A Basic Direction for Comprehensive Implementation of National Health Promotion

This direction, under aging population with falling birth rate and transition of disease structure of our nation in the 21st century, through improvement of lifestyle and social environment, aiming all of citizens from infant to elderly to have hope and meaning for living under supporting each other, aiming to achieve a vibrant society with healthy and spiritually rich lives according to life stages (i.e. each stage of human life such as infancy, childhood, adolescence, adulthood, older ages and so on), and then aiming social security system to become sustainable, declares basic matters for comprehensive implementation of national health promotion, and promote "The second term of National Health Promotion Movement in the twenty first century (Health Japan 21 (the second term))" (National Movement) from 2013 fiscal year to 2022 fiscal year.

1. Basic goals for implementation of National Health Promotion

A) Extension of healthy life expectancy and decrease in health disparities

Addressing issues associated with the rapid increase of the aging population and change of diseases structure, through prevention of life-style related diseases, and improvement and maintenance of healthy body functions, we will extend healthy life expectancy (length of life that an individual is fully functional for daily activities).

Furthermore, through development of social environment which supports health life at every life stage, we decrease health disparities (gap in health status created by socioeconomic status within a community).

B) Primary and secondary prevention of life-style related diseases (prevention of NCD*)

This goal is intended to prevent various cancers, cardiovascular diseases, diabetes and chronic obstructive pulmonary disease (COPD). The emphasis is on lifestyle behaviors, such as eating healthy diet and getting habitual exercise, as well as primary and secondary prevention of NCD.

* Cancer, cardiovascular disease, diabetes, and COPD are categorized as lifestyle-related chronic diseases. These diseases are coded as non-communicable diseases (NCD) internationally, and are particularly responsive to lifestyle modification strategies.

C) Improvement and maintenance of function for social abilities

This policy was developed to address issues that contribute to the maintenance of function at every life stage from infants to elderly people. It is also important to address mental health issues at workplace.

D) Establishment of a social environment where health of individuals is protected and supported

As health of the individual is affected by social environment of family, schools, the community, and workplaces, it is important to endeavor to develop environment which support and protect health of individuals as overall society. Therefore, we establish a supportive environment not only provided by the government, but also by corporations and non-profit organizations.

Furthermore, by promoting mutual benefit and social ties, both in the community and occupational setting, this policy is intended to help organize a supportive and inclusive environment where the health of everyone is advanced.

E) Nutrition and healthy diet, physical activity and exercise, proper rest, alcohol drinking, tobacco smoking, and oral health.

To accomplish the four targets above, it is important to improve nutrition and healthy diet, physical activity and exercise, proper rest, alcohol drinking, tobacco smoking, and oral health as basic factors related to health promotion of citizens. For the effective establishment of health promotion programs, it is crucial to segment the target populations based on socioeconomic status, life stage, and gender differences and incorporate distinctive characteristics, needs, and health issues.

In addition, we specially conduct measures to improve life styles among high-risk population of life-style related diseases or adolescences and middle-aged adults who will be elderly during period when proportion of elderly population becomes largest in accordance with the context, and also reinforce health promotion among citizens through communities and workplaces, based on effect of social environment on health of citizens.

2. Targets for health promotion among citizens

A) Targets setting and evaluation

National government provides an infrastructure that increases awareness of health promotion among Japanese professionals in related fields. In addition, conducting continuous research and analysis of health measures and providing the results to the public enhances the field of health promotion in the country and therefore contributes to optimizing health status at the individual level.

In order to encourage Japanese to take part in health promotion activities, health professionals with a wide range of specialties should collaborate to develop evidence-based targets that last up to approximately 10 years. These targets should be based on the experts' knowledge, experience, and shared values regarding current situations and problems.

Consecutive analysis and follow-up research should be conducted, especially for major targets, so that health disparities and differences in lifestyle that may be present among regions can be accurately identified. Furthermore, conducting mid-term evaluations after five years and final evaluations after 10 years of execution of the policies is essential to determine the effectiveness of specific activities for each target.

B) Concepts on target setting

In order to optimize extension of healthy life expectancy and decrease in health disparities, this policy encourages the primary and secondary prevention of life-style related diseases, the development

of healthier lifestyles, and a better social environment.

① **Extension of healthy life expectancy and decrease in health disparities**

Extension of healthy life expectancy and decrease in health disparities are the final targets that this policy intends to achieve by improving lifestyles and organizing the social environment. The specific targets are shown in appendix table 1, based on indicator of length of life that an individual is fully functional for daily activities. In addition, the execution of comprehensive health promotion plans and cooperation among a wide range of fields, such as medical care and nursing care, are needed to achieve these targets.

② **Primary and secondary prevention of life-style related diseases (prevention of NCD*)**

For extension of healthy life expectancy of citizens, it is important to conduct measures to diabetes whose number of patients is increasing and which leads to serious complications, and COPD, whose umber of death is predicted to be increasing in the near future, as well as measures to cancer and cardiovascular disease as major causes of death in our nation.

For cancer, the target is increment in participation rate of cancer screening especially for promotion of early detection as well as reduction of age-adjusted mortality rate, in viewpoint of comprehensive promotion of prevention, diagnosis treatment and others.

For cardiovascular disease, the target is improvement of hypertension and reduction of dyslipidemia, which are risk factors of incidence of cerebrovascular disease and ischemic heart disease, and reduction of mortality due to these diseases.

For diabetes, the target is adequate control of blood glucose levels, reduction of patients to suspend the treatment and reduction of complications to prevent becoming severe, as well as halt of people with it by prevention of incidence. .

For COPD, the target is raising awareness of COPD, because early detection is important, and because we can prevent by smoking cessation as tobacco smoking is the strongest risk factor,

The specific targets we mentioned above are shown in appendix table. To achieve these targets, national government conducts promotion of behavior change such as healthy diet, adequate exercise, smoking cessation and others and establishment of a social environment as well as promotes partnership among health care providers and conducts specific health checkups and specific health guidance.

③ **Improvement and maintenance of health status in regard to maintaining social functions**

With the low birth rate and rapid increase of the aged population, it is important for the Japanese to maintain their health status, which enables them to maintain social functioning as long as possible.

Maintaining mental health is as important as physical health. Mental health is an important component of quality of life. In other words, by supporting a society where people's healthy state of mind is protected, this policy aims to reduce the suicide rate and prevalence of serious depressive conditions, improve the occupational environment, and decrease children's mental and physical conditions.

Moreover, this policy stresses the importance of promoting the health of pregnant women and children, who are the future of citizens. Thus, this policy aims to increase the number of children who maintain a healthy lifestyle and proper weight throughout their lives.

In addition, for the purpose of delaying the deterioration of body functions associated with aging, focusing on health promotion among the elderly is also crucial because it is directly related to a decrease in nursing-care service users and the prevention of deterioration of cognitive function and locomotive syndrome. In turn, helping the elderly maintain nutrition intake and physical activity increases the likelihood that they will actively take part in society as they age.

The specific targets we mentioned above are shown in appendix table 3. National government conducts improvement of measures to mental health, measures to health promotion for pregnant women and children, and measures to prevention and support in nursing care.

④ **Establishment of a social environment where the health status of the individual is protected and supported**

It is important to include individuals, private corporations, non-profit organizations, and non-governmental organizations to establish a social environment where the health status of the individual is not only protected but also supported. The specific targets are shown in appendix table 4. This policy aims to empower communities, increase the number of individuals who participate in activity for health promotion, encourage corporations to proactively disseminate health-related information, and increase access to local facilities where individuals can obtain health information or counseling. The specific targets are shown in appendix table 4. As a result, this holistic effort enables people to identify health disparity issues that may occur locally and to induce more local governments to make efforts to solve health-related issues.

⑤ **Improvement of lifestyles and social environment related to nutrition and healthy diet, physical activity and exercise, proper rest, alcohol drinking, tobacco smoking and oral health**

The targets of, nutrition and healthy diet, physical activity and exercise, proper rest, alcohol drinking, tobacco smoking, and oral health are shown in appendix Table 5, based on following viewpoints.

1. Nutrition and healthy diet

Nutrition and healthy diet play a crucial role in the prevention of NCDs, improvement and maintenance of health to preserve social function and the improvement of quality of life. Thus, targets for nutrition and healthy diet include a wide range of issues including focusing on the next generation and elderly, adherence to proper weight and appropriate diet at every life stage, and development of a supportive social environment, such as promotion of a low-salt diet and specific food service facilities (food service facilities providing meals continuously to a large number of specific people; the same applies hereinafter).

In order to achieve these targets, the government is developing guidelines and standards on nutrition and healthy diet, encouraging related organizations to increase awareness of healthy diets,

promoting *shoku-iku* (term used for "dietary education or food education"), educating professionals, and organizing collaboration among private corporations and non-profit organizations.

2. Physical activity and exercise

Physical activity and exercise play a crucial role in the prevention and control of NCDs and improvement of the quality of life. Thus, targets for physical activity and exercise include a wide range of issues, including special focus on the next generation and elderly, development of physically active habits, increase in the level of physical activity, and development of a supportive social environment where individuals can easily engage in physical activity and exercise.

In order to achieve these targets, references and guidelines of exercise for health promotion are revised and improved, and the government is engaged in organizing collaboration among private corporations and non-profit organizations.

3. Proper rest

Proper rest is an essential factor for a good quality of life. It is very important to get adequate sleep on a daily basis for optimal mental and physical functioning. Targets are primarily set to promote adequate sleep and to decrease the ratio of employees who work 60 hours or more per week. In order to achieve these targets, the government is engaged in improving guidelines on proper rest in relation to health promotion.

4. Alcohol drinking

Consumption of alcohol greater than recommended limits not only raises the risk of medical conditions such as certain life-style related diseases and depression, but it also has adverse effects on society, such as underage drinking and trauma associated with drunk driving. Targets are set to decrease the number of individuals who consume alcoholic beverages above the recommended level and to prevent children and pregnant women from drinking alcoholic beverages.

