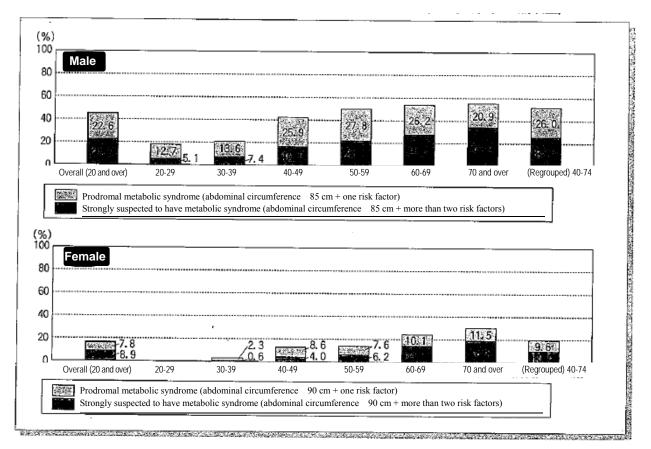
Proportions of the subjects who were strongly suspected to have metabolic syndrome (visceral fat syndrome) and those with prodromal metabolic syndrome are highest in the age group of 40 years and over for both males and females.

Among the subjects aged 40-74 years, one of two males and one of five females are either strongly suspected to have metabolic syndrome or prodromal metabolic syndrome.

Among the subjects aged 20 years and over, the proportion of those strongly suspected to have metabolic syndrome was 23.0% in males and 8.9% in females and that of those with prodromal metabolic syndrome was 22.6% and 7.8% respectively, showing higher proportions in males than in females.

The proportion of males strongly suspected to have metabolic syndrome was about 20% in the age group of 40-59 years, and about 30% in the age group of 60 years and over. The proportion of the subjects strongly suspected to have metabolic syndrome and those with prodromal metabolic syndrome was about 20% and over 30% in males aged 30-39 years and 40-49 years respectively, and the corresponding figures were about 3% and over 10% in females, showing the highest proportions in the age group of 40 years and over for both males and females.

Among the subjects aged 40-74 years, the proportion of those strongly suspected to have metabolic syndrome was 25.7% for males and 10.0% for females, and that of those with prodromal metabolic syndrome was 26.0% and 9.6% respectively. This means that among the subjects aged 40-74 years, one of two males and one of five females are strongly suspected to have metabolic syndrome or prodromal metabolic syndrome.



• Figure 4 Prevalence of Metabolic Syndrome (Visceral Fat Syndrome) (subjects aged 20 years and over)

\* The numbers of those who are strongly suspected to have metabolic syndrome and those with prodromal metabolic syndrome in the age group of 40-74 years are estimated as about 9.4 million and about 10.2 million, respectively, with a total estimated numbers of about 19.6 million. This calculation is based on the estimated numbers of those strongly suspected to have metabolic syndrome and those with prodromal metabolic syndrome, for the 40 to 74 population (a total of about 57 million), stratified by sex and age group, as of October 1, 2004.

# \*Assessment of Metabolic Syndrome (Visceral Fat Syndrome)\*

In the National Health and Nutrition Survey, it is impossible to diagnose metabolic syndrome (visceral fat syndrome) from the fasting blood sugar level and triglyceride level, due to difficulty of collecting fasting blood samples. In this report, therefore, the results of assessment were shown as below:

### Those strongly suspected to have metabolic syndrome:

Abdominal circumference ( $\geq$  85 cm for males,  $\geq$  90 cm for females) + more than two risk factors (blood lipid, blood pressure, and blood sugar).

# Prodromal metabolic syndrome

Abdominal circumference ( $\geq$  85 cm for males,  $\geq$  90 cm for females) + one risk factor (blood lipid, blood pressure, and blood sugar).

