

medical checkup data accumulated to date. Because the insured individual and their dependents must manage their health conditions throughout their lifespans, their regular medical checkup results should be stored continuously.

- For this purpose, the medical checkup data should be stored for as long as possible to provide access to the health insurer and the insured individual/their dependents.
- The health insurer should examine the possibility of establishing a system that would enable the accumulation of individual medical checkup data and the management of lifelong medical checkup data.
- The insured individual/their dependents might be transferred from one health insurer to another. In such cases, the medical checkup data of an individual should also be transferred to the new insurer after acquiring consent from the insured individual/their dependents.
- During the medical checkup data communication process, sufficient care should be taken to protect personal information.

(2) Storage period

- The health insurer should store the specific medical checkup results for the duration of one of the following periods (whichever ends first):
 1. Five years from the year after the year in which the record was prepared
 2. The end of the year following the year in which the insured individual/their dependents selected a different health insurer
- In light of the abovementioned basic policy in section (1), the health insurer should store their medical checkup data for the entire duration in which the insured individual/their dependents are aged 40–74 years.

(3) Considerations

- An individual might be transferred from one health insurer to another. In such cases, their medical checkup data should be transferred in the following manner: the new health insurer issues a new insurance number/code for the transferred individual. Next, the medical checkup data management number/code used by the former health insurer is replaced by the new number/code. Thus, the new health insurer can use the new number/code to manage the transferred individual's medical checkup data.
- The former health insurer should store the medical checkup data of the individual who was not covered until their data are managed by the new insurer or for a given period of time (e.g. approximately one year) to ensure continuous data management as possible.
- At the request of the insured individual, all of their data collected at and after 40 years of age should be transferred to the new health insurer.

- The insured individual should continuously confirm their own medical checkup data and utilize these data to self-manage their health conditions. For this purpose, the possibility of establishing an annual data accumulation system should be examined and the accumulated annual data should be effectively utilized for health guidance. These approaches promote analyses of the health conditions within populations and annual data variations and facilitate the development of prophylactic strategies.

(Reference)

How to utilize the individual number during the medical checkup data management process while maintaining uniqueness

- The existing insurer number (8-figure number comprising the law-specified and prefectural numbers) and a unique individual number (e.g. the code/number currently used by the insured individual/dependent, employee number, medical checkup reference number) are used.
- Once an individual number is issued, the same number should not be used again. For example, insurance number uniqueness can be maintained by adding the last two figures of the year of issuance to the insurance number.
- An insurance card code/number might not be assigned to each person. In such cases, an individual can be identified by using the insurance card code/number in combination with other information, including the date of birth and name written in Katakana or an added suffix number.

(Case example)

In principle, Amagasaki City in the Hyogo Prefecture stores all the medical checkup records for its staff while they are employed in the city. A retrospective analysis of these data, which were stored for long periods, revealed that individuals who experienced myocardial infarction aggravation had suffered obesity accompanied by increased triglyceride levels for more than 10 years' duration. If these individuals had received medical intervention at an earlier stage, the myocardial infarction aggravation could have been prevented. Therefore, these data can contribute to the development of effective prophylactic strategies, including the preferential provision of medical interventions for individuals with similar conditions.

Chapter 6

Outsourcing of the medical checkups

(1) Basic policies

1. The significance of promoting outsourcing

Medical checkup programs should be structured to serve the users' convenience (e.g. availability on Saturdays, Sundays, and national holidays). By promoting outsourcing of the medical checkups, the users' needs could be satisfied and the percentage of individuals who could undergo medical checkups would increase. However, outsourcing might lead to price wars that could compromise the quality of the medical checkups. Therefore, the outsourcing contractor should be an institution that can assure high-quality medical checkups.

2. Concrete outsourcing procedure

Medical checkups can be outsourced according to the following procedure. First, outsourcing standards should be developed. Second, an outsourcing contractor that can appropriately conduct the medical checkups, including the program-specific laboratory tests, should be selected. The health insurer should independently establish and evaluate the specific medical checkup/health guidance programs.

3. Requirements for the health promotion organizations serving as outsourcers

During the outsourcing period, the health promotion organization is required to monitor whether the medical checkup has been conducted appropriately.