In order to achieve these targets, the government is engaged in raising awareness especially among children with accurate information regarding the alcohol drinking.

5. Tobacco smoking

Because tobacco smoking is the strongest yet preventable factor for NCD such as cancer, cardiovascular disease, diabetes and COPD as well as increment of infants with low birth weight, and because passive smoking also causes numerous diseases, it is important to prevent health issues caused by tobacco smoking. Targets are set to decrease the prevalence of smoking among adults and minors and passive smoking.

To achieve these targets, the national government is engaged in measures to prevent passive smoking, support of smoking cessation for smokers who want to quit smoking, measures to prevent start smoking among minors, education related to health effect of tobacco and smoking cessation, raising awareness and others.

6. Oral health

Oral health is crucial for proper food intake and articulation; therefore it contributes to good quality of life. Targets are set to prevent periodontal disease, dental caries, and tooth loss, and to maintain oral function so that long-lasting oral health is promoted.

In order to achieve these targets, the government is engaged in distributing information on oral health and devoting more efforts to programs like the "8020 campaign" (keep 20 or more teeth at the age of 80).

3. Basic Concepts for Prefecture- and Community-Based Health Promotion Plans

A) Setting targets and evaluation for health promotion plans

For the establishment of prefecture- and community-based health promotion plans, local governments need to decide which issues to work on and set targets to solve those issues based on information from various sources, including population statistics, medical and nursing care, data of specific health checkups, and existing social resources in the community. It is also necessary to periodically evaluate and revise the health promotion plan.

Prefecture-based health promotion plans are usually based on national targets. However, they should also focus on local issues so that targets are community oriented and are easily understood.

In addition, local governments should make efforts to examine health status and health disparities that may exist among population groups in the community.

B) Applications on development of health promotion plans

It is important to take the following items into consideration while developing health promotion plans:

① Prefectures play a central role in coordinating activities with organizations and individuals so that health promotion plans are implemented efficiently and effectively. Key participants may include health promotion program leaders, medical facilities, school nurses, occupational health directors, health-related corporations and their directors, and nonprofit organizations. Prefectures should take advantage of local associations that are composed of liaisons with such organizations and individuals so that each organization is assigned specific tasks based on its capabilities. This strategy would be more likely to result in better execution of the health promotion plans.

② At the prefecture level, the health promotion plan should exist in consonance with the following: medical plan that is defined in paragraph 1 in article 30-4 of the medical law (law item 80, 1948); prefectural medical cost adjustment plan that is defined in paragraph 1 in article 9 of the law for providing medical care for elderly (item 80, 1982); Prefectural Insured Long-Term Care Service Plan that is defined in paragraph 1 in article 118 of Long-Term Care Insurance Act-(Act No.123, 1997); prefectural cancer prevention plan that is defined in item 1 in article 11 of the Cancer Control Basic Act (paragraph 98, 2006) and other health promotion plans and associated plans; and Basic Matters Related to the Promotion of Dental and Oral Health that are defined in paragraph 1 in article 12 of the Law of Promotion of Dental and Oral Health (item 95, 2011).

In the prefectural health promotion plans, moreover, components addressing the efforts of prefectures to assist with the development of local-level health promotion plans and to conduct analysis on identifying and improving local health disparity issues should be included.

③ Public health centers should play a role in improving community health, providing professional and technical services, collecting and analyzing local health information to solve health disparity issues, and providing information to the residents and other related organizations, and assisting in the process of developing a local health promotion plan as needed.

④ For the development of health promotion plans in municipalities, local governments should work with the prefecture and public health centers to efficiently distribute tasks. As a medical insurer, municipalities should aim to establish integrated health programs such as a health promotion plan that includes specified health checkups that are defined in paragraph 1 in article 19 of the law for providing medical care for elderly. Simultaneously, municipalities should incorporate health promotion plans into other local health plans and Municipal Insured Long-Term Care Service Plan, which are defined in paragraph 1 in article 117 of Long-Term Care Insurance Act. Furthermore, municipalities should be aware that health promotion plans that are established based on article 19-2 and 17 of the Health Promotion Act (item 103, 2002) should be labeled as health promotion plans of them.

⑤ Prefectures, as well as municipalities, should periodically conduct evaluations and make modifications of health promotion plans according to national targets, while continuously being devoted to improving the health status of residents. In addition, programs provided by the prefectures or municipalities as well as the medical insurer in districts of prefectures and city, town and village, people related to school health , people related to occupational health, and private corporations should undergo evaluation in order to identify ongoing issues and ways to achieve targets and make constructive modifications for better outcomes.

⑥ Prefectures and municipalities should make certain that the voices of the residents are reflected in the development of targets and evaluation processes for better outcomes.

4. Basic Concepts for National Health and Nutrition Survey and Other Health-Promotion -Related Surveys and Researches

A) Utilization of surveys for health promotion measurement

National Health and Nutrition Survey should be conducted effectively so that relevant targets are evaluated for the purpose of improving the health status of the citizens of Japan. In addition, research to investigate the social environment associated with the improvement of lifestyle is also encouraged.

The national government, local governments, and independent policy corporations should conduct analysis and evaluations on health promotion plans according to a wide range of resources including the following: National Health and Nutrition Survey; Comprehensive Survey of Living Conditions; health examinations; health guidance; report from local cancer registry activities; various statistics on diseases and illnesses; and medical insurance claims. In doing so, confidentiality of participants should be primarily and strictly protected, and regulations including the law on protection of personal information (Act No. 57 of 2003), protection of personal information owned by administrative agencies (Act No. 58 of 2003), protection of personal information owned by independent policy corporations (item 59, 2003), protection of personal information owned by local governments, which is defined in paragraph 11 in article 11, and statistics law (item 53, 2007) should be followed. Also, it is important to conduct evidence-based health promotion measurements by utilizing results from such resources. Information collected from these surveys should be published.

National and local governments should be committed to utilizing Information and Communication Technology (ICT) because ICT enables individuals to obtain their own health information to enable pursuit of personal health as well as to collect and analyze nationwide health-related data for preventing life-style related diseases.

B) Encouragement of health promotion research

The nation, local governments, and independent policy corporations are engaged in conducting research associated with essential factors for health promotion, such as the social environment and lifestyle related diseases, and publishing accurate and adequate amount of information based on the research. Moreover, new research outcomes should be reflected in the revision of policies and also contribute to more effective implementation of health promotion programs.

5. Basic concepts for liaison and cooperation among individuals who work in health promotion

In order to provide high-quality health care services more effectively and continuously, various health screenings including specific health checkups and specific health guidance, cancer screening, and health checkups based on Industrial Safety and Health Act should be enforced. Moreover, when health-related programs are offered, relevant organizations should collaborate by forming a liaison or utilizing an existing one so that problems that may occur when people are relocated, switch jobs, or retire are more appropriately solved.

For example, it is more likely that screenings will be carried out efficiently and effectively if organizations that provide them circulate health information among themselves. Moreover, providing a number of screenings in one location would be more convenient for participants and would increase the participation rate. Developing a campaign to raise the participation rate for screenings, with the cooperation of organizers, would also be effective.

In addition to the facts with regard to liaison and cooperation that were mentioned above, the Health Promotion Act, paragraph 1 in article 9, describes the guidelines for health promotion program providers on conducting health screenings.

6. Basic concepts for improving health literacy on nutrition, physical activity, proper rest, alcohol drinking, tobacco smoking, and oral health

A) Basic concept

Because health promotion requires behavioral change along with awareness, it is necessary to assist citizens with health promotion activities and to provide adequate and appropriate information. In doing so, health information should be scientifically proven, easily understood, applicable to daily lifestyle, effective, and efficient. Moreover, health information should be provided to raise awareness that each component of the society such as households, preschools, schools, workplaces, and community play an important role in health promotion.

In terms of providing information regarding lifestyle, it is important to integrate numerous hannels including ICT, mass media, voluntary organizations, business sector, schools, medical insurers, and health counselors in order to reach the target population effectively.

B) National Health Promotion Month

For the purpose of promoting a national movement, National Health Promotion month takes place in September. National and local governments, corporations, and non-profit organizations hold different types of events and promotions primarily to raise awareness of health, but also to help further enhance the health status of individuals.

Furthermore, National Nutrition month is also held in September to produce a synergistic effect for the two movements.

Both National Health Promotion and Nutrition months encourage local communities to identify local health-related issues and to hold health campaigns that strive to include less interested residents. In addition to communities, national and local governments, corporations, and non-profit organizations also collaborate on a nationwide event to promote more focused and effective implementation.

7. Other Facts Regarding Health Promotion

A) Establishment of an effective structure to solve community health issues

Health centers of cities, towns, and villages should play a central role in formulating core health promotion liaisons, which may include medical insurers, medical institutions, pharmacies, community support centers, educational institutions, mass media, corporations, and voluntary organizations, in order to establish comprehensive action plans to accomplish relevant health targets based on each organization's health promotion plan. This would strengthen coordination among organizations, which would foster more productive and effective implementation of health promotion programs.

B) Encouragement of programs and liaisons constructively derived from various organizations

Corporations that support the concept of health promoting activities, such as good nutrition, physical activity, and proper rest, in their services and/or products, and non-governmental organizations and non-profit organizations that are devoted to working on health should continuously strive to contribute to the health of individuals, and should publicize appropriate information regarding their services and products. National and local governments should consider recognizing organizations that can show positive outcomes in the area of health promotion. Specifically, advocating for excellence by helping with public relations activities and offering incentives would increase the number of corporations who contribute to a healthy social environment. Furthermore, if corporations that provide health-related services partner with other organizations such as those that provide health screenings or diagnostic testing, more efficient and effective services could be provided. Combining such programs creates a health promotion market where high quality services are provided based on individual needs.

