

Recommendation

To Understand the Present Conditions of Social Disparities in Health in  
Japan and Work towards Improvements



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Science Council of Japan

The Joint Subcommittee on Public Health Science of the Committee on Basic  
Medicine and the Committee on Health/Human Life Science

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## Summary

### 1 Background of Preparation

People's health inequalities because of socioeconomic factors such as income, academic background, and occupations (so-called social disparities in health) have been a major issue in public health throughout history. In recent years, it has been pointed out that income disparities are expanding in Japan as well, and there have been concerns about widening health inequalities due to socioeconomic conditions. It is necessary to understand issues of current social disparities in health in this country, and to comprehensively reexamine our healthcare and welfare from the perspectives on such disparities, as well as to enhance the academic base for understanding and improving the present conditions of the disparities. Therefore, this document overviews the current state of research on social disparities in health in Japan, marshals issues for understanding and further improving the present conditions of these disparities, and recommends measures to be taken against the issues.

### 2 Present Conditions and Problems

Concerns about social disparities in health today and interest in the problems of such disparities can be broadly classified into three as follows: First, against the backdrop of current increase in the poverty group and households on benefits, concerns that health problems accumulate in the low income group, and that the minimum basic healthcare and welfare services are getting less accessible to such groups; Second, concerns that disparities in health problems exist depending on classes through the entire social pyramid, not limited to the low income and poverty groups, and that such disparities are widening; Third, concerns that health problems accumulate among the socially disadvantaged (i.e., unemployed, disabled, or homeless persons, and foreign laborers), and healthcare and welfare services are less likely to be provided sufficiently.

In the world, World Health Organization (WHO) among relevant organizations compiled a final report by the Commission on Social Determinants of Health in 2008, calling for the necessity of taking global actions to improve health inequalities due to socioeconomic factors such as poverty. Measures against social disparities in health are also key issues internationally.

Research results on such disparities have been accumulated in Japan as well. It has been reported that lower income and education lead to a lower subjective health degree, and higher chronic disease and mortality rates. There are reports, although the numbers are small, that household poverty affects both childhood and adult health. The blue-collar class including physical laborers and machine operators, and non-regular employees has poorer mental and physical health as compared with managerial or professional workers and regular employees, respectively. Unemployed persons are likely to have chronic diseases and a higher suicide rate. Among the elderly persons, there are disparities observed in mortality rate, the state requiring nursing care, mental health, and social activities, depending on their socioeconomic conditions. Although Japan is thought to have relatively small social disparities in terms of access to medical care, some reports show that the low income group and non-regular employees refrain from seeking medical attention or the consultation rate is curbed.

Therefore, it is thought that health problems actually accumulate in the low income and poverty groups, and health inequalities exist throughout the social pyramid. Some socially disadvantaged persons including non-regular employees may have problems regarding access to medical care. In order to improve such social disparities in health, it is necessary to start wherever possible and take action. Meanwhile, however, research

results on social disparities in health are limited in terms of numbers, research quality, and expansion of research area, and the complete picture of these disparities in Japan is still not clear. Promotion of further research is needed on the disparities in this country. Also, comprehensive and continuous monitoring of such disparities is also required.

In light of the above, there are five issues related to social disparities in health in Japan as follows:

- (1) Absence of perspectives on social disparities in health in healthcare and welfare policies and activities
- (2) Lack of systems and organizations which monitor social disparities in health and draw up measures
- (3) Absence of perspectives on social disparities in health in nurturing healthcare personnel
- (4) Absence of public participation in policy planning for redressing social disparities in health
- (5) Lack of research related to social disparities in health

### **3 Content of Recommendation**

#### **(1) To consider social disparities in health in healthcare and welfare policies**

It is recommended that the government should clarify perspectives on social disparities in health and response to these disparities in promoting the national healthcare and welfare activities. The strategy for the promotion of health and the policy of occupational safety and health administration which the Ministry of Health, Labor and Welfare has been pursuing should specify perspectives on and response to such disparities. Based on these, it should be promoted that approaches to such disparities be incorporated in regional health plans of local governments and occupational safety and health activities of businesses for implementation. Academic societies are expected to cooperate in and be support on these points from their professional standpoints.

#### **(2) To organize systems for monitoring social disparities in health and drawing up measures**

It is recommended that the Cabinet Office and the Ministry of Health, Labor and Welfare should conduct chronological monitoring of social disparities in health through analysis of existing government statistics or new surveys, and actively disclose the results to the public. Also, an organization responsible for linking the monitoring results to policy planning across ministries and agencies to improve the disparities should be established. Furthermore, it is recommended to develop and popularize methodologies for health impact assessment, to nurture human resources, to accumulate experiences, to actively utilize the assessment, and to seek to spread the assessment as administrative tools for improvement of such disparities.

#### **(3) To include perspectives on social disparities in health in nurturing human resources for healthcare and welfare**

It is recommended that social disparities in health should be included in training courses and lifelong education curriculums for healthcare and welfare professionals. The Ministry of Health, Labor and Welfare should incorporate perspectives on such disparities in the training course curriculums for healthcare and welfare professionals. In addition, it is also deemed important that the Ministry of Education, Culture, Sports, Science and Technology further promotes opening professional graduate schools for public health specialists, and incorporates education related to such disparities into the curriculums, in conjunction with further promotion of related research, so that a research base capable of responding to such disparities can be built, and highly-specialized personnel be developed. It is expected that educational institutions for healthcare and welfare professionals

cooperate in this effort, and academic societies raise their members' awareness about the disparities through lifelong education and their academic general meetings.

**(4) To promote efforts to redress social disparities in health, driven by public participation**

It is recommended that the government, i.e., the Cabinet Office, should set up round-table meetings across ministries and agencies to discuss the disparities, consisting of those involved, such as the public, the management, representatives of labor, healthcare and welfare experts, and representatives of relevant ministries and agencies, which the national policy making should be based on. Also, opportunities should be created to provide accurate and scientific information to the public through civic participation symposiums and forums, and the like. Both academic societies and private organizations are expected to cooperate in such efforts from their respective positions.

**(5) Promotion of research related to social disparities in health**

It is recommended that interdisciplinary research on social disparities in health should be promoted more than ever. Academic societies are expected to encourage interdisciplinary research on such disparities through mutual collaboration.

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## **1 Introduction**

### **(1) The growing interest in social disparities in health and the background**

People's health inequalities because of socioeconomic factors such as income, academic background, and occupations (the so-called social disparities in health) have been a major issue in public health throughout history. In recent years, income disparities have been expanding in Japan [1]. It has been pointed out that parents' occupations and social classes are more likely to continue with their children as well, and equal opportunities for education and occupations which individuals seek are lost [2]. Under these circumstances, concerns have been spreading about widening health inequalities due to socioeconomic conditions such as income. Such concerns over social disparities in health have been spreading not only among healthcare personnel including public health experts but also among the public [3].

The statistics in the mid-2000s show that the relative poverty rate of Japan was 14.9%, the fourth highest after Mexico (18.4%), Turkey (17.5%), and the U.S. (17.1%) among OECD member countries (Figure 1). Japan's relative poverty rate rose from the 1980s to the 2000s, and reached 15.7% according to the 2007 survey [4] (Figure 2). Although the number of households on benefits declined to a record-low of 590,000 in 1993, it has been growing steadily since then, and reached 1,270,000 in 2009 [5].

Several indices are used to evaluate income disparities in the nation and in regions, and they have been increasing since around 1980 in Japan [1]. For example, the Gini coefficient, one of these indices, keeps rising to 0.376 (1995), 0.408 (1998), 0.419 (2001), 0.435 (2004), and 0.454 (2008) on an equivalent initial income basis (Figure 3) [6]. The Gini coefficient on an equivalent disposal income (initial income minus taxes, social insurance premiums, and social security benefits (cash benefits only)) basis remains roughly flat at 0.312 (1995), 0.337 (1998), 0.323 (2001), 0.322 (2004), and 0.327 (2008) after 2000. However, the Gini coefficient of the disposal income among specific age groups below 30 is increasing [6]. In addition, some point out that the reason why an increase of the Gini coefficient is not so prominent after 2000 is an apparent drop of the coefficient because of reduced national per capita income during this period [7].

With regard to Japan's labor income, while the number of those with an annual labor income of less than 3 million yen grows, the number of those with 3 million yen or more (excluding a group with an annual income of over 15 million yen) declines [8]. Our Gini coefficient of labor income has been on the steady rise since 1987 (Figure 4). These values show that income disparities are expanding while worker income is slipping. The Annual Report on the Japanese Economy and Public Finance 2009 analyzes that the chief cause of these widening disparities was attributed to increased non-regular workers [9].

Public awareness toward socioeconomic disparities is also changing. The percentage of people who thinks that they are "Not satisfied" (sum of "Almost not satisfied" and "Not very satisfied") about "fewer inequalities in income and asset" has been increasing to over 50% since 1987, and a recent (2008) survey shows that about a half of the people feel that they are "Not satisfied" [10] (Figure 5). An increase of low income people, widening income disparities, and accompanied changes in public awareness are thought to contribute to raised concerns and interest in social disparities in health in this country.

### **(2) Marshalling issues regarding social disparities in health**

The Joint Subcommittee on Public Health Science of the Committee on Basic Medicine and the Committee on Health/Human Life Science, Science Council of Japan, co-organized two symposiums in the past with Japanese



Society of Public Health (The 67th Annual Meeting of Japanese Society of Public Health in Fukuoka on November 6, 2008, entitled “Issues of Public Health – Disparity Society/Poverty and Public Health,” and the 68th Annual Meeting in Nara on October 21, 2009, entitled “Social Disparities and Health – For Measures against Important Issues of Public Health,” and devoted discussions to the present conditions of social disparities in health as well as how the expert group should respond. As a result, concerns and interest in social disparities in health today are thought to broadly fall into three categories, as follows depending on objects (Figure 6).

First, against the backdrop of current increase in the poverty group and households on benefits, there are concerns that health problems accumulate in the low income group, and that the minimum healthcare and welfare services are becoming less accessible to such groups. For example, persons with low income are likely to have less access to medical care due to economic difficulties paying an out-of-pocket medical cost. Especially, the global financial crisis and economic slump are driving many people’s lives into financial difficulties. Under such drastic socioeconomic changes, how to secure the health of low income groups is an urgent issue.

Second, there are concerns that as stratification advances due to socioeconomic conditions, disparities in health problems exist through the entire social pyramid, not limited to the low income/poor groups, and such disparities are widening. There are also concerns that conventional healthcare and welfare services such as the health screening and care prevention businesses are hardly likely to reach those with low education and income.

Third, there are concerns that apart from socioeconomic conditions such as academic background and income, health problems accumulate among those socially disadvantaged (i.e., the unemployed and homeless persons, or foreign laborers), and healthcare and welfare services are less likely to be provided to this group sufficiently.

The WHO (World Health Organization) formed recommendations regarding “social determinants of health” (in 1998 and revised in 2003) [11, 12], and furthermore compiled a final report of the Commission on Social Determinants of Health in 2008 [13]. This report states that socioeconomic positions such as poverty become a major determinant of people’s health, and calls for the necessity of global actions to improve health inequalities due to such social determinants of health [14]. Social disparities in health are positioned as an important issue for future healthcare and welfare both in Japan and across the world.

### **(3) Standpoints of related recommendations in the past and this recommendation released by Science Council of Japan**

Science Council of Japan issued a recommendation entitled “For Inclusive Social Policies to Cope with Economic Crisis” [15] in 2009, which provides concrete suggestions on how social security policies should be under the global financial crisis and economic slump. Also, another recommendation entitled “Reconstruction of the System for Labor/Employment and Safety/Health – To Secure the Well-being of Workers” [16] was released in 2011, which provides suggestions on the changeover of various measures and services to give workers’ good health and safety equally to non-regular employees and all laborers working at extremely small, small and medium sized enterprises. A part of the report entitled “Health Promotion of the Japanese Children” [17] states that attention should be also focused on children’s poverty and social disparities. These recommendations and the report are intimately linked with this recommendation. However, there have been no recommendations issued yet focusing on the full picture of the social disparities in health.

It is necessary to understand the present conditions of social disparities in health in Japan, and comprehensively reexamine our healthcare and welfare from the perspective on social disparities in health, as well as to enhance the

academic base for understanding and improving such disparities. If positive responses to problems on social disparities in health are not started immediately, the disparities could potentially expand without being understood in whole, and as a result, exert greater impact on the future public health and the entire society in Japan.

This document marshals the current state of research on social disparities in health in Japan by major issues, compiles issues toward understanding and improvement of the present conditions of these disparities, and recommends various measures against them.

## **2 Present Conditions of Social Disparities in Health**

### **(1) Academic background, income, and health**

According to a recent review [18], there are research results reported that socioeconomic background—including academic background, income, and occupational hierarchy—causes health inequalities. As for the association between academic background and health, four geographical correlation studies show that the regions with more people with lower education cause higher total mortality and suicide rates. Five cross-sectional studies find that those with lower education have a higher mortality rate [19] (Figure 7), more risk factors of cardiovascular diseases, more subjective symptoms, lower sense of good health, and fewer sleeping hours. Two prospective cohort studies clarify that people with lower education have higher total mortality rate and morbidity rate of gastric cancer. However, some cohort studies focusing on elderly persons report that those with lower education have longer life. Eleven papers have been published regarding revenue/income and health in Japan [18]. Five ecological studies (geographical correlation studies) among these papers show that those living in lower income areas have higher frequency of stillbirth, malignant tumor of the uterus and lung, external injury, and suicide [20] (Figure 8), and lower life expectancy. In addition, those living in communities with poor socioeconomic conditions have less access to health screening. Cross-sectional studies also report that people with low income have a lower sense of good health [21] (Table 1), lower quality of life, and more unhealthy living habits, such as smoking. Moreover, it has been observed in studies that besides whether an individual income is low or high, living in an area with considerable income disparities raises health risks [22]. Results of comprehensive analysis of international studies including those conducted in Japan (meta-analysis) unfold that living in an area with more considerable income disparities raises the mortality risk [22].