The organization should recognize the nature and importance of personal information and handle the information appropriately. According to the Basic Policy on the Protection of Personal Information (a Cabinet decision dated April 2, 2004,) the healthcare field has been designated as a field that requires the assurance of particularly appropriate and strict personal information handling, given its nature and specific usage. Therefore, outsourcing contractors should handle personal information appropriately.

The health promotion organization can outsource only the data handling operation, including handling of the medical checkup results. In such cases, the outsourcing contractor is required to follow the standards for proper medical checkup data handling as specified by the MHLW Notification No. 92, 2013 (Standards for Outsourcing), and MHLW Notification No. 93, 2013 (Standards for Facilities).

4. Requirements of the outsourcing contractor

The outsourcing contractors should appropriately control the medical checkup accuracy to avoid differences in measurements and judgments between the institutions responsible for the medical checkups.

The standards adopted for the medical checkups conducted at the outsourcing contractor institution should also be applied to medical checkups using a mobile van.

The institution should actively foster health promotion programs, including total ban on smoking in the institutional site.

The health promotion organization can directly perform medical checkups. In such cases, the relevant standards should be strictly followed.

(2) Concrete standards

Specific medical checkups can be outsourced in pursuance of the standards specified by the MHLW Announcements No. 92, 2013 (Standards for Outsourcing), and No. 93, 2013 (Standards for Facilities). In cases in which medical checkups other than the specific medical checkups are outsourced, these announcements should be followed.

Chapter 7

Conducting a medical checkup/health guidance for people aged 75 years and over, and people under 40 years of age

7-1 Conducting a medical checkup/health guidance for people aged 75 years and over

(1) Basic policies

- For people who are aged 75 years and over and do not receive treatment in an outpatient clinic regularly, it is important to utilize opportunities including medical checkups to detect lifestyle-related diseases such as diabetes at an early stage. This will enable them to receive medical treatment early, and prevent the aggravation of these diseases.
- Improvements in one's lifestyle help prevent lifestyle-related diseases. This prophylactic effect, however, seems to be smaller for people aged 75 years and over than for people aged less than 75 years. In addition, as compared to people aged below 75 years, those aged 75 years and over are less likely to succeed in improving their lifestyles. Finally, as people aged 75 years and over are at a higher risk of weight loss and malnutrition, the prevention of decline in their daily living functions seems important to ensure an optimal quality of life (QOL) and to enable them to live independently.
- The physical conditions of people aged 75 years and over differ considerably among individuals. Besides lifestyle-related diseases, there are a number of pathological conditions more frequently detected among this population that should be prevented, including locomotive syndrome, decreased oral function, malnutrition, and cognitive impairment. Therefore, the health conditions for each individual in this age group should be monitored, and appropriate support should be provided to help them improve their lifestyle.

(2) Medical checkup

- Basically, the test items in medical checkups for lifestyle-related diseases such as diabetes applied to the people who are 75 years old and over should be the same as the ones applied to the people who are under 75 years of age.
- The test items included in general medical checkups should be the same as the essential test items included in specific medical checkups focusing on lifestyle-related diseases. At the discretion of the physician in charge, measurement of the abdominal circumference should be conducted.
- For test items performed as detailed examinations such as electrocardiogram (ECG) at the physician's discretion, the physician undertaking the medical checkup should evaluate each patient's need for such examinations and determine whether the patient needs additional test(s) or not. If people are recommended for additional test(s), they should undergo the necessary examinations at a medical institution.

- The people who regularly visit their primary physicians for lifestyle-related diseases, including diabetes, might not necessarily undergo the medical checkup.

(3) Health guidance

- Sufficient attention should be directed to the maintenance of residual ability and the assurance of QOL in people aged 75 years and over. Generally, physical condition, activities of daily living, and mobility differ substantially among individuals. Therefore, the same health guidance for behavior modification provided for people aged 40 to 74 years should not be applied to all people aged 75 years and over. For these people, appropriate health consultations or guidance should be provided based on the result of the medical checkup. Similarly, a system should be established that enables them to receive necessary health consultations or guidance.

(4) Collaboration with the department in charge of nursing care programs

- In some municipal governments, the Department of Welfare for the Elderly might be responsible for nursing care programs and organize various activities to ensure the well-being of the elderly and to maintain/improve their daily living functions. In such case, the department responsible for health guidance should organize medical checkups/health guidance programs for the elderly in collaboration with the department governing nursing care programs by sharing people's data.