Health promotion includes a wide range of health-related issues. There are measures that are specifically mentioned by the Ministry of Health, Labor, and Welfare, which include *shoku-iku* (dietary and food education), maternal and prenatal health, mental health, nursing care prevention, occupational health, and health promotion programs provided by health guidance instructors and medical insurers. However, there are other essential measures such as school health, development of sidewalks and walking trails, exposure to the natural environment, participation in life-long sports by utilizing local resources such as comprehensive community sports clubs, and improvement of the health industry. All these measures are essential to health promotion and the relevant political fields and institutions should be devoted to improving such measures.

C) Professionals involved in health promotion

In local governments, physicians, dentists, pharmacists, nurses, public health nurses, midwives, registered dietitians, dietitians, and dental hygienists should be assigned to counsel and educate individuals on lifestyle issues like nutrition, physical activity, proper rest, mental health, alcohol drinking, tobacco smoking, and oral health, based on their profession.

National and local governments should also aim to increase the number and quality of public health nurses and registered dietitians, who implement health promotion plans, to assist the development of liaisons between physical health instructors and sports medicine doctors, to develop health-related voluntary organizations that are committed to working on lifestyle issues such as healthy diet, physical activity, and tobacco use, as well as to create a supportive structure for the development of self-help groups.

To accomplish this, the national government should develop a comprehensive plan, educate health professionals on how to work collaboratively across disciplines field, and provide seminars on professional development. Prefectures, cities, towns, and villages should be required to partner with associations of physicians, dentists, pharmacists, nurses, and dietitians in order to provide up-to-date science-based seminars not only for staff members of local governments, but also for local health professionals who are involved in the implementation of health promotion plans.

Community and school health staff should also collaborate to promote the health of individuals.

Appendix

Table 1

Targets for achieving extension of healthy life expectancy and decrease in health disparities

Indicators	Current data	Target
1. Extension of healthy life expectancy (average period of time spent without restrictions in daily activities)	Male 70.42 years Female 73.62 years (2010)	Increase healthy life expectancy more than the increase of life expectancy (2022)
2. Decrease in health disparities (differences among prefectures in average period of time spent without restrictions in daily activities)	Male 2.79 years Female 2.95 years (2010)	Decrease in differences among prefectures (2022)

Note: To accomplish (1) above, not only the "average period of time spent without restrictions," but "average period of time individuals consider themselves as healthy" should also be taken account.

Furthermore, to accomplish (2), each prefecture should aim to extend their healthy life expectancy with the longest healthy life expectancy among all prefectures being the target.

Table 2

Targets for the prevention of the development and worsening of major life-style related diseases

(1) Cancer

Indicators	Current data	Target
1. Decrease in age-adjusted mortality rate of cancer under age 75 (per 100,000)	84.3 (2010)	73.9 (2015)
2. Increase in participation rate of cancer screenings	Gastric cancer Male 34.3% Female 26.3% Lung cancer Male 24.9% Female 21.2% Colorectal cancer Male 27.4% Female 22.6% Cervical cancer Female 32.0% Breast cancer Female 31.4% (2010)	50% (40% for gastric, lung, and colorectal cancer) (2016)

Note: These rates represent individuals who are between 40 and 69 years old (cervical cancer is between 20 and 69 years old).

(2) Cardiovascular Disease

Indicators	Current data	Target
1. Decrease in adjusted mortality rate of cerebrovascular disease (CVD) and ischemic heart disease (IHD) (per 100,000)	CVD Male 49.5 Female 26.9 IHD Male 36.9 Female 15.3 (2010)	CVD Male 41.6 Female 24.7 IHD Male 31.8 Female 13.7 (2022)
2. Improvement of hypertension (decrease in systolic blood pressure)	Male 138 mmHg Female 133 mmHg (2010)	Male 134 mmHg Female 129 mmHg (2022)
3. Decrease in percentage of adults with dislypidemia	Those with total cholesterol over 240 mg/dl Male 13.8% Female 22.0% Those with LDL cholesterol over 160 mg/dl Male 8.3% Female 11.7% (2010)	Those with total cholesterol over 240mg/dl Male 10% Female 17% Those with LDL cholesterol over 160 mg/dl Male 6.2% Female 8.8% (2022)
4. Decrease definite and at-risk people with metabolic syndrome	14,000,000 (2008)	25% less than 2008 (2015)
5. Increase in participation rates of specific health checkups and specific health guidance	Specific health checkups 41.3% Specific health guidance 12.3% (2009)	Will be set based on the second term of medical cost adjustment plan starting in 2013 (2017)

(3) Diabetes

Indicators	Current data	Target
1. Decrease in complications (number of patients newly introduced dialysis due to diabetic nephropathy)	16,247 (2010)	15,000 (2022)
2. Increase in percentage of patients who continue treatment	63.7% (2010)	75% (2022)
3. Decrease in percentage of individuals with elevated blood glucose levels (HbA1c(NGSP)≧8.4%)	1.2% (2009)	1.0% (2022)
4. Prevent the increase in diabetic patients	8,900,000 (2007)	1,000,000 (2022)
5. Decrease in metabolic syndrome patients and those at risk	14,000,000 (2008)	25% less than 2008 (2015)
6. Increase in participation rates of specific health checkups and health guidance	Specific health checkups 41.3% Specific health guidance 12.3% (2009)	Will be set based on the second period of medical cost adjustment plan starting in 2013 (2017)

(4) COPD

Indicators	Current data	Target
1. Raise awareness of COPD	25% (2011)	80% (2022)

Table 3

Targets for maintenance and improvement in necessary functions to live social life

(1) Mental health

Indicators	Current data	Target
1. Decrease in suicide rate (per 100,000)	23.4 (2010)	Will be set based on modified suicide prevention plan
2. Decrease in percentage of individuals who suffer from mood disorders or anxiety disorders	10.4% (2010)	9.4% (2022)
3. Increase in percentage of occupational settings where interventions for mental health are available	33.6% (2007)	100% (2020)
4. Increase in percentage of pediatricians and child psychiatrists per 100,000 children	Pediatricians: 94.4 (2010) Child psychiatrists: 10.6 (2009)	To increase (2014)

(2) Children's health

Indicators	Current data	Target
1. Increase in percentage of children who maintain healthy lifestyle (nutrition, healthy diet, physical activity)		
A. Increase in percentage of children who eat three meals a day	5th grade 89.4% (2010)	To reach 100% (2022)
B. Increase in percentage of children who exercise regularly	(Ref) Three times a week or more 5th grade (2010) Male 61.5% Female 35.9%	To increase (2022)
2. Increase in percentage of children with proper weight		
A. Decrease in percentage of low birth weight infants	9.6% (2010)	To decrease (2014)
C. Decrease in percentage of children who tend to be obese	5th graders who are overweight or obese (2011) Male 4.60% Female 3.39%	To decrease (2014)

(3) Health of elderly

Indicators	Current data	Target
1. Restraint of the increase in Long-Term Care insurance service users	4,520,000 (2012)	6,570,000 (2025)
2. Increase in identification rate of high-risk elderly with low cognitive function	0.9% (2009)	10% (2022)
3. Increase in percentage of individuals who know about locomotive syndrome	(Ref.) 17.3% (2012)	80% (2022)
4. Restraint of the increase in undernourished elderly	17.4% (2010)	22% (2022)
5. Decrease number of elderly with back or foot pain (per 1,000)	Male 218 Female 291 (2010)	Male 200 Female 260 (2022)
6. Participation in society (employed or in community activities)	(Reference) Those who are involved in any form of community activities Male 64.0% Female 55.1% (2008)	80% (2022)

Note: the target for 1. is set based on the results from the Outline basic and integrated Reform Plan for Social Welfare and Tax

Table 4

Targets for establishing a social environment where health is supported and protected

Indicators	Current data	Target
1. Strengthen community ties	(Ref.) "There is a strong bond between myself and community." 45.7% (2007)	65% (2022)
2. Increase in percentage of individuals who are involved in health promotion activities	(Ref.) Health or medical service volunteer 3.0% (2008)	25% (2022)
3. Increase in number of corporations that deal with health promotion and educational activities	420 (2012)	3,000 (2022)
4.Increase in number of organizations that offer accessible opportunities for health promotion support or counseling	(Reference) Reported by the organizations 7,134 (2012)	15,000 (2022)
5. Increase in number of local governments that make efforts to solve health disparity issues (number of prefectures that identify problems and have intervention programs for those in need)	11 (2012)	47 (2022)

Table 5

Targets for improvement of social environment and lifestyle factors such as nutrition, healthy diet, physical activity, exercise, proper rest, alcohol drinking, tobacco smoking, and oral health

(1) Nutrition and healthy diet

Indicators	Current data	Target
1. Increase in percentage of individuals with proper weight (Decreased percentage of obese individuals [BMI 25 and more] and underweight individuals [BMI less than 18.5])	Obese males in their 20's to 60's 31.2% Obese females in their 40's to 60's 22.2%	Obese males in their 20's to 60's 28% Obese females in their 40's to 60's 19%

	Underweight females 20-29 years old 29.0% (2010)	Underweight females 20-29 years old 20% (2022)
2. Increase in percentage of individuals who consume appropriate quality and quantity of food		
A. Increase in percentage of individuals who eat balanced diet with staple food, main dish and side dish more than twice a day	68.1% (2011)	80% (2022)
B. Decrease in salt intake	10.6 g (2010)	8 g (2022)
C. Increase in consumption of vegetables and fruits	Mean daily intake of vegetables 282g Individuals who consume less than 100 g of fruits per day 61.4% (2010)	Mean daily intake of vegetables 350g Individuals who consume less than 100 g of fruits per day 30% (2022)
3. Increase in dining with family regularly (decrease in percentage of children who eat alone)	Breakfast School child Elementary 15.3% School student Junior high 33.7% Dinner School child Elementary 2.2% School student Junior high 6.0% (2010)	To decrease (2022)
4. Increase in number of corporations in food industry that supply food product low in salt and fat	Food corporations: 14 corporations Restaurants 17,284 locations (2012)	Food corporations: 100 corporations Restaurants: 30,000 locations (2022)
5. Increase in percentage of specific food service facilities that plan, cook, and evaluate and improve nutritional content of the menu based on the needs of the clients	(Ref.) Facilities with registered dietitians or dietitians 70.5% (2010)	80% (2022)