Abdominal circumference:	Abdominal circumference (waist circumference) Males: $\geq 85$ cm, Females: $\geq 90$ cm	

Risk factor	Blood Lipid	Blood Pressure	Blood Glucose		
	• <u>HDL cholesterol level &lt; 40mg/dl</u>	Systolic blood pressure	•		
Criteria		130 mmHg	emoglobin A <sub>1c</sub>		
Criteria		<ul> <li>Diastolic blood pressure</li> </ul>	<u>5.5%</u>		
		85 mmHg			
Medication	Taking drug for lowering cholesterol level	Taking drug for lowering blood pressure	<ul> <li>Taking drug for lowering blood glucose level</li> <li>Using insulin injection</li> </ul>		

(Reference: Research Project supported by a grand-in aid from the Ministry of Health, Labour and Welfare "Study on an Efficient Protocol for Community-based Health Examinations – Mid-term Report by the Research Team for evaluation of Health Indices", August 2005)

\* The criteria for blood glucose was specified as "hemoglobin  $A_{1c}5.5\%$ " because hemoglobin  $A_{1c} \ge 5.5\%$  is considered as "Guidance required" in the health examinations for elderly.

#### \_\_\_\_\_

### (Reference) Diagnostic Criteria for Metabolic Syndrome

(Japan Atherosclerosis Society, Japan Diabetes Society, Japanese Society of Hypertension, Japan Society for the Study of Obesity, Japanese Circulation Society, Japanese Society of Nephrology, Japanese Society on Thrombosis and Hemostasis, Japanese Society of Internal Medicine, April 2005)

(\* Format of the diagnostic criteria is partially changed for comparison with the above criteria.)

### Metabolic Syndrome

In addition to accumulation of visceral fat (intra-abdominal fat), more than two risk factors are met:

Accumulation of visceral fat	Waist circumference Male: $\geq$ 85 cm, Female: $\geq$ 90 cm
(intra-abdominal fat)	(Equivalent to 100 cm <sup>2</sup> of visceral fat area(for both males and females))

Risk factor	Blood Lipid	Blood Pressure	Blood Glucose		
Criteria	• <u>Trigly</u> <u>ceride (TG) level</u> <u>150mg/dl</u> (Hyperlipidemia) • <u>HDL</u> <u>cholesterol level &lt; 40 mg/dl</u> (hypo-HDL cholesterolemia)	<ul> <li>Systolic blood pressure 130 mmHg</li> <li>Diastolic blood pressure 85 mmHg</li> </ul>	<u>Fasting blood glucose level</u> <u>110 mg/dl</u>		
Taking Agent	<ul> <li>Drug therapy for hyperlipidemia</li> <li>Drug therapy for hypo-HDL cholesterolemia</li> </ul>	• Drug therapy for hypertension	• Drug therapy for diabetes		

\* It is preferable to measure visceral fat mass by CT scan, etc.

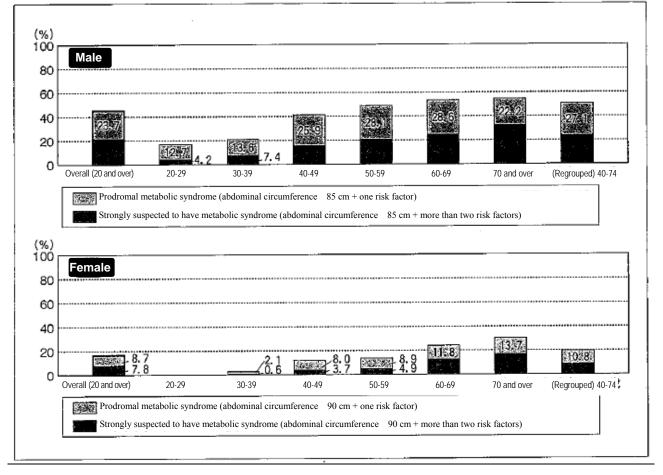
\* Waist circumference must be measured at the navel level in the standing position, during light exhalation. If there is obvious fat accumulation and the navel is deviated downward, waist circumference must be measured at the height of the midpoint between the inferior border of the rib and the

\* Although it is recommended to perform a glucose tolerance test for the subjects diagnosed as metabolic syndrome, the test is not essential for diagnosis.
\* The existence of diabetes or hypercholesterolemia does not preclude a diagnosis of metabolic syndrome.