In addition, it has been demonstrated that a degree of socioeconomic disparities in health in Japan is lower than those in Europe and the U.S. However, given the timing of these studies, many of them were conducted before the recent global economic crisis. It has been also shown that social disparities in health due to socioeconomic factors may be growing in Japan today [18, 23] (Figure 9).

### **(2) Children's social disparities and health**

Families nurture their children in the home, and they grow and develop while being guarded by the society and environment. The basis for the promotion of health throughout a lifetime is laid during this period. Family/home and social environments are deemed to affect children in many different ways. Overseas reports show that living in a poor family or in an area with poor socioeconomic conditions affects children's health, and socioeconomic conditions influence low birth weight and nutritional status in childhood, and are associated with their subsequent health [24].

There are not so many studies conducted regarding children's social disparities in health in Japan. Surveys by

Tokyo's 23 wards show that wards with lower average income have a higher rate of decayed teeth among 6th graders [25]. According to research using data from the Japan General Social Survey [7], children raised in a poor family have a lower final education level and less income in their adulthood, as well as a lower subjective sense of good health. Also, children with experience of being in poverty during the period from birth to four years old are reported to have shorter height, lower weight, and higher numbers of hospitalization at the age of four [26].

The Subcommittee on Children's Health of the Committee on Health/Human Life Science, Science Council of Japan compiled issues and proposals covering 16 fields and the total of 56 items regarding the health of children today, and released a report entitled "Health Promotion of Japanese Children" in July 2010 [17]. The report states that "Although children's poverty and disparities in education have been discussed, there are not so many reports on the verification for the connection between poverty/disparity in society and children's health, as well as related measures," however "the media has recently covered cases of children who are not able to eat meals (or not served meals), uninsured children, and children who do not have access to medical care, and case reports are made based on regional and environmental characteristics," pointing out the importance of the problems of social disparities in children's health. This report [17] suggests implementing measures against children's poverty and measures to redress disparities in the entire society so that they can have hope, and a safe, secure, and healthy life, which are outlined in the five items as follows:

- (i) To promote a policy changeover, and the improvement and enrichment of a supportive social environment from the viewpoint of the redress of poverty and disparities
- (ii) To enhance supportive socioeconomic and psychological factors such as social capital, and promote the rectification of disparities
- (iii) To boost school and regional capabilities to be key supportive social environment factors for children's health
- (iv) To enlighten people through school and social education, and seek to obtain good health and redress health inequalities
- (v) To promote life course epidemiology of socioeconomic and psychological rearing environment and health, and to transmit the necessary information

### **(3) Workers' social disparities and health**

Seventeen papers have been released on the association between the occupational hierarchy and health in Japan [18]. According to these studies, occupations such as machine operators and physical laborers have poorer health [27] (Figure 10) and more risk factors of diseases than managerial staff and specialist personnel. For example, the former is consistently reported to have more medical leave, more risk factors of cardiovascular diseases, lower quality of sleep, and higher occupational stress.

Non-regular employment (including part-time work, fixed-term employment, worker dispatching, and sideline) accounted for around 15% of total labor in the first half of the 1980s, which has risen to more than 35% today [16]. The 2009 survey shows that letting the average income among male regular employees be 100, the one among female regular employees is approximately 70, versus extremely low scores for non-regular employment—i.e., 57 for male non-regular employees and 42 for female non-regular employees, and this difference is enormously big among OECD member nations. An overseas survey shows that non-regular employees have a higher mortality rate and disease/injury rate due to industrial injury compared with regular employees [28]. There had hardly been full-fledged research and surveys conducted regarding the health of non-regular workers until recently in Japan

[29]. In recent years, however, non-regular employees have been reported to have a higher level of depression and anxiety [30] (Figure 11) than regular employees, and as for fixed-term employees, stress resulting from an imbalance between their efforts and compensation has a greater impact on their health (subjective symptoms) compared with regular employees on a retirement age system [31].

Especially, what should not be disregarded in this country is the difference in employment patterns and working hours by generation (age group) and by gender, and the impact on health conditions. Particularly, more than 50% of women have been in non-regular employment since their first jobs. Meanwhile, although the ratio of non-regular employment is lower for male workers than female workers, the ratio of male workers working for long hours—i.e., more than 60 hours a week, remains high—notable at the age of 25 to 35 in particular. It has been pointed out that the increase of the working poor in non-regular employment whose annual wage is less than 2 million yen is inextricably linked with long-hour excessive work by regular employees (permanent employees), and in order to improve such conditions, one of the committees by themes of Science Council of Japan, the Committee on Labor/Employment Environment and Workers' Life/Health/Safety published its recommendation entitled "Reconstruction of the System for Labor/Employment and Safety/Health—To Secure the Well-being of Workers" [16] (previously mentioned). There is apprehension that tolerance of considerable differences in employment/labor conditions by generation and gender may undermine future potential (sustainability) of the Japanese society. Twelve studies have been released on the association between unemployment and health in Japan [18]. Ecological studies (geographical correlation studies) find that areas with a high unemployment rate have higher total morality and suicide rates. According to two cross-sectional studies, unemployed persons have more stress and a high morbidity rate of chronic diseases. Prospective cohort studies show that unemployed people have a higher mortality rate of cerebral vascular diseases. Also, the suicide rate of those in unemployment (per 100,000 population) is 184 for men and 34 for women, reaching four to six times those who are employed (32 for men and 9 for women) [32].

#### **(4) Elderly persons' social disparities and health**

Health inequalities widen among elderly persons, because in older age, physical inability advances with aging, the importance of psychological and social health grows compared with other generations, and the effects of physical, psychological, and social factors accumulate at various stages in the course of life. Also, old age is characterized by being more subject to socioeconomic effects due to a smaller scope of activities. This may lead to elderly persons' health inequalities depending on the socioeconomic conditions. The reason for concerns about elderly persons' social disparities in health is that the percentage of elderly living on benefits has continued to rise, and income disparities among elderly households are still larger than general households even though the gaps are narrowed because of the income redistribution of social security benefits, etc [33].

There are not yet so many studies on social disparities in health among the elderly in the world. The Committee on Public Health Monitoring and Report of the Japanese Society of Public Health systematically searched for research on the association between socioeconomic factors and health among the Japanese elderly persons, and found five publications in English and nine in Japanese [34]. These publications report that disparities arising from socioeconomic conditions exist on various health aspects such as mortality rate, frequency of major diseases (cancer, stroke, high blood pressure, etc.) [35], the state requiring nursing care and its causative nursing risks (i.e., falling, under-nutrition, oral functions), subjective sense of good health, mental health including depression, and

social activities (i.e., voluntary shut-in, social participation, social support, abuse) (Figure 12). Also, a report shows the possibility that more socioeconomically-advantaged households have more nursing capabilities for the elderly, and provide better care during the process leading to their death [36] (Figure 13). There is an overseas study stating that persons with lower education and income are likely to become demented [37]. However, no such study has yet been conducted in Japan.

#### **(5) Social disparities in access to medical care**

Japan has social security systems in place such as universal pension, universal health insurance (medical and nursing), medical care system for the elderly, and welfare benefits for those with low income, and differences in access to medical care depending on the socioeconomic conditions are considered to be smaller than other nations. There are some studies, however, showing social disparities in access to medical care in this country. For example, lower-income insured persons of corporate health insurance societies are less likely to be seen in a doctor's or dentist's clinic [38]. It has been reported that the elderly in the low-income group have often refrained from receiving medical care [35] (Figure 14). These reports do not immediately indicate that medical consultation is curbed for economic reasons, however continued research should be conducted on social disparities in access to medical care in Japan.

In addition, non-regular employees tend not to join the social security system [39], and the possibility has been raised that this may interfere with access to medical care. For example, a survey at a New Year tent village set up as an emergency shelter for non-regular employees who had lost their jobs and homes at the year-end of 2008 shows many cases of less accessibility to medical institutions despite their subjective symptoms, and of interruption in therapy [40].

Knowledge and understanding of healthcare (health literacy) is essential for voluntary access to medical care, and good communication with medical providers in order to receive high-quality medical care. The insufficient health literacy of those in low socioeconomic conditions may lead to problems with access to medical care and the quality which they have access to [13, 41]. In the U.S., a national agency's report has pointed out that socially disadvantaged persons including minorities, the low income group, and the low education group tend to have a lower medical quality in implementation of health guidance and periodic checkups by physicians [42]. However, the association between socioeconomic conditions and the quality of accessible medical care has not yet been considered in Japan.

#### **(6) Measures against social disparities in health**

Based on the final report of the Commission on Social Determinants of Health, WHO adopted a resolution at its general assembly in 2009 to recommend the member nations to focus on social determinants of health and advance efforts to redress health inequalities [14]. It especially recommends the promotion of improving living conditions at all stages during the life course from birth to older age, rectification of social disparities themselves causing health inequalities, measurement of health inequalities, and impact assessment of various policies on health [43]. In the U.K. [44], Sweden [45], and South Korea, the governments have laid out numerical targets to redress health inequalities, and revised their public health acts for measures against social disparities in health. In the U.S., a national research institute has been advancing efforts such as releasing a report on social disparities in medical care [42]. The background to such advanced efforts in these countries is that a large number of cases of

health inequalities indicating that those in lower social classes are unhealthier than those in higher classes have been observed, and there has been accumulation of researches indicating a high mortality rate due to less accessibility to medical care against the backdrop of the socioeconomic disparities involved. Meanwhile, the fact is that Japan has not positioned social disparities in health as a pivotal policy issue, and research on improvement measures have hardly been conducted.

### **3 Japan's Issues on Social Disparities in Health**

As stated above, research results on social disparities in health have been accumulated in Japan as well. It is thought that health problems accumulate in the low income/poverty groups, and that health inequalities exist through the social pyramid. Also, some socially disadvantaged persons including non-regular employees are likely to have problems with access to medical care as well. Future progress of studies on social disparities in health is expected to bring more essential understanding of these disparities and clarify how more concrete measures should be. At present, however, when certain research results already exist, it is necessary to start wherever possible and take action in order to improve such disparities from the viewpoint of the fundamental principle of equality of assuring all people of health in the Constitution of the World Health Organization [46], as well as the right to maintain health stipulated in the Article 25 of our constitution.

Meanwhile, research results are still limited in terms of numbers and research quality. The scope of social disparities and health problems covered is also limited. For example, adequate conclusions have not yet been made on whether social disparities are caused in access to medical care and the quality of accessible medical services in Japan. The complete picture of social disparities in health is still not clear. It is necessary to promote studies on such disparities in this country in various aspects. Also, comprehensive and continuous monitoring of such disparities is required.

The following is a concrete summary of our issues on social disparities in health.

#### **(1) Absence of perspectives on social disparities in health in healthcare and welfare policies and activities**

There are almost no activities conducted focusing on such disparities at present in terms of regional health activities. In order to implement such regional activities, perspectives on social disparities in health need to be incorporated into healthcare and welfare policies first. Although Japan's health promotion strategy, Healthy Japan 21 [<http://www.kenkounippon21.gr.jp/index.html>], has employed health promotion forming the society and environment which support individual health promotion activities as the cornerstone, it has not specifically mentioned how the health promotion in the light of social disparities in health should be. It has been pointed out that the population approach, another strategy incorporated in Healthy Japan 21, may indeed lead to growing social disparities in health [47]. Our healthcare and welfare measures including Healthy Japan 21 need to employ an approach focusing on the disparities. Although some prefectures have already included efforts against the disparities in their regional health plans, these have been done individually, and have not been systematized in the measures to promote Japan's regional health activities. By systematically incorporating perspectives on and measures against social disparities in health in our healthcare and welfare policies, it is necessary to enable regional health activities in light of such disparities to be promoted. The strategy for the promotion of health and the measures for occupational safety and health which the Ministry of Health, Labor and Welfare has been pursuing should specify perspectives on and response to social disparities in health. As for regional health

activities in each local municipality, the following should be clarified: to request activities focusing on the disparities to be included in their regional health plans as a fundamental matter; to specify the roles of public health centers and local municipalities to improve the disparities; for departments responsible for local health activities to collaborate with other departments responsible for urban planning and industrial promotion, and promote improvement of the disparities from the aspect of social policies as well.

As for occupational safety and health, the following should be promoted: to request uniform industrial health services to be provided to workers under different employment conditions at workplaces; to provide basic industrial health services to the socially-disadvantaged such as non-regular employees and unemployed persons.

Academic societies are expected to clarify measures to improve social disparities in health, and to provide related information and training to healthcare and welfare specialists. Also, they are expected to draw up guidelines on their own for healthcare and welfare services in light of such disparities. Moreover, they are expected to support individual practitioners so that they can promote activities for regional health and welfare as well as industrial health in light of the disparities.

## **(2) Lack of systems to monitor social disparities in health and draw up measures**

To obtain a true figure of health inequalities due to socioeconomic factors is the first step in determining the degree of socioeconomic disparities in health that exists in Japan, and what social disparities should be priority issues to tackle. Because of changes in socioeconomic conditions, social disparities and their health impacts may significantly change year by year. In order to obtain a real picture and link it to measures promptly, existing government statistics and other materials need to be utilized to implement chronological monitoring of social disparities in health. In recent years, the government (i.e., the Cabinet Office and the Ministry of Health, Labor and Welfare) has been seeking to actively disclose indices related to social disparities. However, it has not released enough information on the true picture of these disparities in health. The government is requested to conduct chronological monitoring of such disparities, reveal their true figure in Japan, and actively release the results to the public by using the existing government statistics and other materials and carrying out new studies as necessary.

Particularly, as for access to medical care, a certain degree of consideration is thought to be made at present to those socially disadvantaged such as those in low socioeconomic conditions, with universal health insurance, medical aid for households on benefits, and medical aid and reduction or exemption of medical expenses for the disabled in Japan. However, disparities in access to medical services may exist among non-regular employees and those who are uninsured. Including the aforementioned, the comprehensive true figure needs to be revealed—i.e., how much access to medical and welfare services is hampered among the socially disadvantaged such as low income, low education, jobless and homeless persons, and foreign laborers in Japan.