(2) Physical activity and exercise

Indicators	Current data	Target
1. Increase in daily number of steps	20-64 years old Male 7,841 steps Female 6,883 steps Over 65 years old Male 5,628 steps Female 4,584 steps (2010)	20-64 years old Male 9,000 steps Female 8,500 steps Over 65 years old Male 7,000 steps Female 6,000 steps (2022)
2. Increase in percentage of individuals who regularly exercise	20-64 years old Male 26.3% Female 22.9%	20-64 years old Male 36% Female 33%
	Over 65 years old Male 47.6% Female 37.6% (2010)	Over 65 years old Male 58% Female 48% (2022)
3. Increase in number of local governments that offer community development and organizations to promote physical activity	17 prefectures (2012)	47 prefectures (2022)

(3) Proper rest

Indicators	Current data	Target
1. Decrease in percentage of individuals who do not get adequate rest	18.4% (2009)	15% (2022)
2. Decrease in percentage of employees who work 60 hours or more per week	9.3% (2011)	5.0% (2020)

(4) Alcohol drinking

Indicators	Current data	Target
1. Decrease in percentage of individuals who consume alcohol over recommended limits (male > 40 g, female > 20 g per day)	Male 15.3% Female 7.5% (2010)	Male 13% Female 6.4% (2022)
2. Eradication of underage drinking	Third grade of junior high school Male 10.5% Female 11.7% Third grade of high school Male 21.7% Female 19.9% (2010)	0% (2022)
3. Eradication of alcohol consumption among pregnant women	8.7% (2010)	0% (2014)

(5) Tobacco smoking

Indicators	Current data	Target
1. Decrease in percentage of adult smoking rate (quit smoking among smokers who want to quit smoking)	19.5% (2010)	12% (2022)
2. Eradication of smoking among minors	First grade of junior high school Male 1.6% Female 0.9% Third grade of high school Male 8.6% Female 3.8% (2010)	0% (2022)
3. Eradication of smoking among pregnant women	5.0% (2010)	0% (2014)

4. Decrease in percentage of facilities where exposure to secondhand smoke is present	Governmental institutions 16.9% Health institutions 13.3% (2008) Workplace 64% (2011) Household 10.7% Restaurants 50.1% (2010)	Governmental institutions 0% Health institutions 0% (2022) Workplace--no secondhand smoke (2020) Household 3% Restaurants 15% (2022)

(6) Oral health

Indicators	Current data	Target
1. Maintenance and improvement of oral function (increase in percentage of individuals over the age 60 with good mastication)	73.4% (2009)	80% (2022)
2. Prevention of tooth loss		
A. Increase in percentage of 80-year-old individuals with over 20 teeth remaining	25% (2005)	50% (2022)
B. Increase in percentage of 60-year-old individuals with over 24 teeth remaining	60.2% (2005)	70% (2022)
C. Increase in percentage of 40-year-old individuals with all teeth remaining	54.1% (2005)	75% (2022)
3. Decrease in percentage of individuals with periodontal disease		
A. Decrease in percentage of individuals in 20s with gingivitis	31.7% (2009)	25% (2022)
B. Decrease in percentage of individuals in 40s with periodontitis	37.3% (2005)	25% (2022)
C. Decrease in percentage of individuals in 60s with periodontitis	54.7% (2005)	45% (2022)
4. Increase in number of children without dental caries		
A. Increase in number of prefectures where over 80% of 3-year-old children have no dental caries	6 prefectures (2009)	23 prefectures (2022)
B. Increase in number of prefectures where 12-year-old children have less than 1 cavity	7 prefectures (2011)	28 prefectures (2022)
5. Increase in percentage of individuals who participated in dental check-up in the past 1 year	34.1% (2009)	65% (2022)

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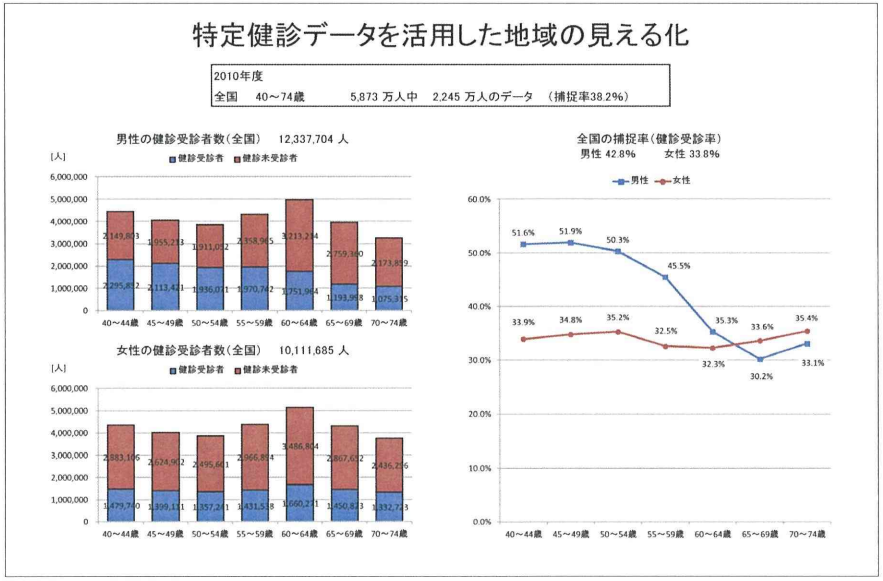
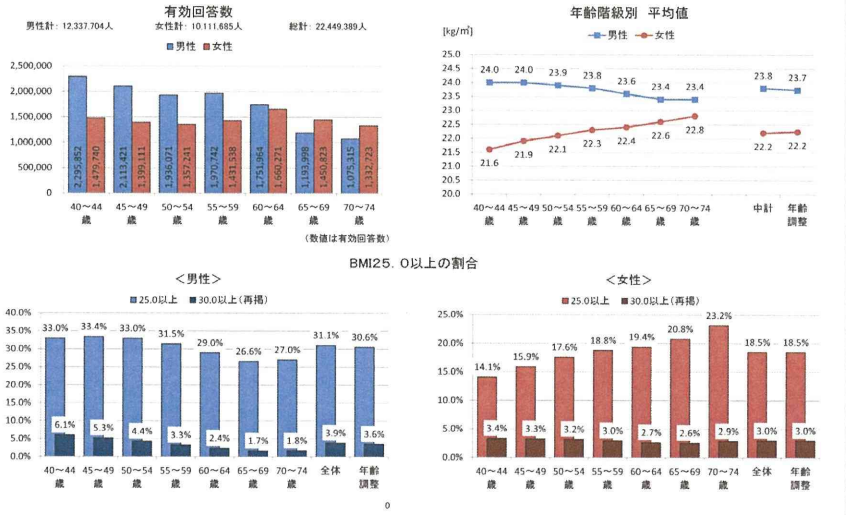
特定健診データ（全国版） PPT

地域の状況を的確に知るためには、全国や他地域との比較、過去からの推移の検討が必要です。本研究班では、特定健診データ（厚生労働省「特定健康診査・特定保健指導の実施結果に関するデータ」http://www.mhlw.go.jp/bunya/shakaihosho/iryuouseido01/info02a-2.html）をもとに、簡単に都道府県別グラフを作成できるソフト（付属DVDに収録）を開発しました。

各検査値について、有効回答数、年齢階級別平均値、有所見率を"見える化"しています。
年齢調整有所見率についてマップ表示も可能です。
以下（P.81～95）は、全国データのグラフ一覧です。ラベル表示には全国の値が表示されていますので、比較対照の際にご活用ください。