7-2 Conducting a medical checkup/health guidance for people under the age of 40 years

- As compared to people aged below 30 years, those who are in their 40's are more likely to suffer from metabolic syndrome or to be candidates for metabolic syndrome development. Therefore, people under the age of 40 years should be provided with educational programs that help them understand the importance of a healthy lifestyle and the methods of preventing lifestyle-related diseases. Besides these educational programs, health insurers must encourage the insured to undergo general medical checkups before they reach the age for specific medical checkups/specific health guidance (the insured are generally advised to undergo medical checkups when they reach the ages of 30 and 35). Subsequently, specific health guidance is provided only for people who must improve their lifestyle. In this manner, the number of people requiring specific health guidance can be reduced substantially.
- It has been clearly demonstrated that weight gain after 20 years of age is associated with onset of lifestyle-related diseases. * Therefore, insured people should be provided with health guidance and educational programs that help them maintain appropriate body weight as early on as possible.

*According to a study on Japanese people comparing those who gained less than 5 kg weight for about 30 years after the age of 20 with those who gained more than 5 kg weight during this period, men who

gained more than 5 kg weight had a 2.61-fold greater risk of developing diabetes and women had a 2.56-fold greater risk of developing diabetes. (Nanri A, Mizoue T, Takahashi Y, et al. J Epidemiol Community Health doi: 10.1136/jech.2009.097964, 2011)

Comparison between specific medical checkups and medical checkups as specified by the Industrial Safety and Health Act and the School Health and Safety Act

			Specific medical checkup	Medical checkup specified by the Industrial Safety and Health Act	Medical checkup specified by the School Health and Safety Act *4
Examination	Questionnaire (history taking)		○	○ *1	○
	Measurement	Height	○	●1	○
		Weight	○	○	○
		BMI	○	○	○
		Abdominal circumference	○	●2 *2	○
	Physical findings (physical examination)		○		
	Blood pressure		○	○	○
	Visual acuity			○	○
	Hearing acuity			○	○
	Examination for subjective/objective symptoms			○	○
Lipids	Triglyceride		○	●2	○
	HDL-cholesterol		○	●2	○
	LDL-cholesterol		○	●2	○
Liver function	AST (GOT)		○	●2	○
	ALT (GPT)		○	●2	○
	γ-GT (γ-GTP)		○	●2	○
Metabolic system	Fasting blood glucose		◎	◎	◎
	HbA1c		◎	◎	◎
	Sugar in the urine (semi-quantitative test)		○	○	○
Blood in general	Hematocrit value		△		
	Hemoglobin level		△	●2	○
	Red blood cell count		△	●2	○
Urine/kidney function	Protein in the urine (semi-quantitative test)		○	○	○
	Occult blood in the urine				
	Serum creatinine				
12-lead ECG			△	●2	○
Funduscopy			△		

Chest X-ray examination		●3	○
Upper gastrointestinal X-ray examination			
Sputum examination		△ *3	△

Abbreviations: BMI = Body Mass Index, HDL = high-density lipoprotein, LDL = low-density lipoprotein, AST (GOT) = aspartate aminotransferase (Glutamic Oxaloacetic Transaminase), ALT (GPT) = alanine aminotransferase (Glutamic Pyruvic Transaminase), γ -GT (γ -GTP) = γ -glutamyltransferase (γ -glutamyl transpeptidase), HbA1c = hemoglobin A1c

○: Essential item.

△: Optional item (performed at the physician's discretion).

◎: Item that can be replaced by other items.

●1: Item that can be eliminated at the physician's discretion if the subject is 20 years old and over.

●2: Item that can be eliminated at the physician's discretion if the subject is under the age of 40 years (except for people aged 35).

●3: Item that can be eliminated at the physician's discretion if the subject is under the age of 40 years (except for people aged 20, 25, 30 and 35 years), is not a worker requiring regular medical checkups for tuberculosis, as specified by the Infectious Disease Law, and is not a worker requiring the triennial medical checkup for pneumoconiosis, as specified by the Pneumoconiosis Act.

*1: Strict checking of smoking and medication history is recommended (notification No. 697, Labour Standards Bureau, MHLW, dated January 17, 2008).