# (Reference)

At present, assessment method for suspected metabolic syndrome (visceral fat syndrome) is not yet formally determined.

Since the subjects with a hemoglobin  $A_{1c}$  of 5.6% or more and less than 6.1% are considered to be the ones who possibly have diabetes, according to the Diabetes Mellitus Survey (Ministry of Health, Labour and Welfare: 1997, 2002), prevalence of metabolic with the criteria of "blood glucose  $\geq$  5.6%" is also provided in this report.



# $\label{eq:Figure 5} Figure 5 Prevalence of Metabolic Syndrome (Visceral Fat Syndrome) (subjects aged 20 years and over) \\ (Hemoglobin A_{1c} \ \geq 5.6\%)$

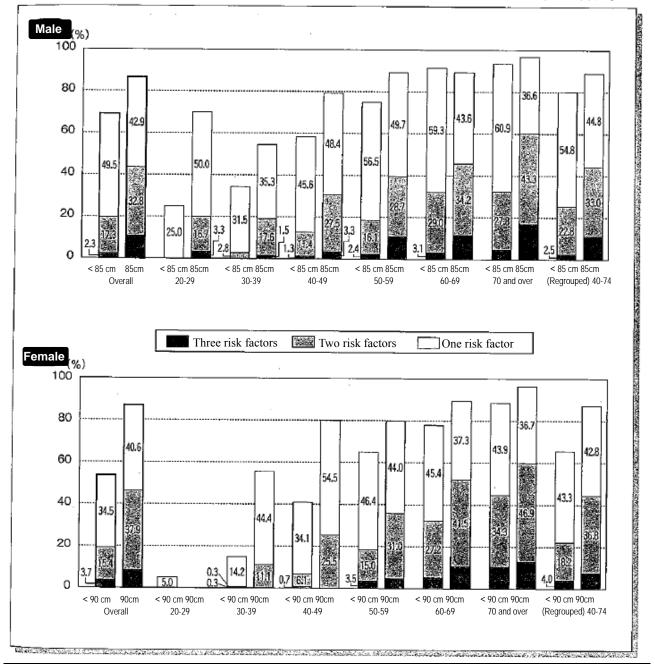
# **Prevalence of the risk factors of Metabolic Syndrome**

The proportion of the subjects with more than two of three risk factors (blood lipid, blood pressure, blood glucose) is higher in those with high abdominal circumference (Male:  $\geq 85$  cm, Female:  $\geq 90$  cm), one of the diagnostic criteria for metabolic syndrome (visceral fat syndrome), than those with normal abdominal circumference.

The proportion of the subjects with more than two of three risk factors (blood lipid, blood pressure, blood glucose) is higher in those with high abdominal circumference (Male:  $\geq$  85 cm, Female:  $\geq$  90 cm), one of the diagnostic criteria for metabolic syndrome, than those with normal abdominal circumference regardless of age group.

The proportion of the subjects with more than two of three risk factors (blood lipid, blood pressure, blood glucose) increased with age in both males and females.

# Figure 6 Proportion of the Subjects with Risk Factors according to Abdominal Circumference (subjects aged 20 years and over)

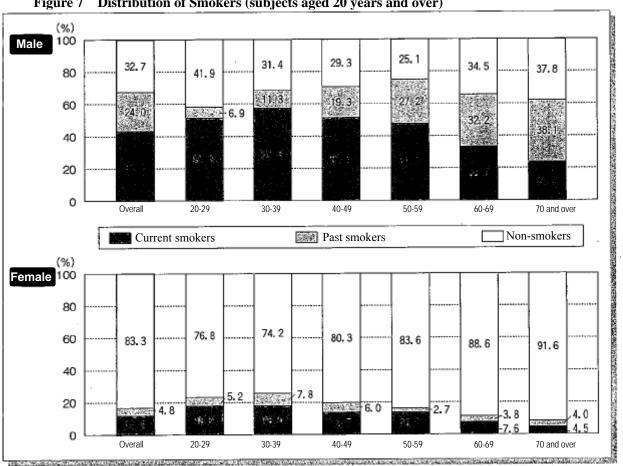


# 2. Lifestyle habits

**Smoking habits** 

The proportion of the males who currently have smoking habit is highest in the age group of 30-39 years (about 60%), followed by the age group of 20-29 years, 40-49 years and 50-59 years (about 50% each), whereas that of females is highest in the age group of 20-39 years (about 20%).