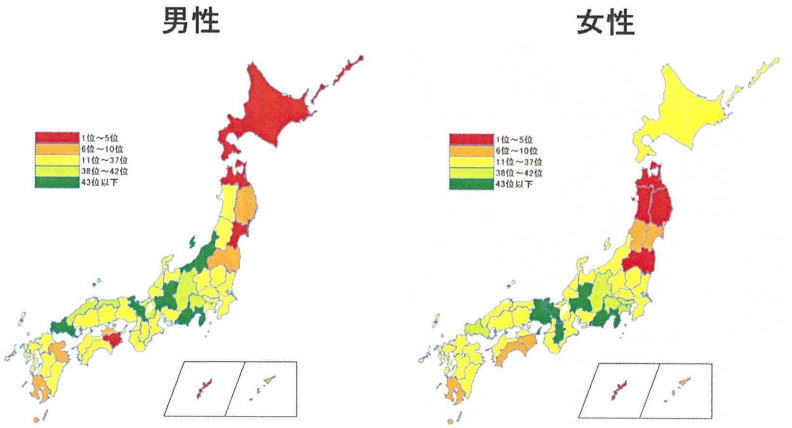


全国のBMI（肥満）の状況（2010年度）

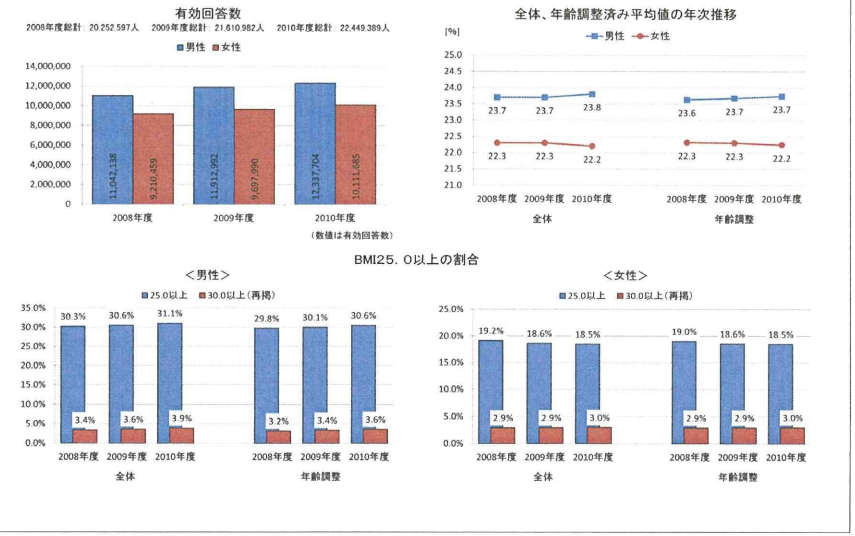


肥満者（BMI25 以上）の割合

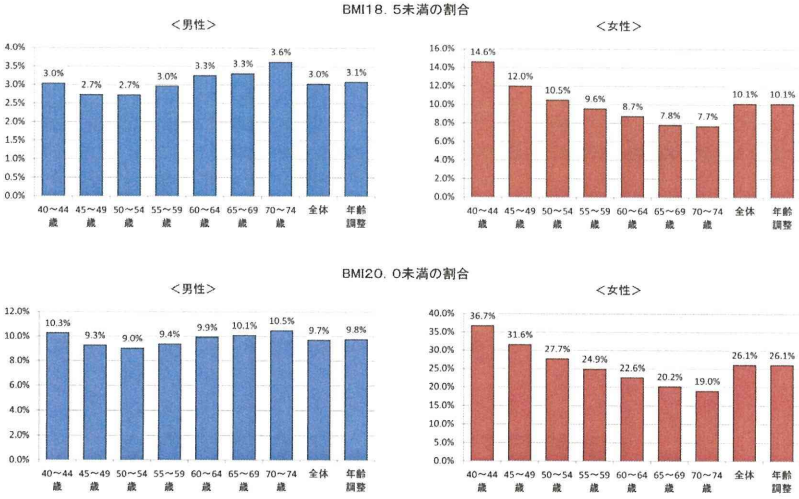
（男女別年齢調整済み） 2010年



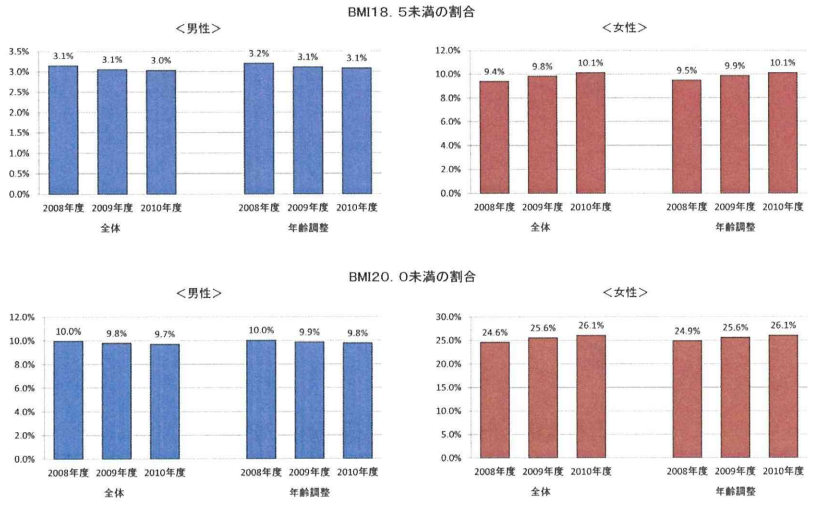
全国のBMI（肥満）の状況（年次推移）



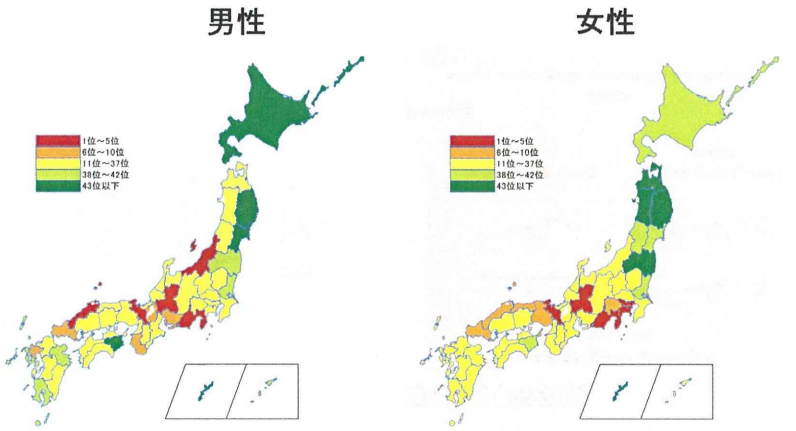
全国のBMI（やせ）の状況（2010年度）



全国のBMI（やせ）の状況（年次推移）

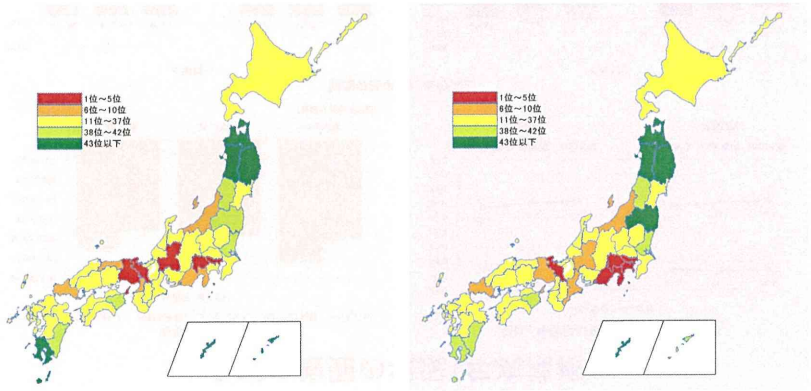


やせ傾向（BMI20 未満）の高齢者（70～74歳）

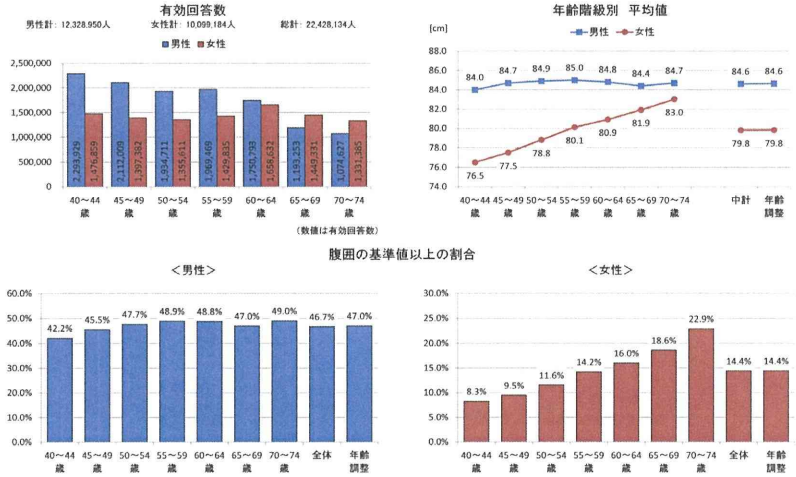


女性のやせ（BMI 18.5 未満）の割合

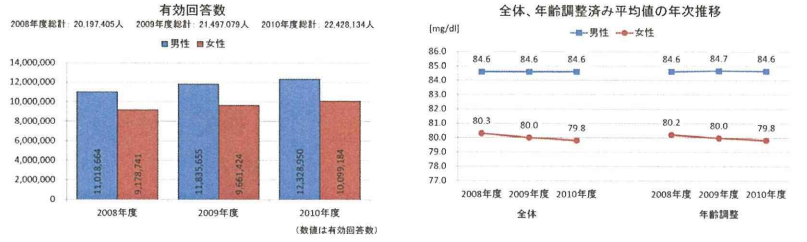
（年齢調整、40～44歳） 2010年



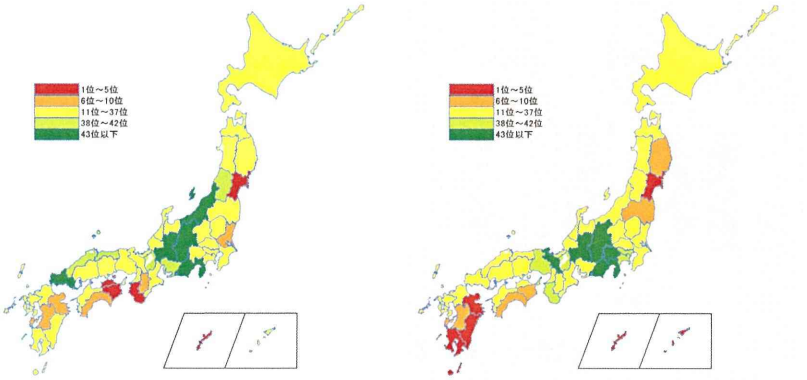
全国の腹囲の状況（2010年度）



全国の腹囲の状況（年次推移）

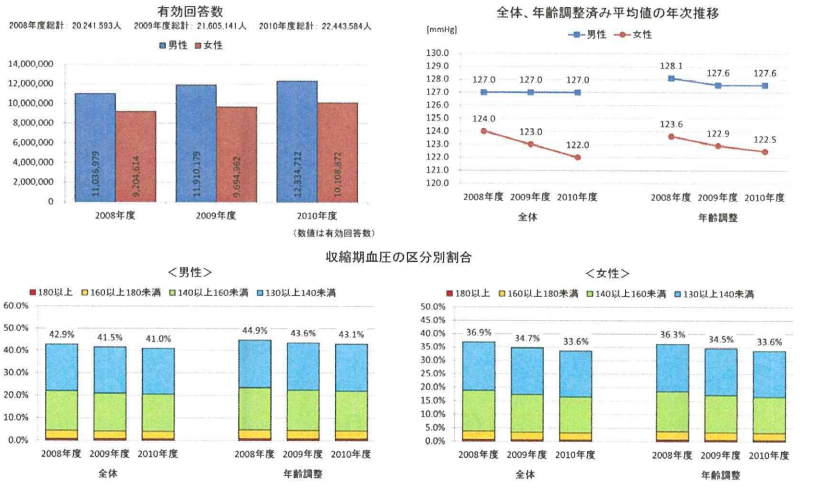


腹囲が基準値以上の割合
（男女別年齢調整済み） 2010年



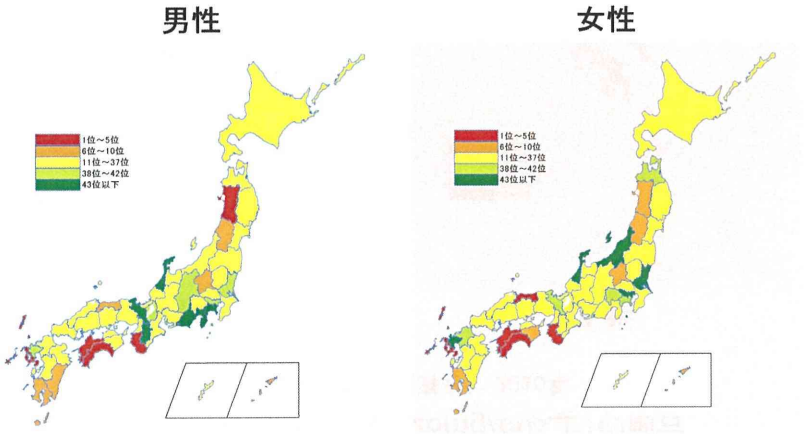
全国の収縮期血圧の状況（2010年度）

全国の収縮期血圧の状況（年次推移）

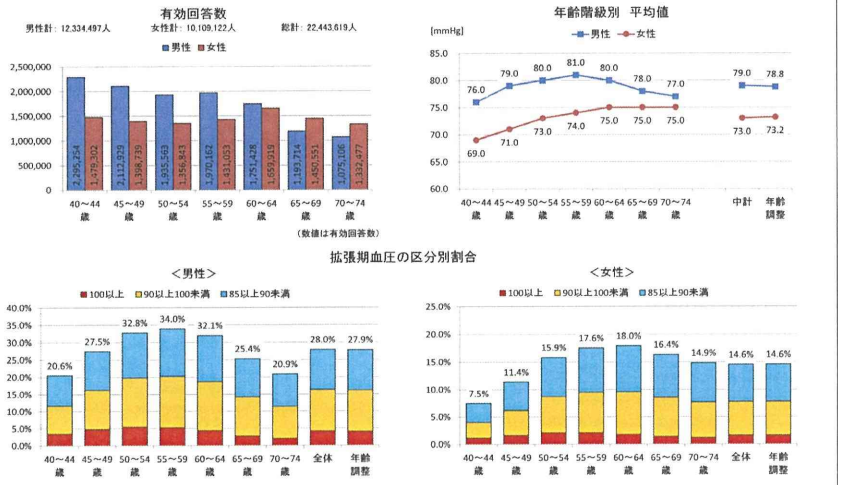


血圧高値（収縮期血圧140mmHg以上）の割合

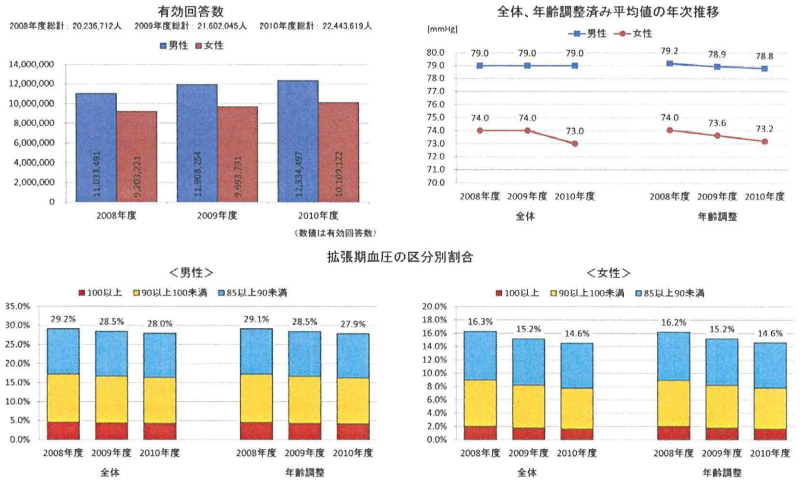
（男女別年齢調整済み） 2010年



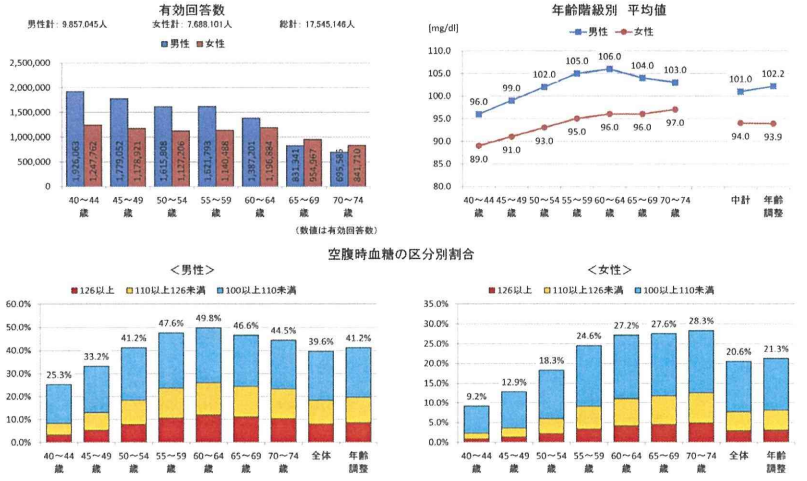
全国の拡張期血圧の状況（2010年度）



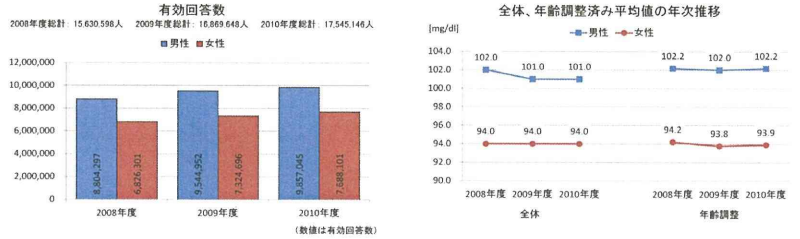
全国の拡張期血圧の状況（年次推移）

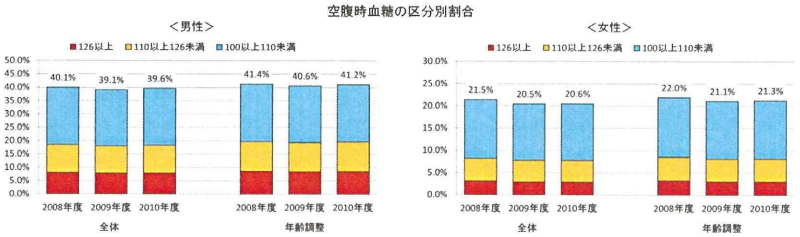


全国の空腹時血糖の状況（2010年度）



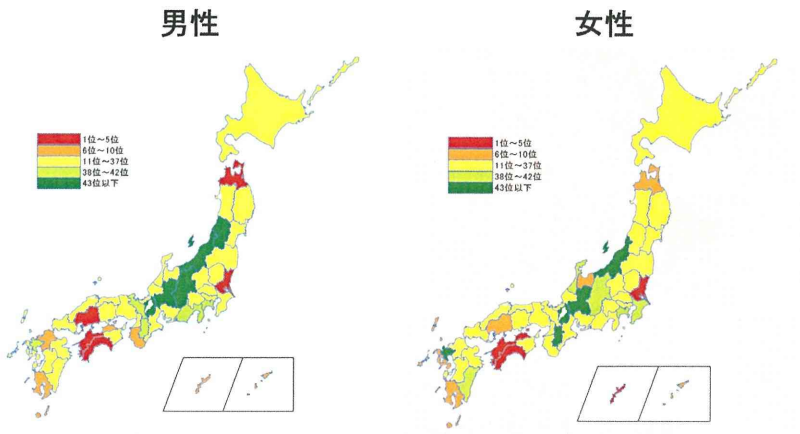
全国の空腹時血糖の状況（年次推移）



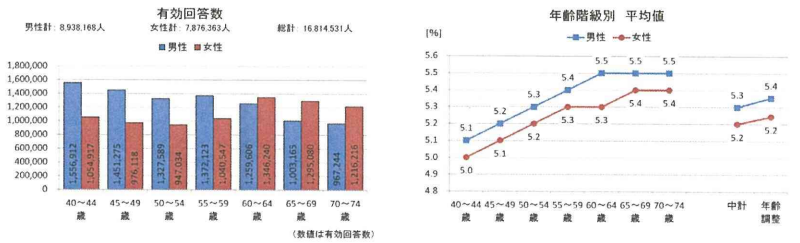


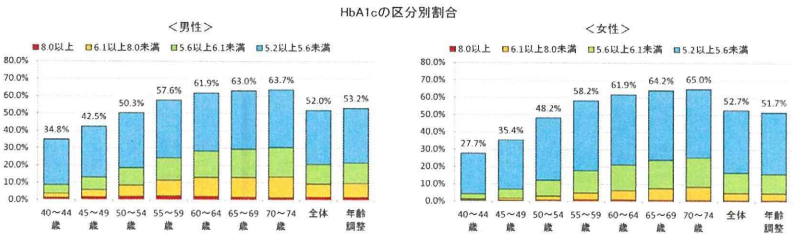
血糖高値（空腹時血糖126mg/dl以上）の割合

（男女別年齢調整済み） 2010年

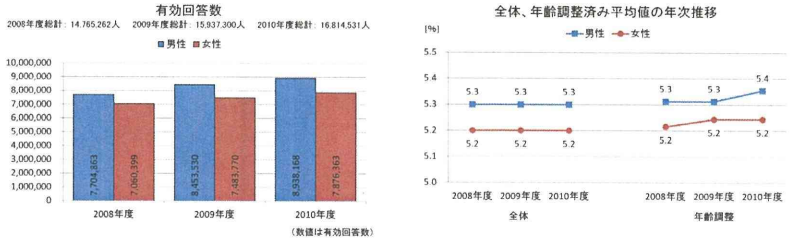


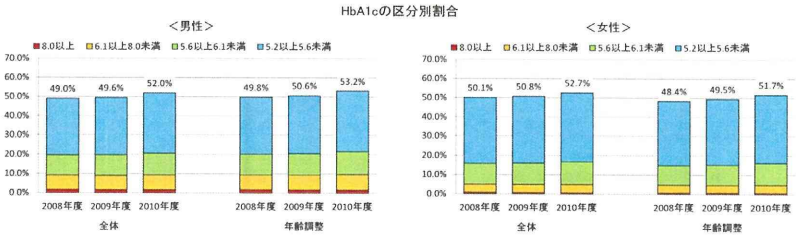