*2: The item can be eliminated if the physician deems it unnecessary and if the subject meets one of the following conditions:

1. Age < 40 years (people aged 35 years are excluded).
2. Pregnant women or others whose abdominal circumference does not reflect the accumulation of visceral fat.
3. $BMI < 20$, $BMI (kg/m^2) = \text{Body weight (kg)} / [\text{Height (m)}]^2$
4. The subject measures his/her abdominal circumference and reports the result (his/her BMI should be under 22).

*3: The item can be eliminated at the physician's discretion if the subject has no lesion, or is not at risk of developing tuberculosis, as demonstrated by the findings of the chest X-ray.

*4: The item is only applicable to teaching staff.

“Detailed medical checkup” items

Of the people who meet the criteria outlined below, those whose physicians recognize the necessity of a detailed medical checkup should undergo the check up [it is not appropriate to recommend people meeting the standards to undergo all items of the detailed medical checkup. The treating physician should consider the individual subject’s background (e.g., gender, age, etc.) and make an appropriate judgment for each item]. Subsequently, the physician in charge of the medical checkup should explain to the insurer and the concerned subject the reason for recommending him/her to undergo a detailed medical checkup.

Some people may not need to undergo reexaminations, as the results of laboratory tests conducted at other medical institutions in the recent past may be available. Other people suffering from diabetes, hypertension, hyperlipidemia, ischemic heart disease, or cerebrovascular disease may regularly consult with their physicians at the hospital. These people may not need to undergo a detailed medical checkup. The physicians treating them should consider their current symptoms and make appropriate decisions. Some people may need to consult a physician immediately. They should be strongly advised to go to a hospital for additional examinations, for which medical fees are charged.

(1) 12-lead ECG

- Persons who met the criteria (shown below) related to all the following four conditions at a medical checkup conducted in the previous year: (1) increased blood glucose, (2) lipid abnormality, (3) increased blood pressure, and (4) obesity.

(2) Funduscopy

- Persons who met the criteria (shown below) related to following all four conditions at a medical checkup conducted in the previous year: (1) increased blood glucose, (2) lipid abnormality, (3) increased blood pressure, and (4) obesity.

(3) Anemia test

- Persons with a history of anemia, or those who are suspected of suffering from anemia based on test results.

[Criteria]

1) Increased blood glucose

- a. Fasting blood glucose ≥ 100 mg/dL or
- b. HbA1c (NGSP) $\geq 5.6\%$

- 2) Lipid abnormality
 - a. Triglycerides ≥ 150 mg/dL or
 - b. HDL cholesterol < 40 mg/dL

- 3) Increased blood pressure
 - a. Systolic blood pressure ≥ 130 mmHg or
 - b. Diastolic blood pressure ≥ 85 mmHg

- 4) Obesity
 - a. Abdominal circumference ≥ 85 cm (males), ≥ 90 cm (females) or
 - b. BMI ≥ 25 kg/m²