The proportion of the subjects who currently have smoking habit was about 40% for males and 10% for females. This proportion was highest in the age group of 30-39 years (about 60%), followed by the age group of 20-29 years, 40-49 years and 50-59 years in males, whereas it was highest in the age group of 20-39 years (about 20%). And, the proportion of males who used to have smoking habit in the past increased with age.



#### Figure 7 Distribution of Smokers (subjects aged 20 years and over)

### **Current smokers:**

Among the subjects who smoked more than 100 cigarettes in total, or smoked cigarettes over 6 months, those who responded that they had smoked cigarettes "every day" or "sometimes" during the past one month.

# Past smokers:

Among the subjects who smoked more than 100 cigarettes in total, or smoked cigarettes over 6 months, those who responded that they had "not smoked" a cigarette during the past one month.

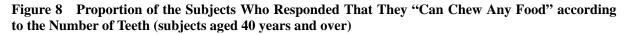
# Non-smokers:

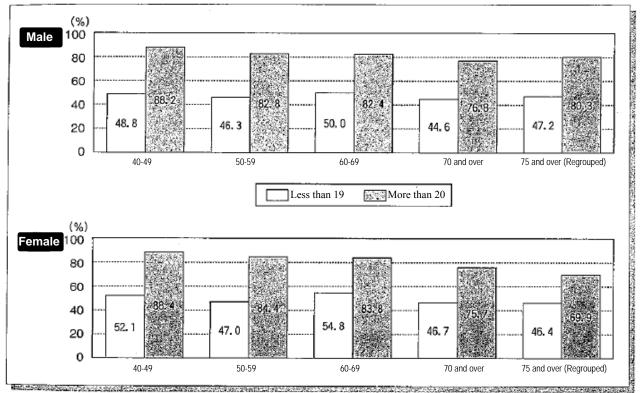
The subjects who responded that they "never smoked" or "smoked less than 100 cigarettes in total for less than 6 months".

# Number of Teeth and Ability to Chew Food

Among the subjects aged 40 years and over, the proportion of those who responded that they "can chew any food" is higher in the ones with 20 or more teeth than those with less than 19 teeth.

Among the subjects aged 40 years and over, the proportion of those who responded that they "can chew any food" was about 80% in the ones with more than 20 teeth, whereas it was about 50% in those with less than 19 teeth. Regardless of age group, the proportion of those who responded that they "can chew any food" was higher in the ones with more than 20 teeth than those with 19 teeth.





For the subjects aged under 30 years, it is difficult to compare by the number of teeth, because only a few number of subjects have less than 19 teeth.

# **Smoking Habits and Teeth**

Among males aged 40 years and over, the proportion of those who responded that they "can chew any food" and the proportion of those with more than 20 teeth are lower in the current smokers than in non-smokers.

The proportion of the subjects who responded that they "can chew any food" decreased with age, and was lower in the current smokers than in non-smokers in all the age groups over 40 years.

And, the proportion of the subjects with more than 20 teeth also decreased with age, and was lower in the current smokers than in non-smokers in all the groups over 40 years.

# • Figure 9 Proportion of the Subjects Who Responded That They "Can Chew Any Food" according to Smoking Habit (subjects aged 40 years and over)