全国のHbA1c(JDS)の状況（2010年度）



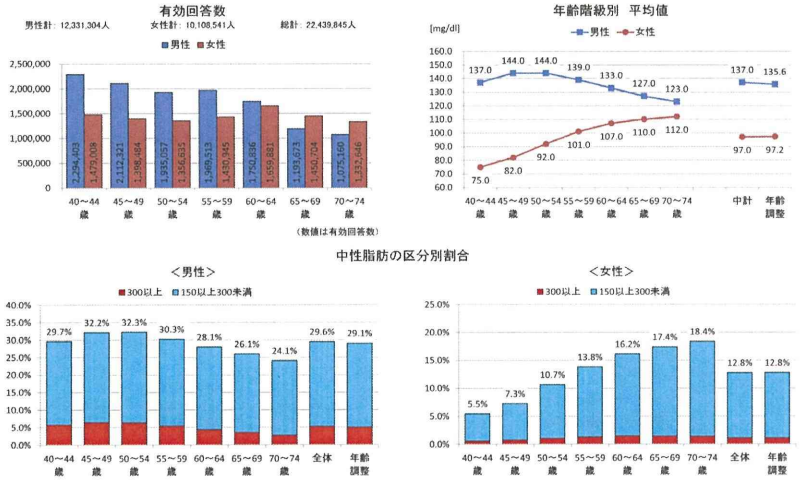


全国のHbA1c(JDS)の状況（年次推移）

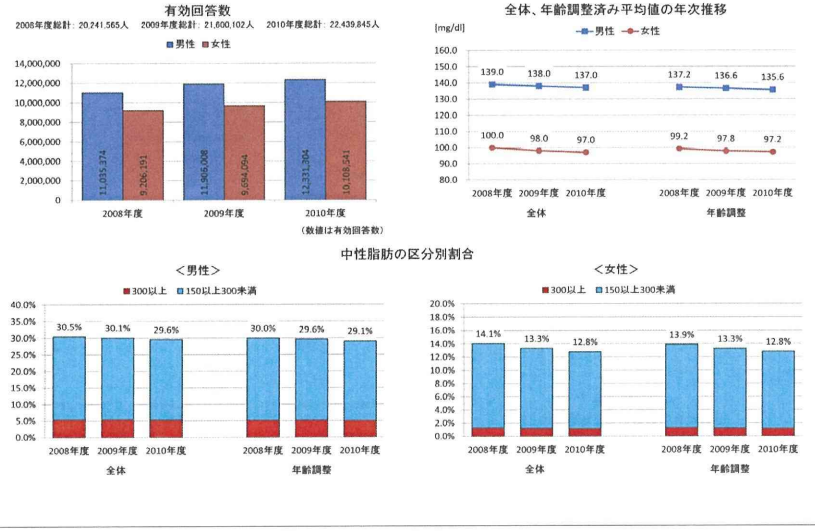




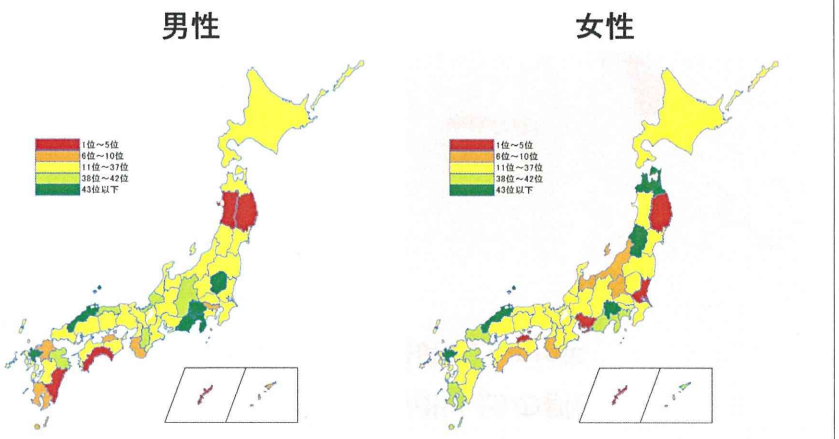
全国の中性脂肪の状況（2010年度）



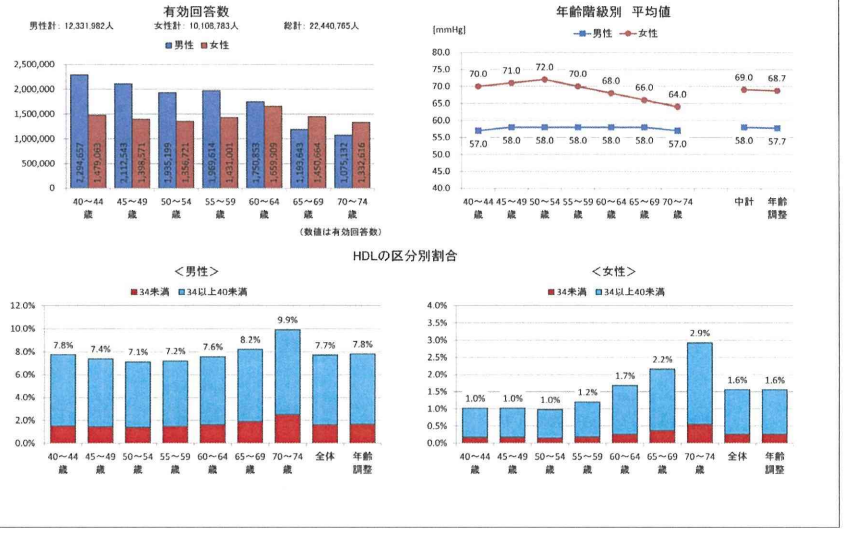
全国の中性脂肪の状況（年次推移）



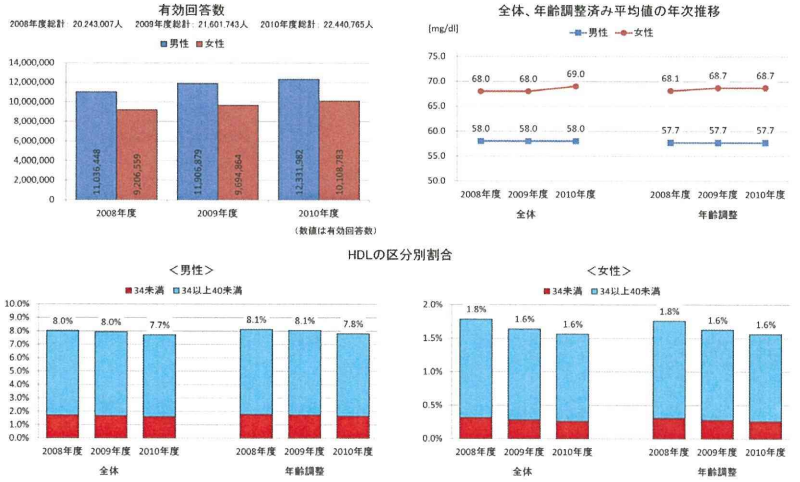
中性脂肪高値（300mg/dl以上）の割合
（男女別年齢調整済み） 2010年



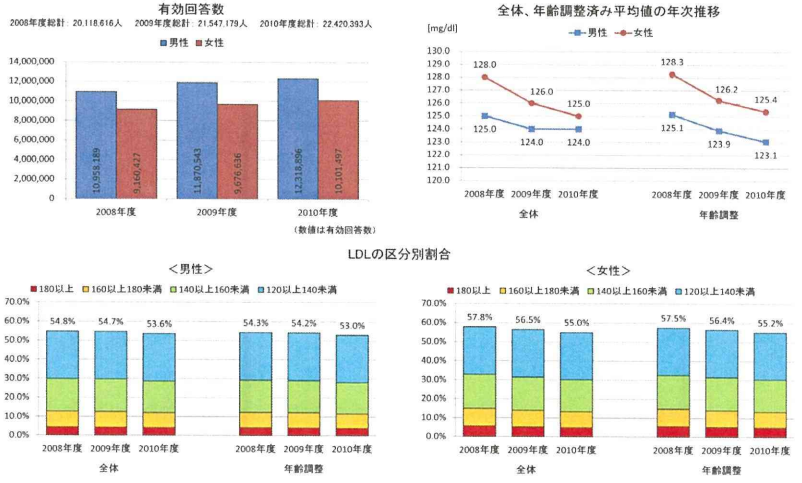
全国のHDLの状況（2010年度）



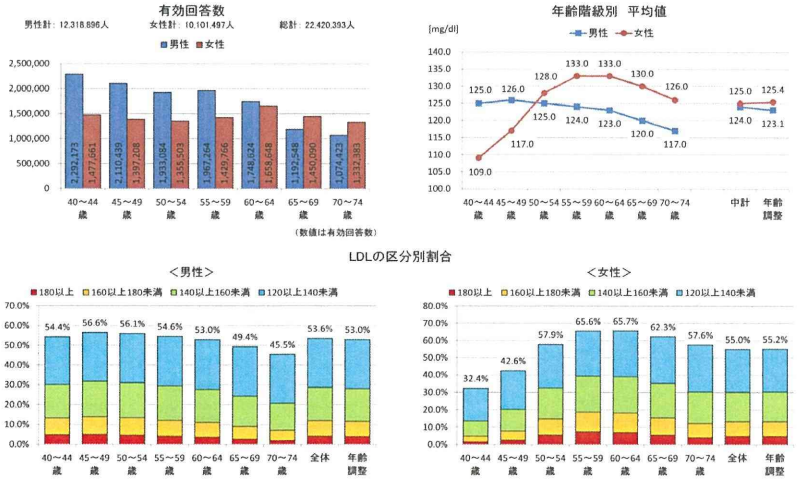
全国のHDLの状況（年次推移）



全国のLDLの状況（年次推移）

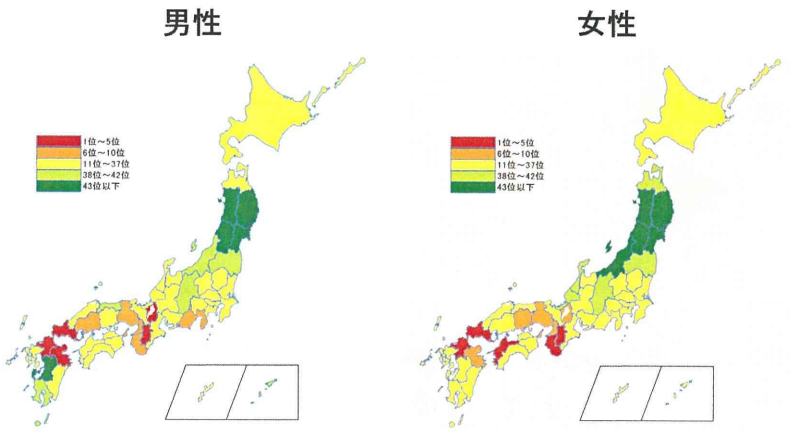


全国のLDLの状況（2010年度）



LDL高値（160mg/dl以上）の割合

（男女別年齢調整済み） 2010年



平成 24 年度厚生労働科学研究費補助金（循環器疾患・糖尿病等生活習慣病対策総合研究事業）
「生活習慣病予防活動・疾病管理による健康指標に及ぼす影響と医療費適正化効果に関する研究」
（追加研究）

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愛知県健康福祉部健康担当局健康対策課
大阪府健康医療部 保健医療室 健康づくり課

DVD 資料提供　厚生労働省健康局 がん対策・健康増進課
厚生労働科学研究費補助金 循環器疾患・糖尿病等生活習慣病対策総合研究事業 研究代表者

健康日本 21（第二次）地方計画推進のために
地方自治体による効果的な健康施策展開のための既存データ（特定健診データ等）活用の手引き

発行：2013 年 3 月

Ⅵ. 研究成果の刊行に関する一覧 （平成24年度）

研究班刊行物

○地方自治体による効果的な健康施策展開のための既存データ活用の手引き（ｐ128 ～ 175）

原著

発表者氏名	論文タイトル名	発表雑誌名
畑中陽子、玉腰暁子、津下一代	20歳代男性のBMIならびにその後の体重原価が40歳代における高血圧・糖尿病の有病率および医療費に及ぼす影響	産業衛生雑誌 54 (4) 141-149, 2012
林芙美，武見ゆかり，西村節子，奥山恵，中村正和	特定保健指導の初回面接直後における職域男性の減量への取り組みに対する態度と体重減少との関係	栄養学雑誌. 70(5), 20-30, 2012
Zhen-Bo Cao, A Sasaki, T Oh, N Miyatake, K Tsushita, M Higuchi, S Sasaki and I Tabata	Association between dietary intake of micro-nutrients and cardiorespiratory fitness in Japanese men	Journal of Nutritional Science, (2012), 1, e12, 1-6