Standard Questionnaire

	Questionnaire	Response
1-3	Do you currently use the following drugs * ¹ ?	1. Yes 2. No
1	a. Antihypertensive drugs	1. Yes 2. No
2	b. Insulin injection or antihyperglycemic drugs	1. Yes 2. No
3	c. Cholesterol-reducing * ² drugs	1. Yes 2. No
4	Have you been told by a physician that you have suffered a stroke (cerebral hemorrhage, cerebral infarction, etc.) or have you ever received treatment for stroke?	1. Yes 2. No
5	Have you been told by a physician that you suffer from heart diseases (angina pectoris, myocardial infarction, etc.) or have you ever received treatment for heart diseases?	1. Yes 2. No
6	Have you been told by a physician that you suffer from chronic renal failure or have you ever received treatment for chronic renal failure (dialysis)?	1. Yes 2. No
7	Have you been told by a physician that you suffer from anemia?	1. Yes 2. No
8	Are you currently a habitual smoker? (* "A current habitual smoker" is defined as a person who has smoked a total of 100 cigarettes or more, or has a history of smoking for more than 6 months, and has been smoking for the past one month.)	1. Yes 2. No
9	Has your body weight increased by 10 kg or more since the age of 20 years?	1. Yes 2. No
10	Have you performed exercise with slight sweating for 30 minutes or more, at least twice a week, for more than one year?	1. Yes 2. No
11	Do you walk, or engage in some physical exercise equivalent to walking, for one hour or more a day?	1. Yes 2. No
12	Do you walk faster than people who are of nearly the same age and the same sex as you?	1. Yes 2. No
13	Did you experience a weight gain/loss of 3 kg or more in the past year?	1. Yes 2. No
14	Do you eat faster than others?	1. Fast 2. Normal 3. Slow
15	Do you eat dinner within 2 hours before sleep at least three times a week?	1. Yes 2. No
16	Do you eat any snacks after dinner (a bedtime snack, other than three regular meals) three times or more a week?	1. Yes 2. No
17	Do you miss breakfast three times or more a week?	1. Yes 2. No
18	How often do you drink alcoholic beverages (sake, distilled spirit, beer, whiskey, wine, etc.)?	1. Every day 2. Occasionally 3. Rarely (I do not drink)
19	How much do you drink a day? Alcohol content equivalent to a small bottle of sake (180 ml): an average sized bottle of beer (about 500 ml), a glass of distilled spirit (35 proof liquor, 80 ml), a glass of whiskey (60 ml), two glasses of wine (240 ml)	1. < 1 small bottle of sake 2. 1-2 small bottles of sake 3. ≥ 3 small bottles of sake

20	Do you sleep well and get a sufficient amount of rest?	1. Yes 2. No
21	Do you intend to improve your lifestyle, including fitness and dietary habits?	1. I do not intend to improve them. 2. I intend to improve them (within about 6 months). 3. I intend to improve them soon (within about one month). I have already started doing so. 4. I have already attempted to improve them (for less than 6 months). 5. I have already attempted to improve them (for more than 6 months).
22	Do you utilize health guidance services to improve your lifestyle, if available?	1. Yes 2. No

*¹: Applicable to people undergoing drug treatment according to the attending physician's diagnosis and order.

*²: Also applicable to the drugs that decrease serum triglycerides.

Separate Form 3 (Reference)

	Questionnaire	Examples of explanation and utilization of responses
1 2 3	Do you currently use the following drugs? a. Antihypertensive drugs b. Insulin injection or antihyperglycemic drugs c. Cholesterol-reducing drugs	<ul style="list-style-type: none"> ● Some people may have already received treatment for hypertension, diabetes, or hyperlipidemia at hospitals and been placed on drug therapy. They may also have received support at the hospital to help them improve their lifestyles. Therefore, they do not require specific health guidance. This item checks if they need the specific health guidance. ● Note that some people may select “No” as their response because they may just forget to take drug(s); they actually are receiving treatment at a hospital, or may discontinue treatment. This item should be checked sufficiently. ● The expression “cholesterol-reducing drugs” is used to explain the “drugs for hyperlipidemia” in colloquial terms. One needs to remember that drugs that reduce triglyceride levels are also included in this category. ● According to a report, people are less conscious of the drugs for hyperlipidemia than they are of those for diabetes or hypertension. Sufficient consideration should be given to this point. ● After initiation of specific health guidance, the fact that the concerned subject has been placed on drug therapy may be disclosed. Then, they must be excluded from the category of those who requiring specific health guidance. If the subject needs further support for lifestyle improvement, health guidance can be provided in collaboration with their treating physician.
4	Have you been told by a physician that you have suffered a stroke (cerebral hemorrhage, cerebral infarction, etc.) or have you ever received treatment for stroke?	<ul style="list-style-type: none"> ● A subject with a history of stroke is at a higher risk of recurrence of stroke or onset of ischemic heart disease*¹. ● For people with a history of stroke, support should be provided to improve their dietary habits or physical activity, in collaboration with their treating physician.
5	Have you been told by a physician that you suffer from heart diseases (angina pectoris, myocardial infarction, etc.) or have you ever received treatment for heart diseases?	<ul style="list-style-type: none"> ● A subject with a history of ischemic heart disease such as myocardial infarction is at a higher risk of the recurrence of ischemic heart disease or heart failure*¹. ● For people with a history of heart diseases, support should be provided to improve their dietary habits or physical activity, in collaboration with their treating physician.
6	Have you been told by a physician that you suffer from chronic renal failure or have you	<ul style="list-style-type: none"> ● A subject with a history of chronic renal failure is at a higher risk of incidence of myocardial infarction, heart