In response to the monitoring of social disparities in health, promotion of the measurers to improve such disparities requires a high level of research and a government organization (or a center function) with highly advanced integration and adjusting functions, which links the research to the planning of administrative measures. At present, however, administrative functions related to such disparities are divided and located in each department in the Cabinet Office or the Ministry of Health, Labor and Welfare, without an organization playing a role of an integrated center function. Meanwhile, overseas, the U.K. drew up a Department of Health-driven governmental action plan across ministries and agencies for improvement of such disparities in 2003, and the

progress of this plan has been monitored and promoted since then [44]. Tools to evaluate regional social disparities in health are also provided. In the U.S., the Department of Health and Human Services acknowledges such disparities as a key health issue, and CDC (Centers for Disease Control and Prevention), a national research institute, started periodic monitoring of these disparities in the country [48].

Japan also requires an organization or a center function, which conducts monitoring of the matter and policy planning for improvement in the response to the monitoring results.

The Joint Subcommittee on Public Health Science of the Committee on Basic Medicine and the Committee on Health/Human Life Science, Science Council of Japan already called for promotion of secondary use of the government statistics and administration data, and compilation and enrichment of the information mentioned, as well as development of the utilization system in its recommendation entitled “Utilization of the Government Statistics and Administration Data in the Healthcare Field—As Infrastructure Development to Secure People’s Health and Safety” during the 20th term (August 28, 2008) [49]. The monitoring and policy planning system for social disparities in health mentioned above is included in this recommendation. It should be pointed out once again, however, that the promotion of measures based on this recommendation has made no progress at all.

Meanwhile, the WHO recommends implementation of health impact assessment to assess in advance the effects of policies on health in designing and introducing social policies including healthcare and welfare systems in order to improve social disparities in health [14]. Health impact assessment, HIA, is a series of processes and the methodologies to optimize policies so that the benefits of health are promoted and disadvantages are minimized, by forecasting and assessing potential impacts of newly proposed policies on health in advance. Although health impact assessment has developed mainly in the environmental field, it is applied to many different areas including employment, education, and urban development as a policymaking tool for central governments and local municipalities particularly in Europe today. This assessment allows us to predict in advance how individual policies affect such disparities, and to modify policies so that possibilities, if any, of expanding such disparities can be reduced. However, almost no health impact assessment has been made in Japan [50], and our future issues include nurturing of human resources, development and popularization of methodologies, and accumulation of experiences related to this matter. The government needs to develop and popularize methodologies, nurture human resources, accumulate experiences, and actively utilize impact assessment so that the administration can conduct health impact assessment in advance in light of health effects, particularly social disparities in health, in designing systems for both health and social policies. In the future, they should start studies considering legislation that requires health impact assessment in designing policy systems.

### **(3) Absence of perspectives on social disparities in health in nurturing healthcare personnel**

In order to conduct healthcare and welfare activities in the light of social disparities in health, healthcare and welfare specialists need to understand the disparities and do day-to-day practice with these in mind. This will require inclusion of perspectives on such disparities in training courses and lifelong education for healthcare and welfare specialists. However, neither current training curriculums nor lifelong education for these specialists include such perspectives. Practical guidelines for healthcare and welfare with consideration of social disparities in health are not available. As the Japanese Society of Public Health does through their journals and academic general meetings, there are cases in which information and learning opportunities regarding such disparities are provided to its members [51], although the numbers are small.



Also, existing healthcare and welfare specialists require higher levels of professional and interdisciplinary capabilities so that they can analyze the disparities, and propose and plan healthcare and welfare services based on the analysis. Graduate courses specialized in nurturing specialists in public health have been founded at universities gradually across the country since 2000. At present, there are four professional graduate schools related to public health, and several graduate schools offer specialized courses for public health in their conventional medical master's degree programs. The Joint Subcommittee on Public Health Science of the Committee on Basic Medicine and the Committee on Health/Human Life Science, Science Council of Japan also released its recommendation entitled "Utilization and Enhanced Functions of Public Health Graduate Schools toward the Improvement of Public Health in Japan" in October 2011, and is calling for the expansion and utilization of public health graduate schools [52]. In order to develop healthcare and welfare professionals capable of responding to social disparities in health, it is also necessary to cultivate capabilities of responding to such disparities and nurture highly-specialized personnel by providing interdisciplinary education integrating various academic fields related to such disparities, i.e., economics, sociology, politics, and public policy studies at professional graduate schools for public health, etc.

Academic societies are expected to include items related to the present conditions of and measures against such disparities in lifelong education for healthcare and welfare professionals. Also, they are expected to improve their members' awareness, knowledge and techniques related to this matter through their academic general meetings and training sessions. Educational institutions including universities which nurture healthcare and welfare professionals are expected to provide classes on social disparities in health in their curriculums.

#### **(4) Absence of perspectives on public participation in efforts to redress social disparities in health**

The ultimate stakeholders in social disparities in health are people. People's awareness of the problems of these disparities has been rising. Discussions on the improvement of social disparities in health—i.e., what disparities are key issues, and what disparities can or cannot be tolerated—are discussions on the very shape of our future society. Opportunities are limited, however, to transmit accurate and scientific information on related research results and administrative policies to the public. There are no opportunities yet for people, healthcare and welfare professionals (or related academic societies), and the administration to exchange opinions on the understanding of the present status of social disparities in health, directions and priorities of administrative measures, and ideal future visions, and to form a national consensus. The government needs to set up permanent round-table meetings (panels) related to this matter across ministries and agencies, consisting of the public, the management, representatives of labor, healthcare and welfare experts, representatives of relevant ministries and agencies, and others involved. Through these occasions, the varieties of the parties involved with such disparities should exchange opinions, and the government should refer to these opinions in determining its administrative policies. Additionally, opportunities should be created to provide accurate and scientific information on the present conditions of social disparities in health and the improvement measures to the public by periodically holding civic participation symposiums and forums on such disparities.

Academic societies and private organizations such as NPOs are expected to encourage awareness-raising regarding social disparities and cooperate in efforts toward improvement of such disparities by public participation, by providing related information to the public from their respective positions.

#### **(5) Lack of research related to social disparities in health**

Although related studies have been progressing, the numbers are still small for the size of the research area, and the quality is not sufficiently high. There are not enough studies on the clarification of psychological and biological factors that mediate the relationship between socioeconomic conditions such as income, academic background, and health. Not many studies have been conducted focusing on specific classes and groups, i.e., low income, jobless and homeless persons, and foreign laborers. There are very few studies on improvement measures against social disparities in health. It is necessary through research to comprehensively visualize the present conditions of such disparities in Japan and to obtain guidelines for improvement measures. These studies need to be promoted from interdisciplinary perspectives including not only sociology or economics, but also medicine and public health. Further progress of such studies in the future is expected to promote more essential understanding of the mechanism of the disparities and lead to the recommendation of more concrete measures.

### **4 Recommendation**

#### **(1) To consider social disparities in health in healthcare and welfare policies**

It is recommended that the government should clarify perspectives on social disparities in health and response to these disparities in our national healthcare and welfare activities. The strategy for the promotion of health and the policy of occupational safety and health administration which the Ministry of Health, Labor and Welfare has been pursuing should specify perspectives on and response to such disparities, based on which it should be promoted that approaches to such disparities are incorporated in regional health plans of local governments and occupational safety and health activities of workplaces for implementation. Academic societies are expected to cooperate in and support this from their professional standpoints.

#### **(2) To organize systems for monitoring social disparities in health and drawing up measures**

It is recommended that the Cabinet Office, the Ministry of Health, Labor and Welfare and other ministries and agencies should conduct chronological monitoring of social disparities in health through analysis of existing government statistics or new surveys, and actively disclose the results to the public. Also, an organization responsible for linking the monitoring results to policy planning across ministries and agencies to improve the disparities should be established. Furthermore, it is recommended to develop and popularize methodologies for health impact assessment, nurture human resources, accumulate experiences, actively utilize the assessment, and seek to spread the assessment as administrative tool for improvement of such disparities.

#### **(3) To include perspectives on social disparities in health in nurturing human resources for healthcare and welfare**

It is recommended that social disparities in health should be included in training courses and lifelong education curriculums for healthcare and welfare professionals. The Ministry of Health, Labor and Welfare should incorporate perspectives on such disparities in the training course curriculums for healthcare and welfare professionals. In addition, it is also deemed important that the Ministry of Education, Culture, Sports, Science and Technology further promotes opening professional graduate schools for public health specialists, and incorporates education related to such disparities in the curriculums, in conjunction with further promotion of related research, so that a research base capable of responding to such disparities can be built, and highly-specialized personnel be

developed. It is expected that educational institutions for healthcare and welfare professionals cooperate in this effort, and academic societies raise their members' awareness about the disparities through lifelong education and their academic general meetings.

**(4) To promote efforts to redress social disparities in health, driven by public participation**

It is recommended that the government should set up round-table meetings across ministries and agencies to discuss the disparities, consisting of those involved, such as the public, management, representatives of labor, healthcare and welfare experts, and representatives of the relevant ministries and agencies, which the government should use as a reference in the national policymaking. Opportunities should also be created to provide accurate and scientific information to the public through civic participation symposiums and forums. Both academic societies and private organizations are expected to cooperate in such efforts from their respective positions.

**(5) Promotion of research related to social disparities in health**

It is recommended that interdisciplinary research on social disparities in health should be promoted more than ever. Relevant ministries and agencies such as the Ministry of Education, Culture, Sports, Science and Technology, the Ministry of Health, Labor and Welfare, the Ministry of Internal Affairs and Communications, the Ministry of Land, Infrastructure, Transport and Tourism, and the Ministry of Economy, Trade and Industry, should promote research related to such disparities from their respective positions. Academic societies are expected to encourage interdisciplinary research on such disparities in mutual collaboration.

## <Glossary>

### Equivalent Income

A value acquired by dividing the household disposable income by the square root of the number of household members for per-capita income adjustment

### Relative Poverty Rate

According to the OECD definition, the proportion of people with equivalent disposable income of less than half the national median

### Gini Coefficient

An index that measures the inequality of income distribution in the society. Ranging from 0 to 1, the value of the coefficient will be closer to 0 for a lower degree of inequality, and closer to 1 for a higher degree of inequality.

### Geographical Correlation Study

A method of epidemiological studies to analyze the association between characteristics and health indices in different regions, using a region such as a city, town, or village as a unit. Also known as an ecological study.

### Health Promotion

A new health strategy introduced by World Health Organization (WHO) in the Ottawa Charter in 1986, and defined as the “process of enabling people to increase control over, and to improve, their health.” Health promotion includes activities not only to reinforce individual skills and capabilities in order to realize good health, but to change social, environmental, and economic conditions in order to mitigate adverse impacts on public health and individual health.

### Population Approach

A method to focus on the tremendous benefits brought on the population as a whole by gradually decreasing the risks of a large population, and shifting the distribution of the population-wide risks. Frequently compared with a High Risk Approach, a preventive method focusing on individuals with higher risks of disease initiation.

### Health Impact Assessment (HIA)

A series of the processes and the methodologies to optimize policies so that the benefits of health are promoted and disadvantages are minimized, by forecasting and assessing the potential impacts of newly proposed policies on health in advance. Although HIA has developed mainly in the environmental field, it is applied to many different areas including employment, education, and urban development as a policymaking tool for central and local governments, particularly in Europe today.

### Graduate School of Public Health

Europe and the U.S. have had institutionalized special graduate school education in public health for ages and have cultivated a wide range of human resources for this field. Graduate courses specialized in nurturing specialists in public health have been founded at universities across Japan since 2000, including the School of

Public Health at Kyoto University in 2000 (precursor of today's professional graduate school), the Department of Health Care Administration and Management in the Graduate School of Medical Science at Kyushu University in 2001 (precursor of today's professional graduate school), the School of Public Health at the University of Tokyo in AY 2007 (professional graduate school), and the Graduate School of Public Health at Teikyo University in AY 2011 (professional graduate school). Meanwhile, Osaka University and the University of Tsukuba offer specialized courses in public health in their conventional medical graduate studies in order to assume a role in nurturing public health experts.