K Kotani, A Hazama, A Hagimoto, K Saika, M Shigeta, K Katanoda and M Nakamura	Adiponectin and Smoking Status: A Systematic Review	J Atherosclerosis and Thrombosis 19(9) 787-794, 2012

総説、著作等

著者名	題名	雑誌名	巻・ページ	発行年	発行元
津下一代	第２次健康日本２１の方向性と社会・生活環境	保健師ジャーナル	68 (8) 658-666	2012	医学書院
津下一代	第二期の特定健診・特定保健指導の在り方について	人間ドック	27：535-546	2012	日本人間ドック学会
津下一代	特定保健指導のエビデンス	月刊 糖尿病	4(12):83-93	2012	医学出版
津下一代	どうなる？ 第二期の特定健診・特定保健指導	へるすあっぷ	337：15-17	2012	法研
津下一代	地域における多様な分野の連携による生活習慣病の発症及び重症化予防	保健の科学	54(10):694-698	2012	杏林書院
辻一郎、津下一代	（対談）健康日本２１（第２次）が目指すもの	月刊 地域保健	43 (11) 24-41	2012	東京法規出版
津下一代	メタボリックシンドローム－特定健診・特定保健指導	最新医学	68(1) 90-97	2013	最新医学社
津下一代	特定健康診査・特定保健指導―5年間の評価と見直し	臨床栄養	122 (1) 65-70	2013	医歯薬出版

津下一代	健康づくりに貢献するために-政策としての健康づくりと健康日本２１（第２次）の意義	臨床栄養	122（3）281-286	2013	医歯薬出版
津下一代	糖尿病予防と生活習慣病対策～医療保険者としてどう取り組むか	健康保険	1月号 32-39	2013	健康保険組合連合会
津下一代	運動の継続因子・阻害因子を検証する―特定健診・保健指導からみた運動の継続因子・阻害因子.	臨床スポーツ医学	In press		
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産業衛生学雑誌

20歳代男性のBMIならびにその後の体重変化が40歳代における高血圧・糖尿病有病率および医療費に及ぼす影響

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抄録：20歳代男性のBMIならびにその後の体重変化が40歳代における高血圧・糖尿病有病率および医療費に及ぼす影響：畑中陽子ほか．デンソー健康保険組合―目的：20歳代のBMIやその後の体重変化が，40歳代での高血圧・糖尿病の服薬率・有病率や医療費に及ぼす影響を検討する．