	ever received treatment for chronic renal failure (dialysis)?	<p>failure, or stroke*².</p> <ul style="list-style-type: none"> ● For the subject with a history of chronic renal failure, support should be provided to improve their dietary habits or physical activity, in collaboration with their treating physician.
7	Have you been told by a physician that you suffer from anemia?	<ul style="list-style-type: none"> ● The type of anemia, cerebral anemia (including orthostatic dizziness due to vagal reaction) or iron-deficiency anemia, the subject was treated for must be confirmed for people who agree with this statement (i.e., select “Yes”). Therefore, the expression “by a physician” was included in this item. ● The present treatment conditions need to be checked for people with iron-deficiency anemia. If they continue to receive treatment for the anemia, support may be provided to improve their dietary habits or physical activity, as needed, in collaboration with their treating physician. If the subject discontinues the necessary treatment at their own discretion, they are advised to undergo a detailed examination at a hospital.
8	Are you currently a habitual smoker? (* “A current habitual smoker” is defined as a person who has smoked a total of 100 cigarettes or more, or has a history of smoking for more than 6 months, and has been smoking for the past one month.)	<ul style="list-style-type: none"> ● Smoking is an independent risk factor for arteriosclerosis. ● Smoking increases the risk of abnormal laboratory results, including increased blood glucose, increased serum triglyceride or LDL cholesterol, and decreased HDL cholesterol^{*3, *4}. ● According to a Japan Public Health Center-based prospective study (JPHC study), males and females currently smoking more than 20 cigarettes a day have 1.4 times and 3.0 times the risk of type 2 diabetes, respectively, as compared to nonsmokers ^{*5}. ● According to a 14-year followup of a study(NIPPON DATA 80), male smokers consuming less than a package of cigarettes and those consuming more than 2 packages of cigarettes per day have a 1.5- and 2.2-fold greater risk of dying from stroke, respectively, as compared to male nonsmokers. Further, the same groups have a 1.5- and 4.2-fold greater risk of dying from ischemic heart disease, respectively, as compared to male nonsmokers ^{*6}. ● A combination of smoking and metabolic syndrome contributes to further aggravation of arteriosclerosis. Smokers with metabolic syndrome have a 4- to 5-fold higher risk of cerebral infarction or myocardial infarction, as compared to nonsmokers without

		<p>metabolic syndrome *7.</p> <ul style="list-style-type: none"> ● Persons who reported being a current habitual smoker (selected “Yes”), depending on their intention to refrain from smoking, should be provided with advice/information on quitting smoking on the day of the medical checkup and through health guidance after the medical checkup. At their request, a list of smoking cessation clinics can be provided. ● Persons who selected “No” may include those who refrained from smoking in the past, as well as those who may have stopped recently. This information may be obtained by modifying this item or asking follow-up questions. Their success in quitting smoking should be appreciated, and they should be encouraged to continue to refrain from smoking.
9	Has your body weight increased by 10 kg or more since the age of 20 years?	<ul style="list-style-type: none"> ● Weight gain due to an erratic lifestyle may be indicative of energy intake that exceeds energy consumption (10 kg weight gain = 70,000 kcal). This question allows recognition of disturbed energy intake/consumption balance. ● The more weight gained, the higher the prevalence of diabetes/ hypertension. ● According to a study on Japanese people comparing those who gained less than 5 kg weight for about 30 years after the age of 20 with those who gained more than 5 kg weight during this period, men who gained more than 5 kg weight had a 2.61-fold greater risk of developing diabetes and women had a 2.56-fold greater risk of developing diabetes*8.
10	Have you performed exercise with slight sweating for 30 minutes or more, at least twice a week, for more than one year?	<ul style="list-style-type: none"> ● It has been suggested that regular/continuous practice of exercise programs with slight sweating, including fast walking, bodily exercise, jogging, running, swimming, and ball games (activities with the exercise intensity exceeding 3 METs), at more than 4 METs-hour/week (for more than 60 minutes a week), decreases the risk of developing lifestyle-related diseases and the possibility of dying from them by 12%*9. ● To limit the exercise programs to those with an intensity just exceeding 3 METs (i.e., those with the intensity of about 4 METs), the subjective impression of “slight sweating” was added to this item. ● If subjects selected “No,” what effort they make to practice exercise and what risk they have for lifestyle-related disease need to be examined, and appropriate support should be provided so that they