## <Bibliography>

- [1] Tachibanaki, Toshiaki. Economic disparity in Japan—from the perspective of income and asset—. Iwanami Shinsho, 1998.
- [2] Sato, Toshiki. Japan's unequal society—farewell to the all-middle class society. CHUOKORON-SHINSHA. INC, 2002.
- [3] Kondo, Katsunori. Social determinants of health (1) 'social determinants of health' and trend in health disparity. *Japanese Journal of Public Health*, 57, no. 4 (2010): 316-319.
- [4] Ministry of Health, Labor and Welfare. "Release of relative poverty rate" . October 20, 2009.
- [5] Ministry of Health, Labor and Welfare, Minister's Secretariat, Statistics and Information Department, Social Statistics Division. "Report on Social Welfare Administration and Services 2009." October 20, 2010.
- [6] Ministry of Health, Labor and Welfare. "Survey on the Redistribution of Income." September 1, 2010.
- [7] Oshio, Takashi. Welfare analysis of redistribution. Nippon-Hyoron-sha Co., Ltd., 2010.
- [8] Ministry of Health, Labor and Welfare. Basic Survey on Labour Structure 2007. July 3, 2008.
- [9] Cabinet Office, Government of Japan. Annual Report on Economy and Finance 2009 (Report of the Minister of State for Economic and Fiscal Policy)—overcoming of crisis and prospect for sustainable recovery—. July 2009.
- [10] Cabinet Office, Government of Japan. *Consciousness Survey 2008*. June 19, 2009, accessed September 17, 2011, <http://www2.ttcn.ne.jp/honkawa/4670.html>.
- [11] Wilkinson, R. G. and M. Marmot, eds. *Social Determinants of Health; the Solid Facts*. Geneva: World Health Organization, 1998.
- [12] Wilkinson, R. G. and M. Marmot, eds. *Social Determinants of Health; The Solid Facts*. 2nd ed. Geneva: World Health Organization, 2003.
- [13] Commission on Social Determinants of Health. *Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health*. World Health Organization, 2008.
- [14] WHO. *RESOLUTIONS WHA62.14 Reducing health inequities through action on the social determinants of health*. Geneva, 2009.
- [15] Science Council of Japan, the Joint Subcommittee on the Multilateral Deliberation on Inclusive Social Policies of the Committee on Sociology/Social Welfare and the Committee on Economics. Recommendation: For inclusive social policies to cope with economic crisis. June 25, 2009.
- [16] Science Council of Japan, The Committee on Labor/Employment Environment and Workers' Life/Health/Safety. Recommendation: Reconstruction of the System for Labor/Employment and Safety/Health—To Secure the Well-being of Workers. April 20, 2011.
- [17] Science Council of Japan, the Subcommittee on Children's Health of the Committee on Health/Human Life Science. Report: Health promotion of the Japanese children. July 12, 2010.
- [18] Kagamimori, S., A. Gaina, and A. Nasermoaddeli, "Socioeconomic status and health in the Japanese population." *Social Science and Medicine* 68, no. 12 (2009): 2152-60.
- [19] Fujino, Y., A. Tamakoshi, H. Iso, Y. Inaba, T. Kubo, R. Ide, A. Ikeda, T. Yoshimura, and for the JACC study group. "A Nationwide Cohort Study of Educational Background and Major Causes of Death among the Elderly Population in Japan." *Preventive Medicine* 40, no. 4 (2005): 444-51.
- [20] Fukuda, Y., K. Nakamura, and T. Takano. "Cause-Specific Mortality Differences across Socioeconomic

- Position of Municipalities in Japan, 1973-1977 and 1993-1998: Increased Importance of Injury and Suicide in Inequality for Ages under 75.” *International Journal of Epidemiology* 34, no. 1 (2005): 100-9.
- [21] Shibuya, K., H. Hashimoto, and E. Yano. “Individual Income, Income Distribution, and Self Rated Health in Japan: Cross Sectional Analysis of Nationally Representative Sample.” *BMJ* 324, no. 7328 (2002): 16-9.
- [22] Kondo, N., G. Sembajwe, I. Kawachi, R. M. van Dam, S. V. Subramanian, and Z. Yamagata. “Income Inequality, Mortality, and Self Rated Health: Meta-Analysis of Multilevel Studies.” *BMJ*. 2009; 339: bmj.b4471, November 10, 2009, doi: 10.1136/bmj.b4471.
- [23] Fukuda, Y., H. Nakao, Y. Yahata, and H. Imai, “Are Health Inequalities Increasing in Japan? The Trends of 1955 to 2000.” *BioScience Trends* 1, no. 1 (2007): 38-42.
- [24] Japanese Society of Public Health, Public Health Monitoring Report Committee, Public health monitoring report (3) ‘child health and health effect of social disparity and low birth weight’. *Japanese Journal of Public Health* 58 no. 3 (2011): 212-215.
- [25] Komamura, Kohei. Great-poverty society. *KADOKAWA SSCShinsho*. KADOKAWA SS Communications Inc., 2009.
- [26] Abe, Aya, Child health and experience of poverty. In Development research of comprehensive analysis system regarding panel survey (longitudinal survey) of health labor sciences research grant (statistics information comprehensive study project, H18-Tokei-002) Comprehensive study report 2007 by Ryuichi Kaneko, 205-216. 2008.
- [27] Martikainen, P., E. Lahelma, M. Marmot, M. Sekine, and N. Nishi, and S. Kagamimori. “A Comparison of Socioeconomic Differences in Physical Functioning and Perceived Health among Male and Female Employees in Britain, Finland and Japan.” *Social Science and Medicine* 59, no. 6 (2004): 1287-95.
- [28] Kivimäki, M., J. Vahtera, M. Virtanen, M. Elovainio, J. Pentti, and J. E. Ferrie. “Temporary Employment and Risk of Overall and Cause-Specific Mortality.” *American Journal of Epidemiology* 158, no. 7 (2003): 663-8.
- [29] Yano, Eiji, Irregular employment and health. *Gakujutsu no doko*[Trend in study] 10 (2010): 20-23.
- [30] Inoue, A., N. Kawakami, M. Tsuchiya, K. Sakurai, and H. Hashimoto. “Association of Occupation, Employment Contract, and Company Size with Mental Health in a National Representative Sample of Employees in Japan.” *Journal of Occupational Health* 52, no. 4 (2010): 227-40.
- [31] Inoue, M., S. Tsurugano, M. Nishikitani, and E. Yano. “Effort-Reward Imbalance and Its Association with Health among Permanent and Fixed-Term Workers.” *BioPsychoSocial Medicine* 5 no. 4 (2010): 16.
- [32] Kaneko, Yoshihiro. Suicide prevention measure from the perspective of statistic data. In Comprehensive seminar of suicide prevention study. *Akita Igaku Soshō No. 1*, edited by Yutaka Motohashi, 109-134. AKITA SAKIGAKE SHIMPO, 2009.
- [33] Cabinet Office, Government of Japan, *White Paper on the National Lifestyle 2008*, December, 2008.
- [34] Japanese Society of Public Health, The Committee on Public Health Monitoring and Report, Socioeconomic factors and health for the elderly. *Japanese Journal of Public Health* 58, no. 7 (2011): 564-568.
- [35] Murata, C., T. Yamada, C. C. Chen, T. Ojima, H. Hirai, and K. Kondo. “Barriers to Health Care among the Elderly in Japan.” *International Journal of Environmental Research and Public Health* 7, no. 4 (2010): 1330-41.
- [36] Sugimoto, Hiroaki, Katsunori Kondo, and Kyoko Higuchi. Disparity of care in terminal phase by economic standard of household—National survey targeted for the elderly with home care. *Shakai fukushi gaku*[Social

welfare study] 52, no. 1 (2011): 109-121.

[37] Shirai, Kokoro, Hiroyasu Iso, and Katsunori Kondo. Social determinants of health (8) ‘dementia’. *Japanese Journal of Public Health* 57, no. 11 (2010): 1015-1022.

[38] Kawazoe, Nozomi and Akira Babazono. Income effect in medical consultation for the insured person of health insurance association. *Kosei no shihyo* [Welfare index] 54, no. 6 (2007): 14-19.

[39] Toda, Noriko. Increase of irregular employment and social security. *Reference No. 673* (2007): 21-44.

[40] Tsurugano, Shinobu, Mariko Inoue, Naoki Nakatsubo, Hiroshi Ohi, and Eiji Yano. Health of the people in temporary workers village. *SANGYO EISEIGAKU ZASSHI* 51, no. 2 (2009): 15-18.

[41] Sugimori, Hiroki, Inequality of education and health. In *Social disparity and health: approach from social epidemiology*, edited by Norito Kawakami, Yasuki Kobayashi, Hideki Hashimoto, 105-126. University of Tokyo Press, 2006.

[42] US Agency for Healthcare Research and Quality. *2009 National Healthcare Disparities Report*. Edited by Services USDoHaH. Rockville, USA, 2010.

[43] World Health Organization (WHO). *Health Impact Assessment*. 2004, accessed September 17, 2011, <http://www.WHO.int/hia/en/>.

[44] Department of Health. *Tackling health inequalities: a programme for action*. London, 2003.

[45] Hogstedt, C., B. Lundgren, H. Moberg, B. Pettersson, and G. Ågren. “Background to the New Swedish Public Health Policy.” *Scandinavian Journal of Public Health* 32, Suppl. 64 (2004): 6-17.

[46] World Health Organization. *Constitution of the World Health Organization*, 1948.

[47] Yoshiharu Fukuda, Does population approach widen health disparity? comment of vulnerable population approach. *Nippon Eiseigaku Zasshi* [Japanese Journal of Hygiene] 63 (2008): 735-738.

[48] US Department of Health and Human Services, Centers for Disease Control and Prevention. “CDC Health Disparities and Inequalities Report—United States, 2011.” *Morbidity and Mortality Weekly Report* 60, suppl. (2011): 1-109.

[49] Science Council of Japan, the Joint Subcommittee on Public Health Science of the Committee on Basic Medicine and the Committee on Health/Human Life Science. Recommendation: Utilization of the government statistics and administration data in the healthcare field—as infrastructure development to secure people’s health and safety. August 28, 2008.

[50] Fujino, Yoshihisa and Shinya Matsuda. Basic concept of Health Impact Assessment and future effort in Japan. *Japanese Journal of Public Health* 54, no. 2 (2007): 73-80.

[51] Jitsunari, Fumihiko. ‘Rebuilding of a social base to protect health,’ issue of public health and roles of academy. In *Rebuilding of a social base to protect health—what the clue is—* edited by Norio Kurumatani and Fumihiko Jitsunari, 57-76. Japan Public Health Association, 2010.

[52] Science Council of Japan, the Joint Subcommittee on Public Health Science of the Committee on Basic Medicine and the Committee on Health/Human Life Science. Recommendation: Utilization and Enhanced Functions of Public Health Graduate Schools toward the Improvement of Public Health in Japan, September, 2011.



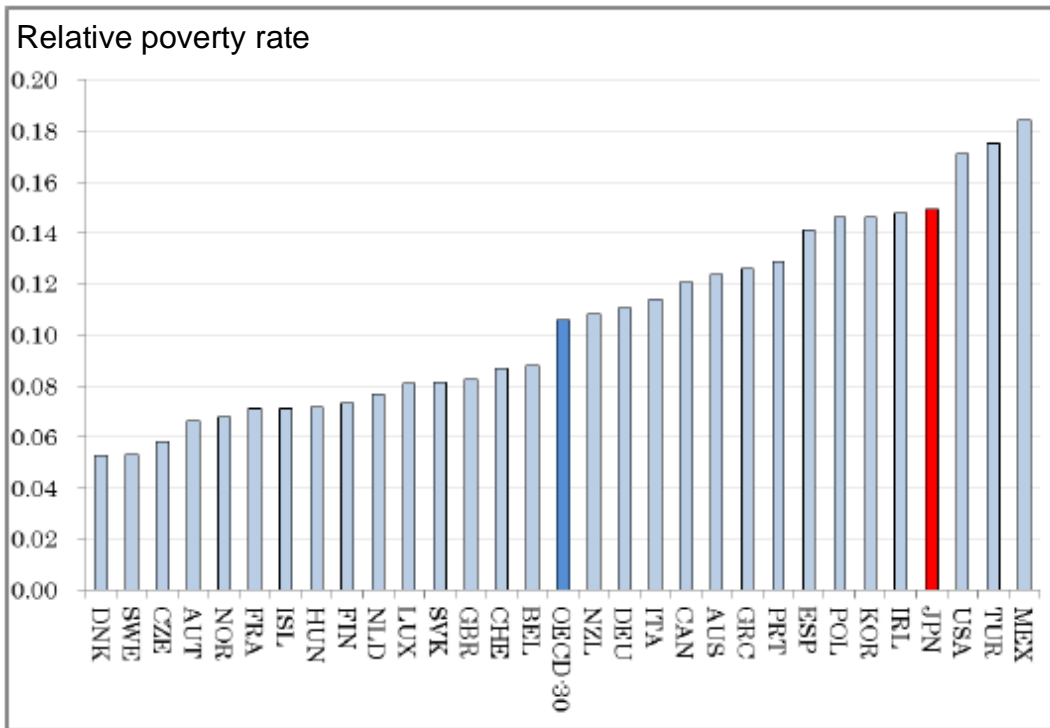
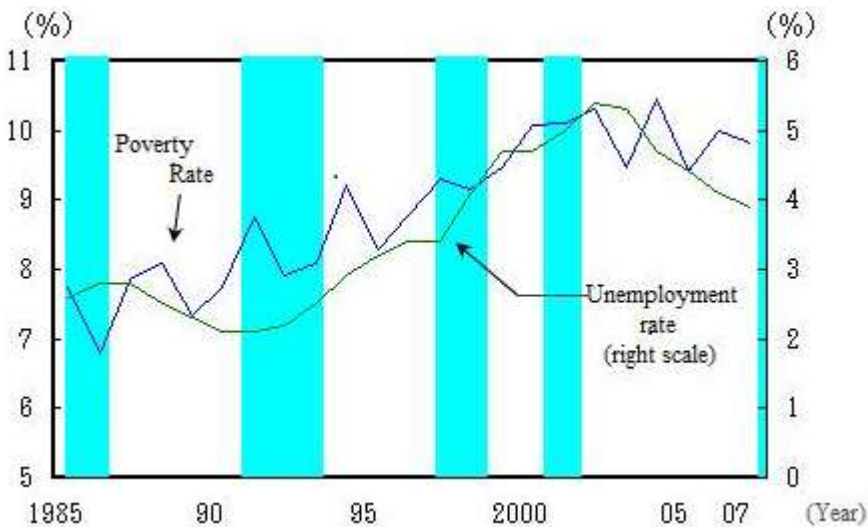


Figure 1. International comparison of relative poverty rate (OECD nations in the mid-2000s)  
Japan is abbreviated as JPN.