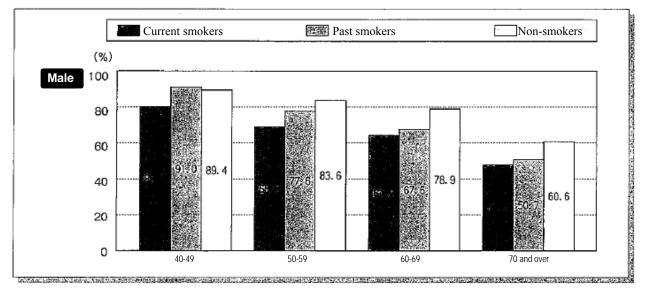
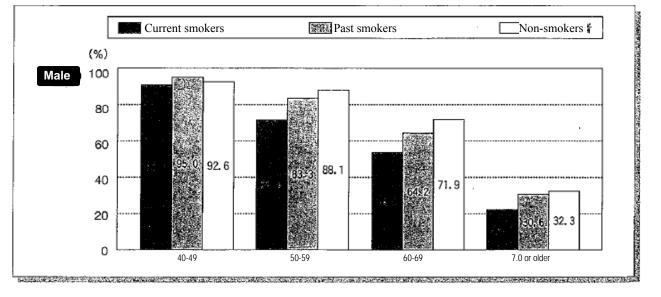


Figure 10 Proportion of the Subjects with More Than 20 Teeth according to Smoking Habit (subjects aged 40 years and over)



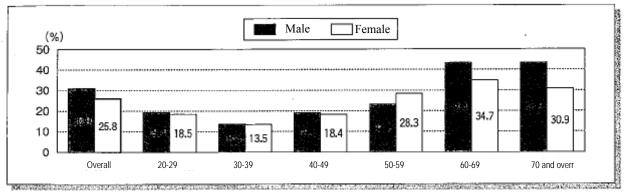
For females, it is difficult to compare by smoking habit because only a few women are current smokers.

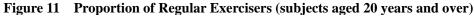
# **Exercise Habits**

About 30% of adult males and about 25% of adult females have regular exercise habits. The proportion of regular exercisers is high in males aged 60 years and over and females aged 50 years and over, whereas it is low in males aged 20-59 years and females 20-49 years.

The proportion of regular exercisers (who exercise more than twice a week for at least 30 minutes over one year period) was high among males aged 60 years and over whereas it was low among males aged 20-59 years and females aged 20-49 years.

And, secular change shows that the proportion of regular exercisers remains unchanged both in males and females, although there is some year-to-year fluctuation. With regard to the age groups, the proportion of regular exercisers is high in males aged 60 years and over and females aged 50 years and over, whereas it was low in the relatively young age groups.





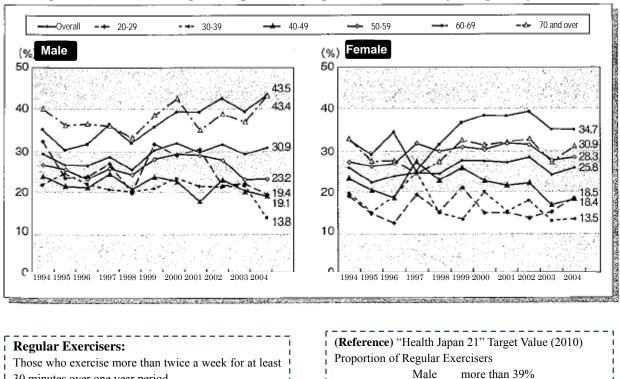


Figure 12 Secular Change in Proportion of Regular Exercisers (subjects aged 20 years and over)

Female more than 35%

30 minutes over one year period

# **Breakfast Skipping Rate**

Overall, the breakfast skipping rate has been increasing in both males and females since 1999. The proportion is highest in the age group of 20 to 29 years in both males (about 30%) and females (about 20%).

Among the subjects aged 20-29 years who live alone, the breakfast skipping rate is about 70% for males and about 30% for females.

The breakfast skipping rate was highest in the age group of 20-29 years, with 34.3% for males and 22.0% for females, after which it decreased with age.

Among the subjects who live alone, the breakfast skipping rate was 65.5% and 41.4% for males aged 20-29 years and 30-39 years respectively, and 29.0% for females aged 20-29 years.