		<p>can select simple exercises for beginners^{*9}.</p> <ul style="list-style-type: none"> ● To prevent accidental cardiovascular incidents or injuries during exercise, exercise programs with an intensity of 6 METs or less, which cause the minimum amount of subjective “stress,” should be recommended in the early stage of health guidance.
11	Do you walk, or engage in some physical exercise equivalent to walking, for one hour or more a day?	<ul style="list-style-type: none"> ● To be considered as standard physical activities, activities with intensity exceeding 3 METs should be practiced at 23 METs·hour/week^{*9}. Thus, standard activities include labor work, domestic work, transference, and exercises. Thus, a subject should engage in walking or other physical activities with an intensity equivalent to that of walking for more than 60 minutes a day, even if it is divided into several shorter periods of exercise within the day. ● It has been suggested that an increase in physical activity by 10 minutes a day contributes to decrease in the risk of lifestyle-related diseases by about 3%^{*9}. ● If the subject selects “No” for this item, their exercise habits and risks of lifestyle-related disease need to be examined, and appropriate support should be provided so that they can select simple exercises for beginners^{*9}.
12	Do you walk faster than people who are of nearly the same age and the same sex as you?	<ul style="list-style-type: none"> ● Through this item, the physical strength or activity of the subject concerned can be evaluated. ● One study evaluated subjects’ physical strength by asking if they had as much physical strength as the people of nearly the same age and the same sex. Findings revealed that, compared to those who considered themselves stronger than the others, those who considered themselves to have poorer physical strength had a 3- to 4-fold greater risk of developing cardiovascular diseases and possibility of dying from cardiovascular diseases in the future. ● Further, it has been shown that if the physical strength of a subject exceeds the average physical strength (maximal oxygen uptake) of people of their sex and age, their risks of developing lifestyle-related diseases and the possibility of dying from them in the future are lower. ● It has been suggested that daily walking speed is related to maximal oxygen uptake, and that the risk of developing lifestyle-related diseases and the possibility of dying from them is 20-30% lower in those who walk faster. ● If a subject selected “No” for this item, they may have some physical problems, including pain in the feet,

		<p>low back pain, and decreased motor function, in addition to limited physical strength. In such cases, their exercise habits and their risk of lifestyle disease should be examined, and relevant support should be provided.</p>
13	Did you experience a weight gain/loss of 3 kg or more in the past year?	<ul style="list-style-type: none"> ● The fluctuation of body weight in the past year reflects a change in the energy balance, likely due to a change in lifestyle/environment. ● It should be confirmed whether the subject's body weight increased/decreased by 3 kg or more. Then, appropriate health guidance should be provided. ● In the case of a weight loss of more than 3 kg, it should be confirmed if this change is due to an improvement in lifestyle. If the change is not the result of lifestyle improvements, the possibility of weight loss due to pathological conditions, including malnutrition resulting from loss of appetite or change in dietary environment, malignant neoplasm, or hyperthyroidism, should be examined. ● In the case of a weight gain of more than 3 kg, it should be examined if this acute change is due to a change in living environment, or if the body weight increased gradually year by year. These possibilities should be sufficiently considered before determining the target body weight.
14	Do you eat faster than others do?	<ul style="list-style-type: none"> ● According to a study conducted in Japanese people, eating speed is associated with the degree of obesity (BMI)^{*10}. ● The percentage of people who eat fast is higher in obese people (BMI ≥ 25.0 kg/m²) than in low-weight people (BMI < 18.5 kg/m²) and normal-weight people (BMI 18.5 kg/m² to 25.0 kg/m²)^{*11}. ● Compared to people who eat slowly, those who eat fast are at about twice the risk of developing diabetes^{*12}. ● If people select the response "faster" and are predisposed to obesity, it should be confirmed if they have some unavoidable working or living condition causing this situation, and sufficient sympathy should be expressed. Then, effective methods must be devised using a collaborative approach and appropriate support should be provided to address their situation. ● These methods include "understanding the importance of repeated chewing," "making mealtimes pleasant with conversation," "avoiding swallowing food with soup," and "increasing the consumption of