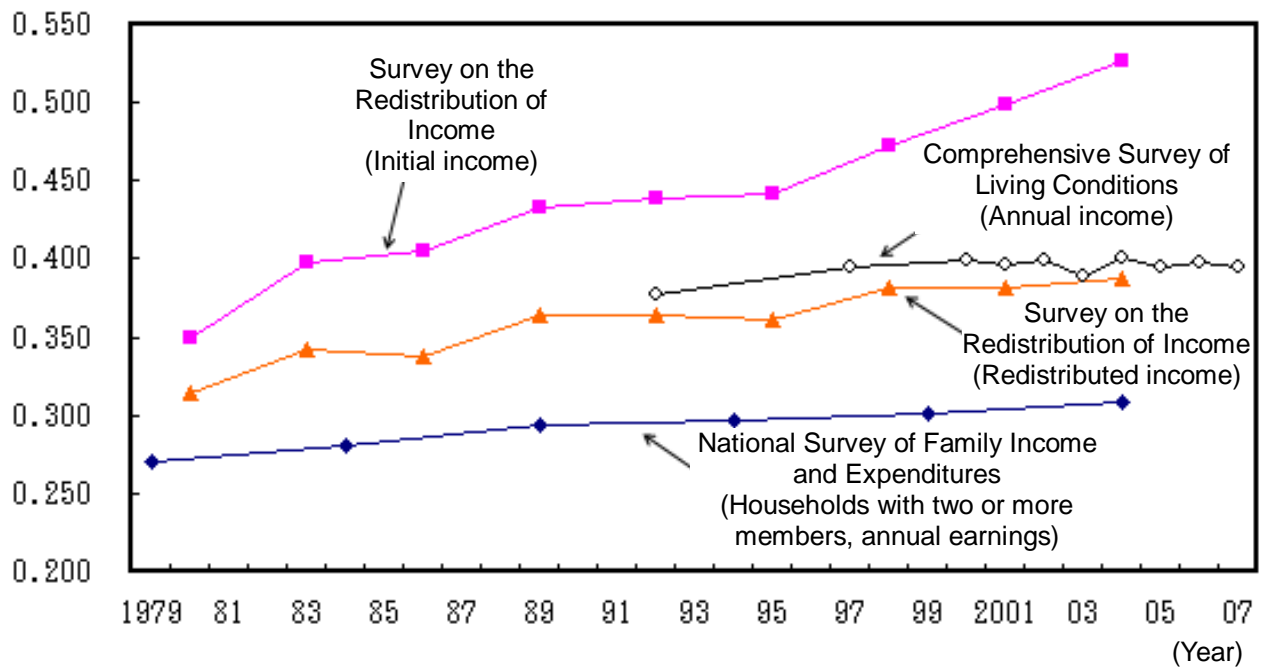
Source: OECD, *Growing Unequal? Income Distribution and Poverty in OECD Countries*, 2008



(Notes)

1. Estimate made by the Cabinet Office, using *Comprehensive Survey of Living Conditions* of the Ministry of Health, Labour and Welfare. Created using *Labour Force Survey* of the Ministry of Internal Affairs and Communications.
2. The poverty rate is calculated as the proportion of individuals with income levels of less than the predetermined threshold (40% of the median), based on the individual income level as equivalent income after division by the square root of the household size for adjustment.
3. The poverty rate using the *Comprehensive Survey of Living Conditions* was captured by estimating the distribution of equivalent income by the household size. The distribution of annual income is estimated based on the uniform distribution of household income in each income class. For a definition of income, see Notes in Figure 3-2-3.
4. Shaded areas refer to recession periods. Note that the latest shadow covers a period until March 2009.

Figure 2. Annual trends in relative poverty rate  
Cited from Reference [9] (Figure 3-2-8).

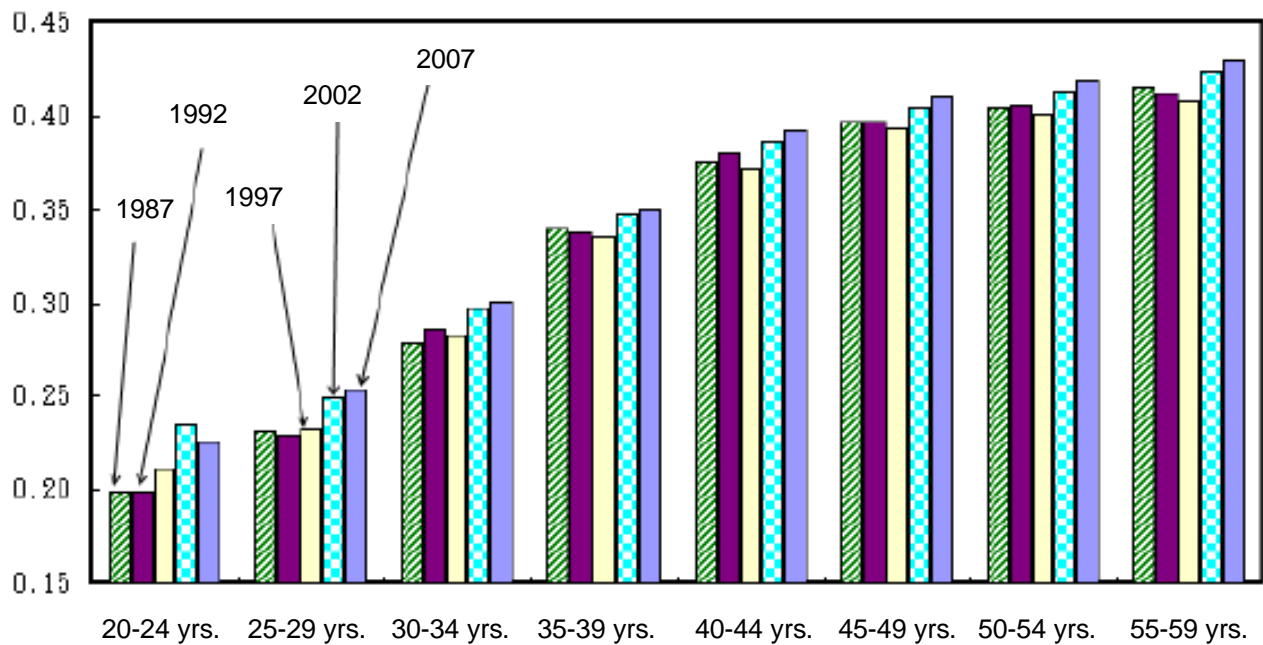


(Notes)

1. Created using the *National Survey of Family Income and Expenditure* of the Ministry of Internal Affairs and Communications, and the *Survey on the Redistribution of Income* and *Comprehensive Survey of Living Conditions* of the Ministry of Health, Labour and Welfare
2. Annual earnings (*National Survey of Family Income and Expenditure*) include wages and salaries, operating earnings, home-work earnings, public pension, agricultural, forestry and fisheries earnings, etc. Income before tax.
3. Annual income (*Comprehensive Survey of Living Conditions*) refers to the total of earned income from January to December each year (employee's income, business income, agricultural and livestock business income, and industrial home-work income), and other income including public pension, property income, employment insurance, other social security benefits, remittances, corporate/personal pension, etc. Income before tax.
4. Initial income (*Survey on the Redistribution of Income*) refers to the total of employee's income, business income, agricultural and livestock business income, property income, industrial home-work income, and miscellaneous earnings, as well as personal benefits (total of remittances, corporate pension, life insurance claims, etc.). Also, redistributed income (*Survey on the Redistribution of Income*) refers to the sum of initial income deducting taxes and social insurance premiums, and social security benefits (including cash benefits).

Figure 3. Annual trends in household income disparities (Gini coefficient)

Cited from Reference [9] (Figure 3-2-3).



(Notes)

1. Created using the *Employment Status Survey* of the Ministry of Internal Affairs and Communications. Employees excluding those who are attending school.
2. Labor income refers to annual gross pretax pay.
3. Calculation of the Gini coefficient is according to Ota (2005)
4. As for income in each classification, for example, those who belong to the classification of 2-3 million yen, the income is deemed the median, 2.5 million yen. Also, for those who belong to the lower end, income of less than 500 thousand yen is deemed 250 thousand yen, and for the upper end, income of 10 million yen or more is deemed 13.5 million yen. Eleven classifications for age groups.

Figure 4. Annual trends in the Gini coefficient by age group among employees

Income disparities are widening in all age groups. Cited from Reference [9] (Figure 3-2-1).

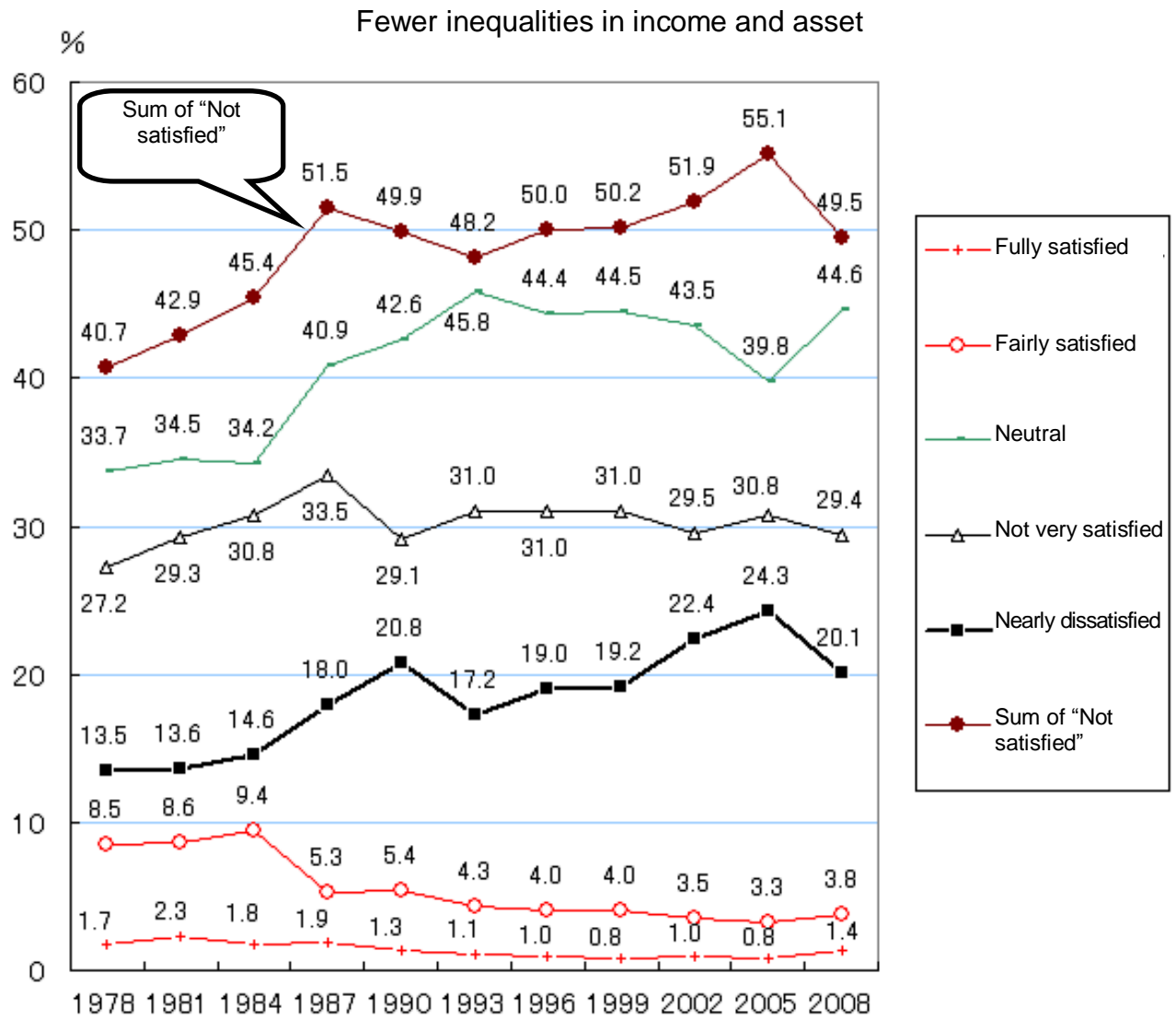


Figure 5. Public awareness about social disparities: Annual trends in the percentage of those who think they are “Not satisfied” about “fewer inequalities in income and assets”

Cited from Reference [10].

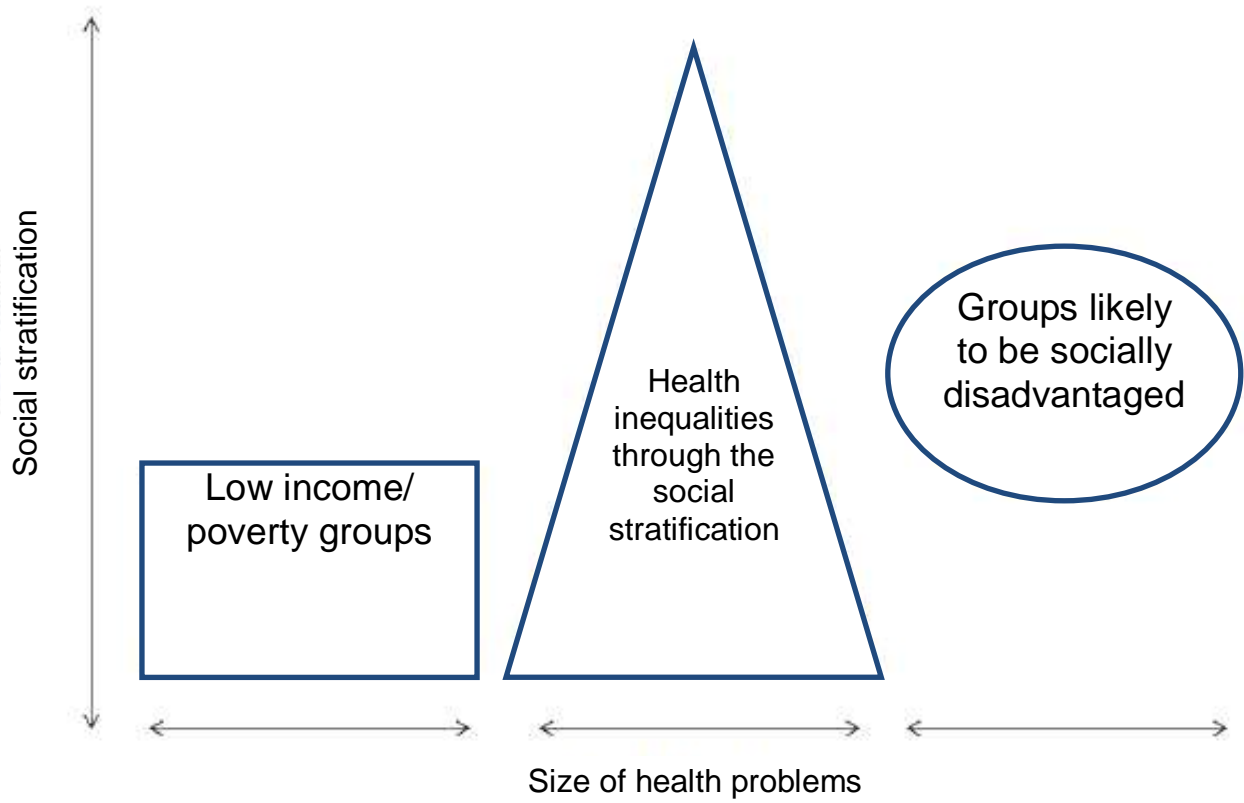


Figure 6. Three perspectives on social disparities in health

There are concerns about health problems in the low income/poverty groups, widening health inequalities through social stratification, and accumulation of health problems in the groups likely to be socially disadvantaged.