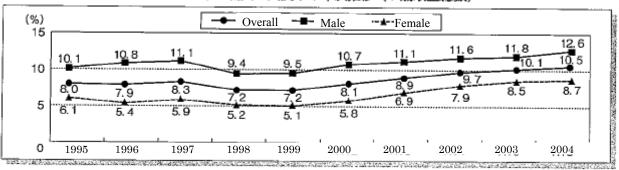
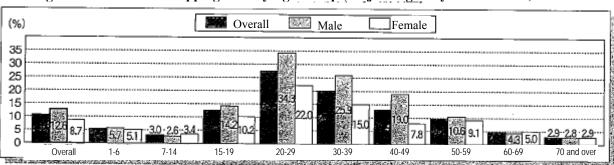
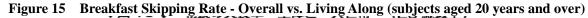
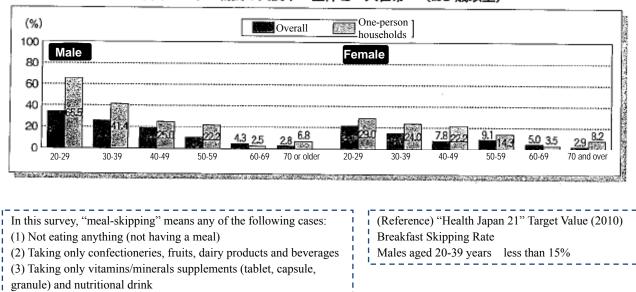


Figure 13 Secular change in Breakfast Skipping Rate (all subjects aged 1 year and over)



# Figure 14 Breakfast Skipping Rate by Age Group (subjects aged 1 years and over)





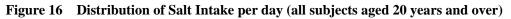
# 3. Dietary Intake

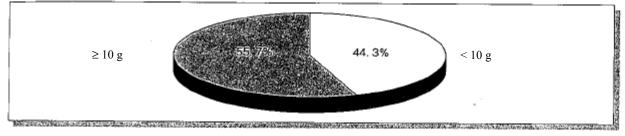


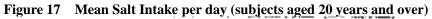
More than 50% of adults take more than 10 g of salt per day

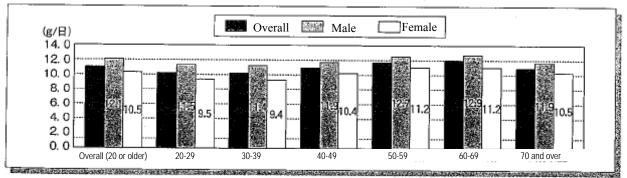
More than 50% of adults take more than 10 g of salt per day.

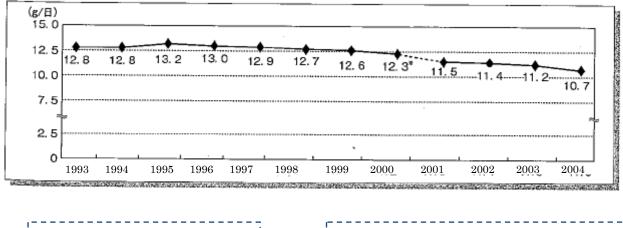
The mean salt intake for adults per day was 11.2 g (12.1 g for males, 10.5 g for females).



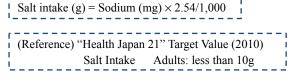










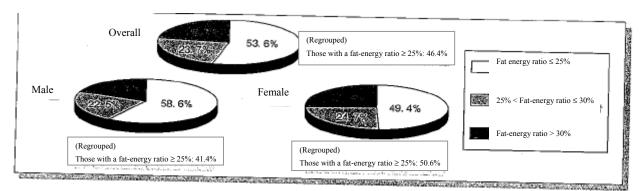


\* Calculations were made using the Standard Tables of Food Composition in Japan, Fourth Revised Edition (until 2000), and the Standard Tables of Food Composition in Japan, Fifth Revised Edition (since 2001).

# **Proportion of three Major Nutrients in Total Energy Intake**

Proportion of the adults who exceed 25% fat energy ratio was about 40% in males and about 50% in females.

Proportion of the adults who exceed 25% of fat-energy ratio was about 40% in males and about 50% in females, and those who exceed 30% was about 20% in males and about 25% in females.