**対象と方法：**1989年時点で20歳代の男性10,125人を対象とし，BMI区分別，およびBMI区分と20年間の体重増減の組み合わせ別に40歳代の高血圧・糖尿病の服薬率・有病率と医療費について分析した．BMI区分別の服薬率，有病率，受療率をロジスティック回帰分析により，平均医療費を共分散分析により，1989年時点の年齢，ならびに20年間の体重変化の程度を調整して検討した．**結果：**20歳代から40歳代にかけて20年間で平均7 kgの体重増加を認めた．40歳代の高血圧服薬率・有病率，糖尿病服薬率・有病率のいずれも20歳代のBMI区分が高くなるほど有意に上昇し，BMI 18.5–19.9の群に比べ25.0以上の群では高血圧有病率は6.81倍，糖尿病有病率は16.62倍であった．40歳代の外来医療費，総医療費も同様に20歳代のBMI区分が高くなるほど高額となり，1人当たり平均総医療費はBMI 18.5未満の群の818.7円から25.0以上群の5,311.5円に増加した．さらに，20歳代のBMIが20.0–21.9，22.0–24.9であっても20年間に体重が10 kg以上増加した場合には40歳代の高血圧・糖尿病のリスクが増加した．**考察：**20歳代のBMIが高い区分ほど40歳時の高血圧や糖尿病の有病率は上昇し，同様に医療費も増加した．20歳代でBMI 25.0未満の場合でも，20歳代のBMI区分とその後の体重増加に依存して有病率が高くなった．終身雇用を基本とした日本企業における保健活動では，若年期からの肥満対策はもちろん，肥満でない人も含めて体重コントロールができるよう支援することが重要である．
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キーワード：BMI, Diabetes, Hypertension, Medical costs, Obesity

I. はじめに

1970年代頃より生活習慣や環境の変化に伴って，日本人男性の肥満者の増加が指摘されている[1,2]．肥満は高血圧や脂質異常症，糖尿病などの発症リスクとなるだけでなく，その医療費は適正体重者と比較して高額[3–8]であることから，肥満対策は産業保健における健康課題であるとともに，医療保険者としても重要な課題と認識されている．

勤労者を対象とした国内の先行研究では，日高らによる医療費に関する研究[9,10]や岡田による高血圧発症に関する研究など，10年間の長期追跡についていくつかの報告[11,12]があるが，20年間の追跡研究[13,14]はいまだ少ない．これらの追跡研究によれば，肥満およびBMIの増加は将来の高血圧や糖尿病の発症を予測する因子であり，血圧やBMIなどが高い者ほど10年後の医療費は高額であったとされている．一方，日本人男性における20年後のBMI変化と医療費の関連については報告されていない．

現在，医療保険者に義務化されている特定健康診査，特定保健指導では，メタボリックシンドローム（以下Mets）を予防，改善することにより，糖尿病や高血圧などの生活習慣病の悪化や重症化を未然に防ぐとともに，将来の医療費増加を抑制することを目的としてい

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