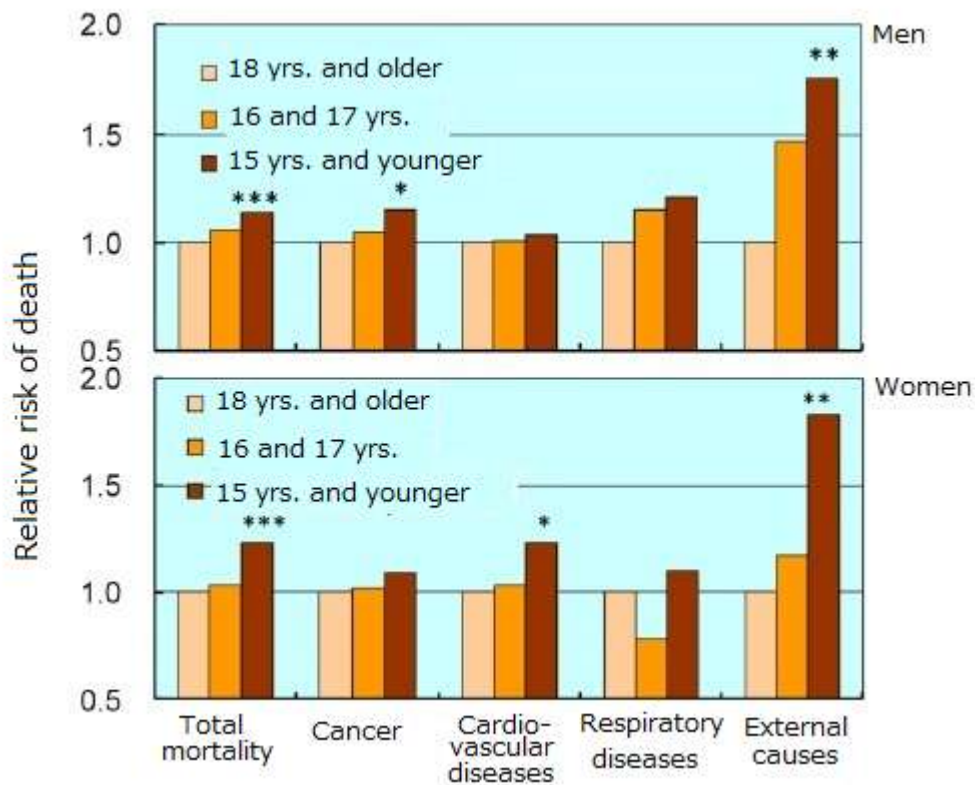


Figure 7. Relationship between Educational Attainment and Mortality

The educational attainment level is classified by the age at which individuals completed their highest level of education. Shows how many times higher the mortality rate is compared with the age of leaving high school (18 years and older) in terms of relative risk. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ . Age, smoking, drinking, and occupation are adjusted. Created using Reference [19].

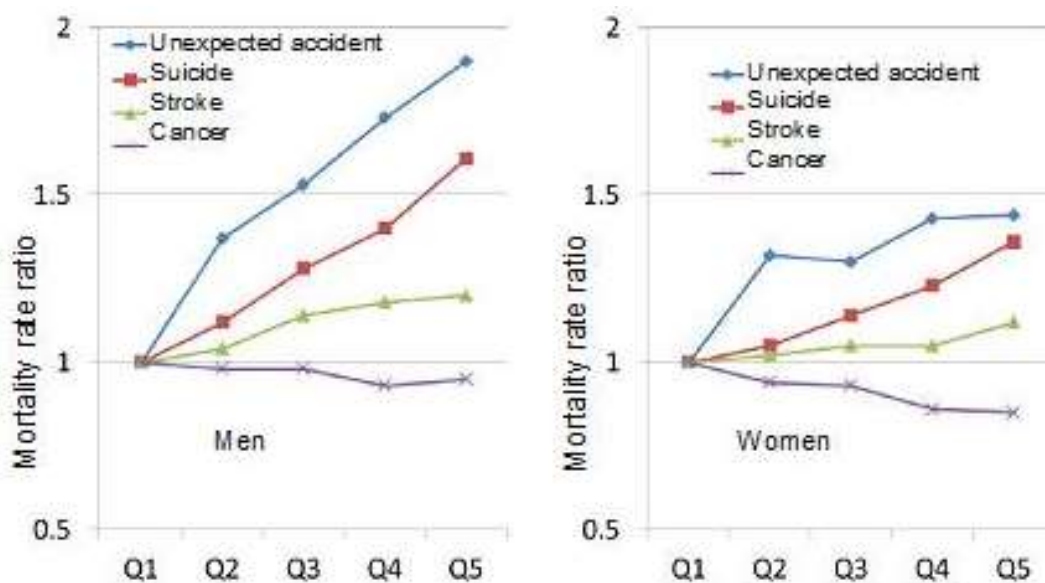


Figure 8. Relationship between regional socioeconomic conditions and mortality rate in Japan

Local municipalities are divided in quintiles using socioeconomic index (Q1: Highest, Q5: Lowest), and the graphs show how many times higher the mortality rate is in other municipalities, using Q1 as a reference. Created using Reference [20].

Table 1. Impact of average income and income disparities (Gini coefficient) on a prefectural basis, and household income on a personal basis on residents' poor subjective health conditions (relative risk) in Japan\*

	Analysis by variables	Analysis using all variables
Prefectural level:		
Residents' annual average income		
Low	1.33(1.2-1.47)	0.79(0.64-0.99)
Lower middle	1.15(1.07-1.24)	0.85(0.71-1.01)
Upper middle	1.15(1.05-1.25)	0.93(0.83-1.04)
High	1.00	1.00
Gini coefficient		
Low	1.00	1.00
Lower middle	1.00(0.92-1.10)	0.99(0.89-1.11)
Upper middle	1.07(0.98-1.18)	1.02(0.90-1.17)
High	1.14(1.02-1.27)	1.13(0.98-1.34)
Personal level:		
Annual equivalent household income		
Less than 1.5 million yen	1.93(1.72-2.15)	1.54(1.37-1.74)
1.5-1.99 million yen	1.48(1.30-1.80)	1.30(1.14-1.49)
2-2.49 million yen	1.38(1.23-1.54)	1.24(1.11-1.40)
2.5-2.99 million yen	1.23(1.09-1.38)	1.23(1.09-1.38)
3-3.99 million yen	1.05(0.95-1.17)	1.08(0.97-1.20)
4-4.99 million yen	1.01(0.95-1.17)	1.04(0.93-1.17)
5 million yen or more	1.00	1.00

\* Each value is the relative risk which indicates how many times more those who answered "Not very good" or "Not good" about their subjective health conditions compared with a reference (prefecture or individual with a high average income, or prefecture with a low Gini coefficient). 95% confidence interval in parentheses. The analysis by the variable shows a lower average income on a prefectural basis and a higher Gini coefficient, and a lower household income on a personal level results in poorer subjective health conditions. The analysis using all variables shows a lower household income on a personal level results in poorer subjective health conditions. Gender, age, marital status, and health screening are adjusted in each analysis.

Created using Reference [21].

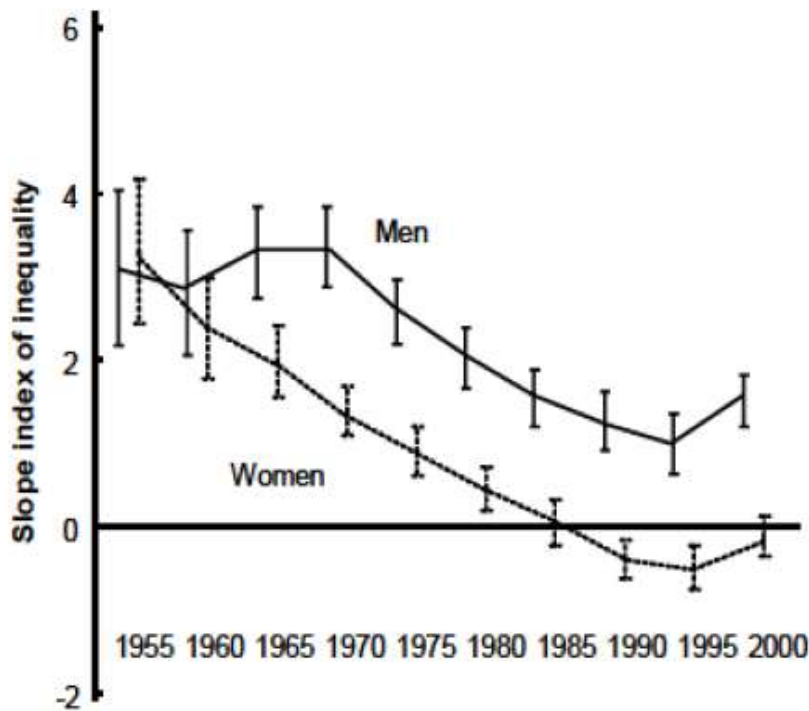


Figure 9. Annual trends in the relationship between average income and life expectancy on a prefectural basis in Japan

The vertical axis (slope index of inequality) represents a degree of relation between average income and life expectancy, and means as a slope number gets bigger toward the positive direction, there is a stronger relation between a higher average income and a longer life expectancy. The relation between the two tended to be weaker until 1990, however it has been stronger again since 1995 when it was the lowest. A vertical line representing 95% confidence interval. Created using Reference [23].

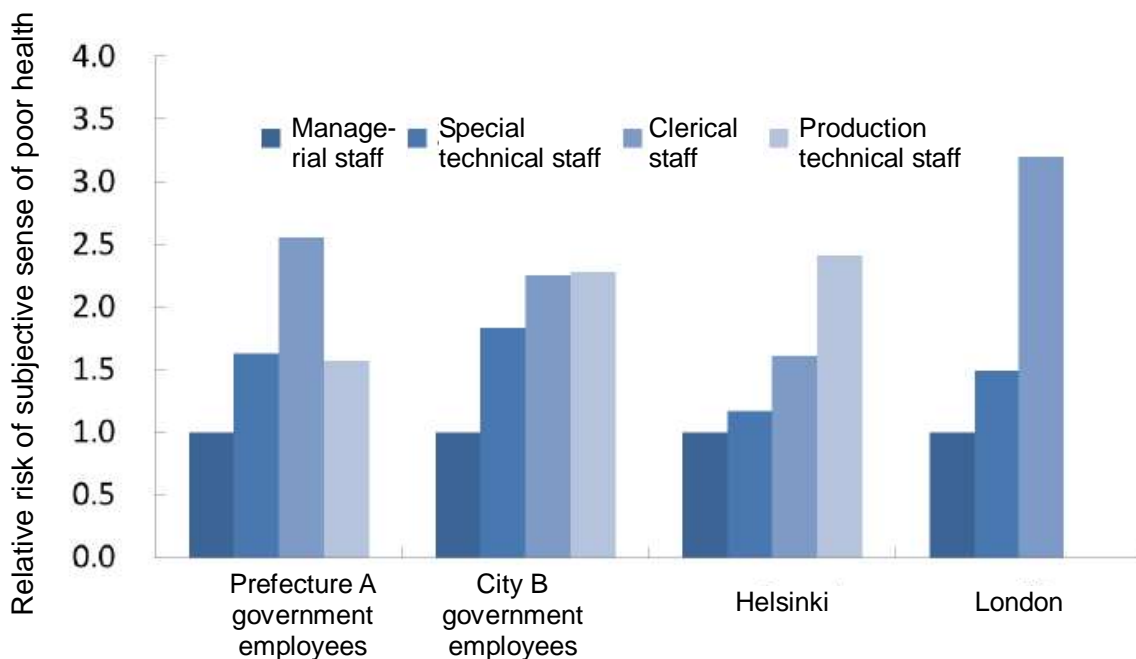


Figure 10. Relation between types of jobs and low subjective sense of good health (sum of “Not good” and “Not very good”) among government employees in Japan and overseas

The graph shows a relative risk which tells how many times higher the proportion of those with a low subjective sense of good health is likely to be in each type of job, when using 1 for managerial staff. Created using Reference [27].