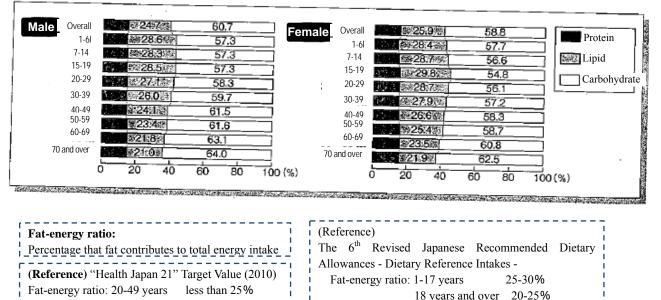


## Figure 19 Distribution of Fat Energy Ratio (subjects aged 20 years and over)

# Figure 20 Changes in Proportion of Major three Nutrients in Total Energy Intake (all subjects aged 1 years and over)

			22			63.1		218	3 kcal	[]
5 (1980)			23.	60020		61.5			4 kcal	Protein
(1985)			新福云·24			60.4		2,088		Lipid
2 (1990)			約386625			59.2		2,026		
(1995)		and the second second	and the second sec	6:45-5:55		57.6		2,042		Carbohydrate
(2000)		_		6.5		57,5		1.948		
(2001)	~		· · · · · · · · · · · · · · · · · · ·			59.7		1.954		
(2002)			@\$\$##\$#25			59.8			) kcal	derge
(2003)			杨秋年3月25.			60.0		1,920		200
(2004)	凖		istan († 25.	<u>3265988</u>		59.7		1,902		0000
	(	0	20	40	60		80	100 (%)		6
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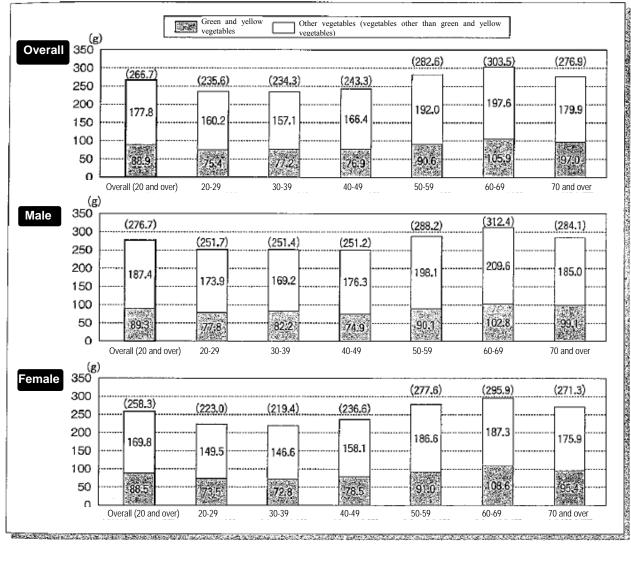
# Figure 21 Proportion of Major three Nutrients in Total Energy Intake according to age group (subjects aged 1 years and over)

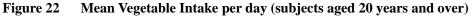


# Vegetable Intake

Vegetable intake increased with age, though it still remained no more than 303.5% even in the age group of 60-69 years with highest average vegetable intakes.

The mean average vegetable intake in all adults was 266.7 g, with highest mean values (303.5g) in those aged 60-69 years, whereas it was low in those aged 20-49 years regardless of sex.





Values in parentheses are the sum of "green and yellow vegetables" and "other vegetables (vegetables other than green and yellow vegetables)".

(Reference) "Health Japan 21" Target Value (2010) Vegetable intake: Adult more than 350g (of which green and yellow vegetables) Adult more than 120g

(Reference) Effect of weather conditions on vegetable intake

In November 2004, the period when the survey was conducted, the prices of fresh vegetables were substantially higher than the usual year because of weather conditions, such as typhoons (the prices of specified vegetables were 190% higher than the previous year, based on the trend of wholesale prices of specified vegetables at the Tokyo Metropolitan Central Wholesale Market).

In addition, the amount of all fresh vegetables purchased during the survey period was less than that in the same period of the previous year (ratio of the amount purchased in November to the average monthly amount purchased during the past 5 years was more than 100% in 2000-2003 and 94% in 2004 (calculated from the results of the "Household Expenditure Survey" by the Ministry of Internal Affairs and Communications).