		vegetables.”
15	Do you eat dinner within 2 hours before sleep, at least three times a week?	<ul style="list-style-type: none"> ● According to a report, in a medical checkup conducted one year after initial assessment, people who changed their response from “Yes” to “No”; they had refrained from eating dinner within 2 hours before sleep, achieved decreased abdominal circumferences and increased HDL cholesterol levels ^{*13}. ● If a subject selects the response “Yes” and is predisposed to obesity, it should be confirmed if they have some unavoidable working or living condition causing this situation, and sufficient sympathy should be expressed. Then, effective methods must be devised using a collaborative approach and appropriate support should be provided to address their situation. ● In this case, bedtimes should not be extended, and the intake of energy or carbohydrate before sleep should be controlled by eating dinner earlier or adding snacks effectively.
16	Do you eat any snacks after dinner (a bedtime snack, other than three regular meals) three times or more a week?	<ul style="list-style-type: none"> ● According to a survey, obese people tend to eat snacks after dinner, more frequently than normal-weight people ^{*14}. ● In a medical checkup that was conducted one year later, people who changed their response from “Yes” to “No”, i.e. they no longer engaged in snacking after dinner, achieved weight loss according to a report ^{*13}. ● If a subject selected “Yes” and is predisposed to obesity, it should be confirmed if they have some unavoidable working or living condition causing this situation, and sufficient sympathy should be expressed. Then, effective methods must be devised using a collaborative approach and appropriate support should be provided to address their situation. . ● These supportive methods include an approach based on behavioral science. For example, the concerned subject is instructed to maintain a diary and record the time they snack and the contents of the snack. In this manner, they become aware of how often they engage in snacking and recognize the necessity for improving their eating behavior.
17	Do you miss breakfast three times or more a week?	<ul style="list-style-type: none"> ● In medical checkups conducted one year after initial assessment, people who changed their response from “Yes” to “No”; they do not miss breakfast for more than three times a week, achieved decreased LDL cholesterol level according to a report ^{*13}. ● If a subject selects “Yes” for this item, it should be confirmed if they have some unavoidable working or

		<p>living condition causing this situation, and sufficient sympathy should be expressed. Then, effective methods must be devised using a collaborative approach and appropriate support should be provided to address their situation.</p> <ul style="list-style-type: none"> ● Sufficient consideration should be given to their bedtime and other situations including timing of eating dinner (and subsequent snacks). Then, an environment in which they want to eat breakfast should be created. ● For example, breakfast should be prepared with due consideration of volume and balance. However, the stress associated with preparing breakfast should be reduced by recommending a rather simple breakfast.
18	How often do you drink alcoholic beverages (sake, distilled spirit, beer, whiskey, wine, etc.)?	<ul style="list-style-type: none"> ● Alcohol consumption is linked to several health problems. It is known that the risk of such problems (e.g., hypertension, cerebral hemorrhage, hyperlipidemia) has a nearly linear positive relationship with mean daily consumption of alcoholic beverages. The overall mortality and risks of cerebral infarction and ischemic heart disease do not necessarily increase in a linear manner with an increase in alcoholic beverage consumption. However, people who drink alcoholic beverages beyond a certain volume are reported to be at a higher risk of developing these pathological conditions. ● By integrating the responses to items 18 and 19, the nature of alcohol consumption can be quantified. ● For instance, a subject who selects “Every day” or “Occasionally” for item 18, and “1–2 small bottles of sake” or the options indicating more alcohol consumption in item 19, is highly likely to have a “drinking habit that contributes toward a higher risk of lifestyle-related diseases”, as defined in Health Japan 21 (2nd edition). According to this source, “a drinking habit that contributes toward a higher risk of lifestyle-related diseases” is defined as to drink mean daily pure alcohol consumption: ≥ 40 g (males), ≥ 20 g (females). To cope with these cases, please refer to the appendix of Volume 3 of this program, reexamine the nature of the subject’s alcohol consumption (using the AUDIT⁺), and attempt to provide appropriate support for reducing alcohol consumption (brief intervention⁺⁺). <p>⁺ AUDIT (alcohol use disorders identification test): The nature of alcohol consumption is investigated and scored by using a self-administered</p>
19	How much do you drink in a day?	