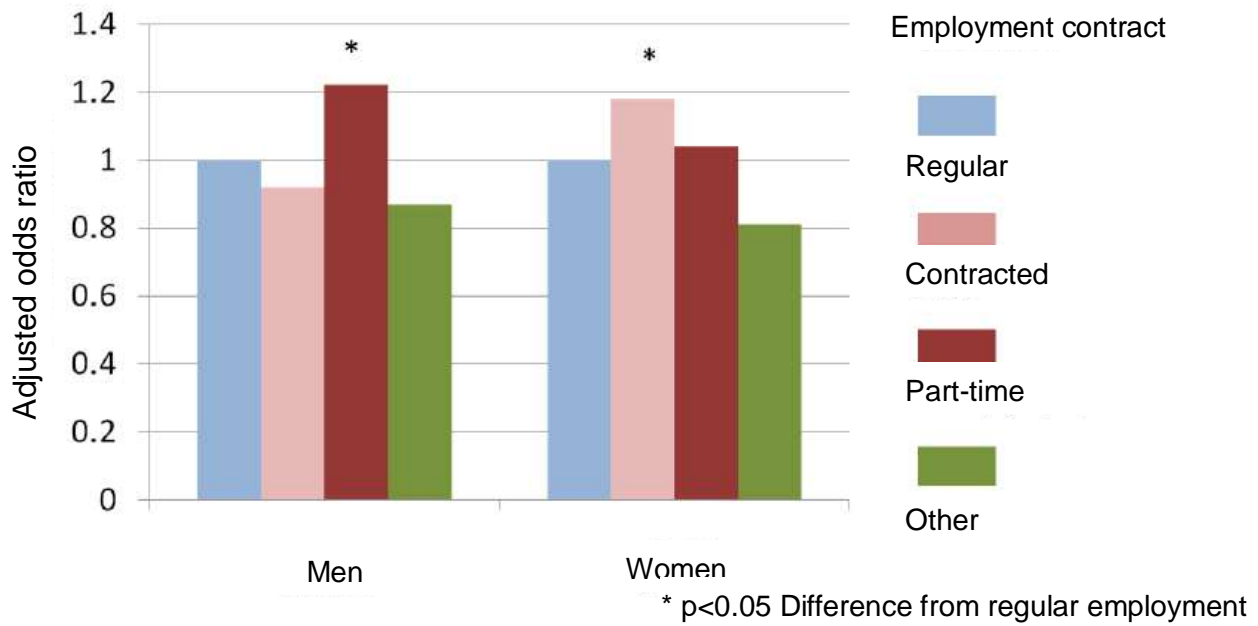


Figure 11. Frequency of psychological stress by employment contract patterns in Japan

The graph shows an odds ratio with basic attributes adjusted, which tells how many times more the frequency of psychological stress of contracted/temporary and part-time workers is likely to be, when using 1 as such frequency for regular employment. Created using Reference [30].

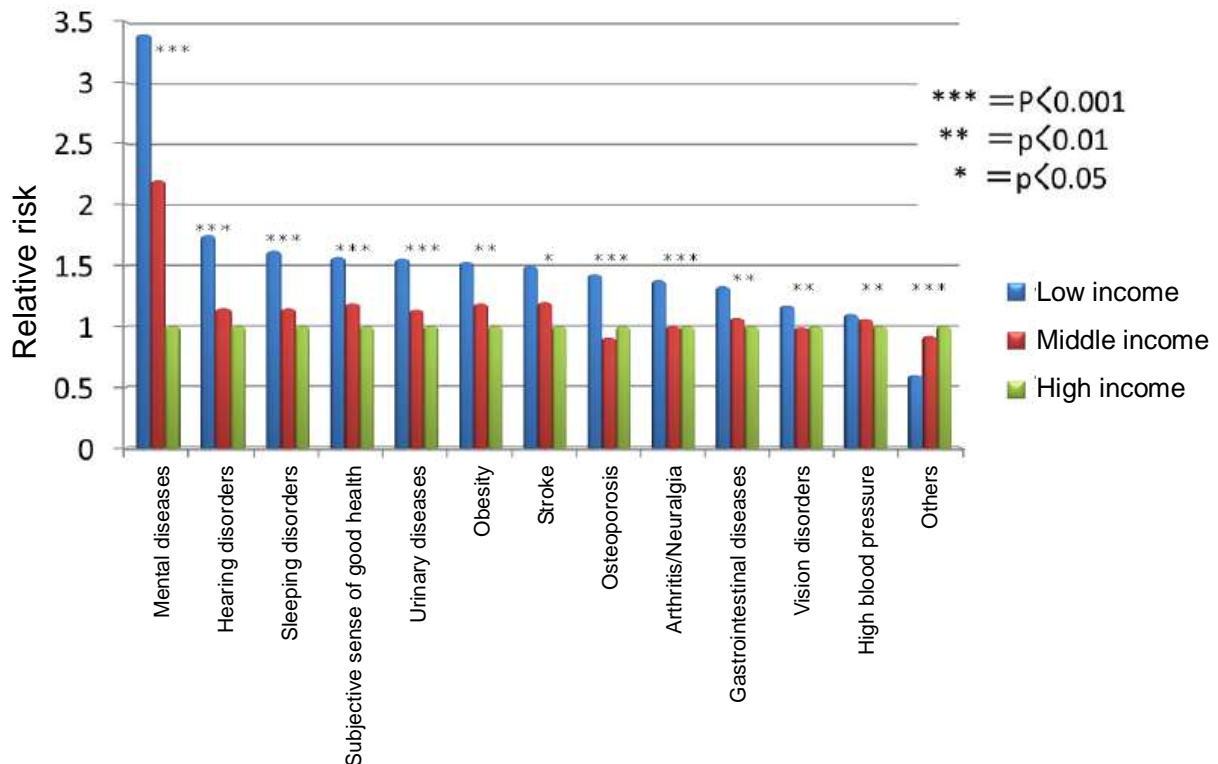


Figure 12. Relation between income and morbidity rate of each disease in a survey of 15,302 elderly persons in Aichi Prefecture

The vertical axis represents how many times more low or middle income persons have diseases compared with high income persons. Income is evaluated based on annual equivalent income, and is classified into three: less than 1.6 million yen, from 1.6 million yen up to 2.5 million yen, and 2.5 million yen or more. Created using Reference [35].

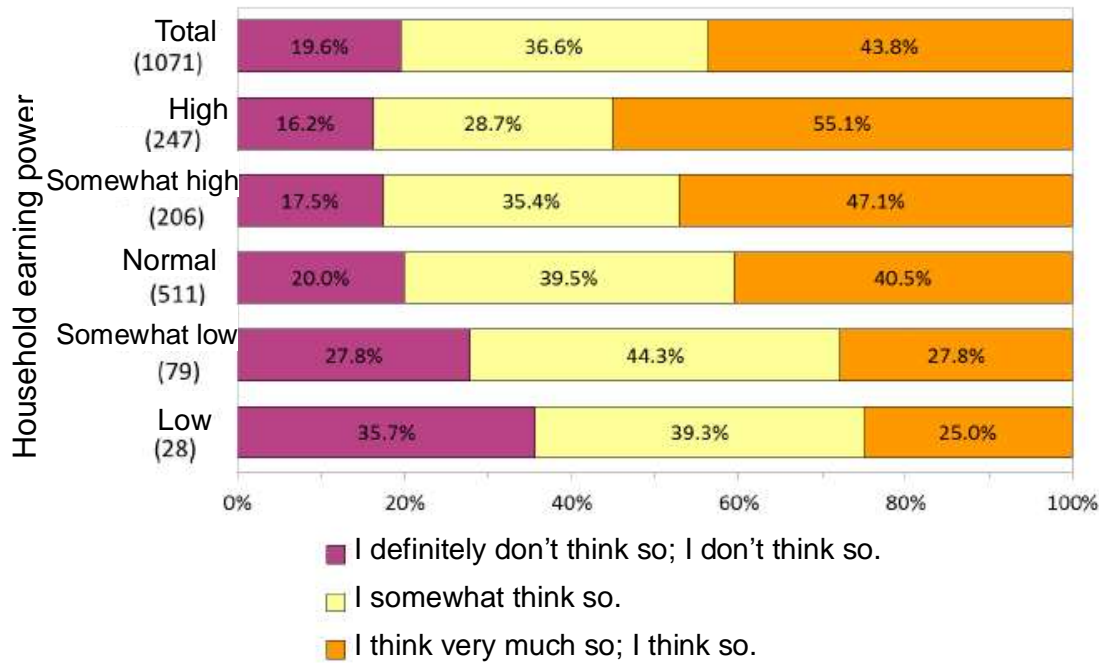


Figure 13. Relationship between household earning power and nurses' evaluation on the quality of terminal care. Data from the survey of home-visit nursing stations (the secondary survey) (1999) is recounted, and the results of reevaluation made by nurses in charge on the quality of care during the process to death in the terminal phase were compared by household earning power. Cases of better quality are observed in groups with more financial capability. Created using Reference [36].

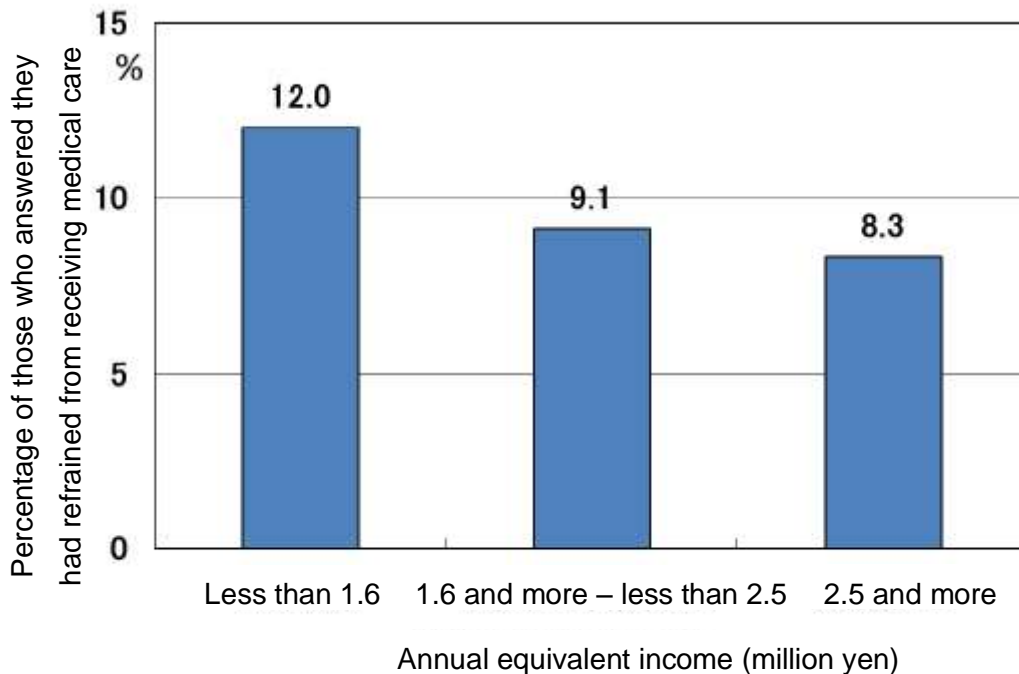


Figure 14. Percentage of those who answered that they had refrained from receiving medical care in the last year in the survey of 15,302 elderly persons in Aichi Prefecture

The percentage of low income persons is higher than those with high income when answering that they had refrained from receiving medical care. This tendency remains the same even after adjustment of other basic attributes. Income is evaluated using annual equivalent income, and classified into: Less than 1.6 million yen, from 1.6 million yen up to 2.5 million yen, and 2.5 million yen or more. Created using Reference [35].

**<Reference 1> The Course of Deliberation of the Joint Subcommittee on Public Health Science of the Committee on Basic Medicine and the Committee on Health/Human Life Science, Science Council of Japan**

2006

March 23 Executive Board of Science Council of Japan (the 10th)  
Establishment of the Subcommittee on Public Health Science

2008

November 27 Selection of members

2009

January 16 Meeting of the Subcommittee on Public Health Science (the 1st)  
Future activities

March 3 Meeting of the Subcommittee on Public Health Science (the 2nd)  
Future activities

July 28 Meeting of the Subcommittee on Public Health Science (the 3rd)  
Preparation of the recommendation by the 21st term Subcommittee on Public Health Science

October 29 Meeting of the Subcommittee on Public Health Science (the 4th)  
The present conditions and issues by theme

2010

January 5 Meeting of the Subcommittee on Public Health Science (the 5th)  
The present conditions and issues by theme

March 23 Meeting of the Subcommittee on Public Health Science (the 6th)  
Planning of symposium

July 30 Meeting of the Subcommittee on Public Health Science (the 7th)  
About symposium

2011

January 28 Meeting of the Subcommittee on Public Health Science (the 8th)  
The composition of the report

February 15 Meeting of the Subcommittee on Public Health Science (the 9th)  
The composition of the report

April 22 Meeting of the Subcommittee on Public Health Science (the 10th)  
The composition of the report

May 12 Meeting of the Subcommittee on Public Health Science (the 12th)  
Draft report

September 1 The Executive Board of Science Council of Japan (the 133rd)  
Approval of the recommendation by the Subcommittee on Public Health Science, entitled "To Understand the Present Conditions of Social Disparities in Health in Japan and Work toward Improvements"

**<Reference 2> The Course of Co-Organizing the Joint Symposiums of the Committee on Health/Human Life Science of Science Council of Japan and Japanese Society of Public Health**

1. The Joint Symposium of Science Council of Japan (the Committee on Health/Human Life Science) and Japanese Society of Public Health

“Issues of Public Health – Disparity Society/Poverty and Public Health”

Venue: The 67th Annual Meeting of Japanese Society of Public Health (Fukuoka)

Time and Date: 17:00-19:30 November 6 (Thurs.), 2008

Chair: Fumihiko Jitsunari (Professor on Faculty of Medicine, Kagawa University,  
Member of Science Council of Japan)

Norito Kawakami (Professor on Graduate School of Medicine, the University of Tokyo,  
Member of Science Council of Japan)

Problems of Health Inequalities and Poverty in Japan – Their Characteristics

Reiko Kishi (Professor on Graduate School of Medicine, Hokkaido University, Council Member of Science Council of Japan)

Issues of Regional Healthcare and Welfare – Especially about Health Inequalities among the Elderly

Katsunori Kondo (Professor on Faculty of Social Welfare, Nihon Fukushi University)

Issues on Labor and Industrial Health – Especially about the Impact on Health of Non-regular Employment

Eiji Yano (Professor on Department of Hygiene and Public Health, Teikyo University School of Medicine)

Issues on Education and School Health – Especially about Disparities in Academic Performance

Hiroyuki Takahashi (Professor on Faculty of Education, Chiba University)

Administrative Efforts and Issues – Expectations on Regional Health Activities and Public Health Centers

Izumi Shibuya (President of Japanese Association of Public Health Center Directors (Director of Handa Health Center, Aichi Prefecture))

2. The Joint Open Symposium of Science Council of Japan (the Subcommittee on Public Health Science of the Committee on Basic Medicine and the Committee on Health/Human Life Science) and Japanese Society of Public Health

“Social Disparities and Health – For Measures against Important Issues of Public Health

Venue: The 68th Annual Meeting of the Japanese Society of Public Health (Nara)

Time and Date: 18:00-20:00 October 21 (Wed.), 2009

Chair: Katsunori Kondo (Professor at Nihon Fukushi University), and Reiko Kishi (Council Member of Science Council of Japan)

Welcome by Science Council of Japan

Reiko Kishi (Professor on Department of Public Health, Graduate School of Medicine, Hokkaido University, Council Member of Science Council of Japan, Chairperson of the Subcommittee on Public Health Science of the Committee on Basic Medicine and the Committee on Health/Human Life Science)

Unwavering Facts of Social Disparities and Health, and the Measures – Final Report of the WHO Commission on Social Determinants of Health

Hideki Hashimoto (Professor on Department of Health Economics and Epidemiology Research, School of Public Health, the University of Tokyo)

Regional Health Activities Focusing on Social Disparities

Keiko Chujo (Public health nurse in charge of maternal and child health/single-mother families at Kyoto City Yamashina Health Center)

International Comparison of Health Inequalities Resulting from Socioeconomic Factors – Psychosocial Stress and the Role of Health Risk Behavior

Michikazu Sekine (Associate Professor on Department of Welfare Promotion and Epidemiology, Graduate School of Medicine and Pharmaceutical Science for Education, University of Toyama)

Possibilities and Issues of Health Impact Assessment

Yoshihisa Fujino (Associate Professor on Department of Public Health, School of Medicine, University of Occupational and Environmental Health, Japan)

Designated Speech

Response of Japanese Society of Public Health

Norito Kawakami (Vice-chairperson of the Committee on Public Health Monitoring and Report of Japanese Society of Public Health)

**<Reference 3> The Open Symposium on Social Disparities and Health, Organized by the Joint Subcommittee on Public Health Science of the Committee on Basic Medicine and the Committee on Health/Human Life Science, Science Council of Japan “Social Disparities in Health – Drawing on Diverse Collective Wisdom toward a Comfortable Society for All”**

## Social Disparities in Health – Drawing on Diverse Collective Wisdom toward a Comfortable Society for All

Time and Date: 1:00-5:00 pm July 30 (Fri.), 2010

Venue: Science Council of Japan Auditorium

Interest in health inequalities due to socioeconomic conditions has been mounting. In addition to problems of health and access to medical care among those who are less likely to be protected by social systems, including the poor, unemployed persons, and non-regular employees, concerns are also spreading over widening social disparities in health among children and the elderly, and health and life of the disabled under the economic slump. This symposium comprehensively clarifies present conditions and issues related to such disparities from the viewpoints not only of the healthcare field but welfare, sociology and other fields, and discusses measures to build a society in which a variety of people can live together in good health.

Organized by: The Joint Subcommittee on Public Health Science of the Committee on Basic Medicine and the Committee on Health/Human Life Science, Science Council of Japan

Co-Organized by: The Subcommittee on Social Surveys of the Committee on Sociology/Social Welfare, the Joint Subcommittee on the Multilateral Deliberation on Inclusive Social Policies of the Committee on Sociology/Social Welfare and the Committee on Economics, the Research Project “Elucidation of social stratification mechanism and control over health inequality in contemporary Japan: New interdisciplinary area of social and health sciences” (abbreviated as the Project “Social Stratification and Health”) funded by the Grant-in-Aid for Scientific Research on Innovative Areas from the Ministry of Education, Culture, Sports, Science and Technology

Chair: Norito Kawakami ( Member, Member of the Joint Subcommittee on Public Health Science of the Committee on Basic Medicine and the Committee on Health/Human Life Science, Head Investigator of the Project “Social Stratification and Health” funded by the Grant-in-Aid for Scientific Research on Innovative Areas from the Ministry of Education, Culture, Sports, Science and Technology, Professor at the Graduate School of the University of Tokyo)

Seiji Yasumura ( Member, Member of the Joint Subcommittee on Public Health Science of the Committee on Basic Medicine and the Committee on Health/Human Life Science, Professor at Fukushima Medical University)

### Timetable

13:00-13:10	Opening remarks
13:10-13:40	<b>1 Problems of Health Inequalities and Poverty in Japan: Characteristics and Issues</b> Reiko Kishi (Section II Council Member, Chairperson of the Joint Subcommittee on Public Health Science of the Committee on Basic Medicine and the Committee on Health/Human Life Science, Director and Professor of the Center for Environmental and Health Sciences, Hokkaido University)
13:40-14:10	<b>2 Problems of Social Disparities and Health Inequalities Seen from Social Surveys in Japan</b> Kazuo Seiyama (Member, Chairperson of the Subcommittee on Social Surveys of the Committee on Sociology/Social Welfare, Professor at the Graduate School of the University of Tokyo)
14:10-14:40	<b>3 Health Inequalities and Japanese Children’s Health Promotion</b> Fumihiko Jitsunari (Member, Chairperson of the Subcommittee on Children’s Health of the Committee on Health/Human Life Science, Vice President of Sanyo Gakuen University)
14:40-15:00	Recess
15:00-15:30	<b>4 Disparities in the Well-Being of the Elderly</b> Katsunori Kondo (Professor at Nihon Fukushi University)
15:30-16:00	<b>5 Consideration of Comprehensive Programs against Widening Health Inequalities</b> Takehito Takano (Member, Member of the Joint Subcommittee on Public Health Science of the Committee on Basic Medicine and the Committee on Health/Human Life Science, Director of WHO Collaborating Centre for Healthy Cities and Urban Policy Research, and the Alliance for Healthy Cities (AFHC), Professor at the Graduate School of Tokyo Medical and Dental University)
16:00-16:30	<b>6 Social Disparities in Medical Care/Health and Roles of Medical Policies</b> Ryu Niki (Member, Member of the Joint Subcommittee on the Multilateral Deliberation on Inclusive Social Policies of the Committee on Sociology/Social Welfare and the Committee on Economics, Vice President and Professor of Nihon Fukushi University)
16:30-17:00	General Discussion

# Overview of Lecturers

## 1 Problems of Health Inequalities and Poverty in Japan: Characteristics and Issues

Reiko Kishi (Director and Professor of Hokkaido University Center for Environmental and Health Sciences)

Since 1995 when Japanese Management in the New Era was released, the structure has collapsed in which the government protected industries, businesses guaranteed the employment of male breadwinners, and men fed their wives and children, and a situation has emerged where even non-regular employees have to support family finances. The working poor problem was exposed in 2006, and workers who had lost their jobs and homes stood in line at a tent village at the year-end of 2008. Japan has a high relative poverty rate, 14.9%, after the U.S. A major gap in the amount of pension and savings among the elderly persons contributes to an increase in the poverty group in this country, causing a higher Gini coefficient with changes in the demographic structure. In addition, the ratio of non-regular employees is the highest among OECD countries, and furthermore, unlike EU nations, because Japan has not ratified the ILO Part-Time Work Convention, various rights including pension and insurance remain unfavorable. With a conventional structure in which men feed their wives and children, a barrier exists for homemakers who work as regulating valves for the economy within the limits eligible for allowances for dependents and marital deductions. Female workers' low wages and youth poverty tend to be concealed, causing single-working-mother households to be have the worst situations. Meanwhile, Japan has conventional problems of death from prolonged overwork, as well as continuing workers' compensation claims for overwork-related cardiovascular diseases, and depression and suicides are increasing. With polarization in working hours, the ratio of permanent employees who work 60 hours or more a week exceeds 25%. What is peculiar in this country is that specialist personnel and managerial staff (e.g., teachers and physicians) overwork upwards of 60 hours a week on average, which differs from disparities due to social stratification in Europe and the U.S. After the House of Councilors election, what kind of country does Japan strive to be? An ambiguous situation continues to lie ahead of us. The government, however, which has steadily provided vocational training programs, childcare services, lifelong education for relearning, and pension coverage and employment security during the period of vocational training, has balanced economic growth and stable fiscal revenue/expenditure, maintained social sustainability, and continued reforming education, medical care, nursing care, environment, gender gap, and labor. Although we have diversified challenges, the only way for us to find measures to solve them will probably lie in determining how the new social system should be, which overcomes barriers of men versus women, regular employment versus non-regular employment, and unemployment versus employment, in a position to protect human rights, health, and the environment.



## 2 Problems of Social Disparities and Health Inequalities Seen in Social Stratification Studies

Kazuo Seiyama (Professor at the Graduate School of Humanities and Sociology, the University of Tokyo)

In the tradition of stratification studies in sociology, interest in health inequalities had been next to nothing for a long time. With regard to Japan's national survey of social stratification and social mobility which started in 1955, it was not until the 2005 survey that questions about health conditions were included in the questionnaire. Also, a search of the Bibliography of Japanese Sociology of the Japan Sociological Society leads to no hits of publications for the keywords, "health and disparities." This situation in Japan is almost analogous to that in sociology in the U.S. With this being said, there is no doubt that an interest in health and disparities in terms of stratification studies has been increasing since 2000.

Looking at health and disparities in terms of the stratification theory, the basic interest in problems is how opportunities for health differ depending on social stratification, and what the mechanism is like, but what seems more important in theory is an argument that "a society with a higher degree of inequality has poorer health conditions." The argument that instead of hierarchical positions on a personal level, a degree of inequality beyond individuals, i.e., the nature of the macroscopic social structure, affects health conditions on a personal level has extremely important implications both in the sense of sociology and policies. In conventional stratification studies, a common-sense judgment was made that a degree of hierarchical inequality is generally preferable when it is lower, but arguments or theories that a degree of inequality itself affects people's welfare were nearly non-existent. The fact that such arguments constitute one of the central themes in studies on health and disparities poses an important issue for social stratification studies.

From the perspectives mentioned above, this lecture discusses what new findings and points of arguments have been raised to general issues of social hierarchical inequalities by the problems of health and disparities.





### 3 Health Inequalities and Promotion of Japanese Children's Health

Fumihiko Jitsunari (Member, Chairperson of the Subcommittee on Children's Health of the Committee on Health/Human Life Science, Vice President of Sanyo Gakuen University)

With difficulty being independent during infancy, children should be nurtured by their family or at home, grow and develop to be healthy while being guarded by the society and environment, and the basis for the promotion of health throughout a lifetime should be built, however health inequalities occur everywhere because of various effects of the family/home, and social and environmental factors on children. In response, the Constitution of WHO, the Universal Declaration of Human Rights, the Convention on the Rights of the Child, and the Constitution of Japan stipulate that all persons are assured of equal enjoyment of health without any discrimination due to social factors, and mothers and children have a right to receive special protection and assistance. As results of improved administrative measures, laws and systems, approaches including healthcare and welfare activities, dietary education, physical activities and health education in communities, and efforts in child-rearing at home and by local communities, Japan has attained the world's highest level regarding infant mortality rate and life expectancy. However, today's Japanese children are not necessarily in favorable conditions in terms of mental and physical health, healthy daily life, high quality of life, or happy life. Recently the Subcommittee on Children's Health of Science Council of Japan conducted investigations on health of children today covering 16 fields (living environment, prenatal period/infancy, measures to prevent infectious diseases, childcare environment, prevention of abuse, oral health, dietary education, play, physical exercise, mental health, sexual behavior, dangerous behavior, safety promotion, development disorder, health/sanitary education, and poverty/disparity society), and compiled a total of 56 items of issues and proposals, which the subcommittee released as a report entitled "Promotion of Health among Japanese Children." There were crisis situations observed embracing many problems including the relative poverty rate, especially the progression of poverty of single-mother or -father families, abuse and crime victimization, distorted living habits, and increased bullying, snapping and school truancy, and cases of regional disparities unfolded, the tendency of polarization suggesting the progression of societal disparity in academic performance, physical capacity and dental health, children unable to eat meals because of economic conditions, uninsured children, and children without access to medical care and checkups. Epidemiological research suggests that the family environment and socioeconomic and psychological environment impact children's living habits, educational opportunities, and sense of good health, and that social disparities related to health are widening, causing apprehension about fixed disparities. The challenge for the poverty/disparity society is to implement measures against children's poverty and measures to redress disparities in the entire society so that they can have hope, and safe, secure and healthy lives. In seeking to solve modern health-related challenges including the above, holistic and comprehensive efforts with the following six pillar measures are critical under the principle of health promotion: to promote healthy public policies and improve the system; to create a supportive social environment relating to health; to enhance the social network and local activities for health; to reinforce children's personal skills and capabilities to control their own health; to promote research and the establishment of an organization for health development; and to promote local health promotion centered on schools.



### 4 Disparities in the Well-Being of the Elderly

Katsunori Kondo (Professor on the Faculty of Social Welfare at Nihon Fukushi University/Director of the Center for Well-Being and Society)

While Japanese elderly persons have attained the longest life expectancy in the world, there are disparities observed in their well-being. This lecture introduces the actual conditions and causes of these disparities and some of the clues to the measures, unveiled in the AGES (Aichi Gerontological Evaluation Study) project (n = 32891).

【Actual conditions】 Starting with the fact that depression is five times more common in a low income group than a high income group, it was discovered that more people are unhealthy in lower social classes, i.e., the health inequalities being observed, in many indices including voluntary shut-in, number of teeth left, history of falling, and insomnia. This may reflect a reverse causality in which their original disabilities lead to a lower income, however a longitudinal follow-up study only for those not certified as being in need of nursing care also confirmed the existence of health inequalities, i.e., the rate of newly receiving a certification being double, and the men's mortality rate being three times as high.

【Causes】 The above conditions arise from a mix of factors, such as a living habit undesirable for health, no health screening received, many stressful life events, a large number of accumulated risks of requiring nursing care mentioned above, and refraining from seeing a doctor even though they felt they needed to. Also, it is suggested that the life course works as a contributor to these conditions, which is seen in different rates of depression observed after retirement depending on occupation during active years.

【Clues to the measures】 As a longitudinal study confirmed that persons with wider varieties of hobbies, more occasions to go out, and more interpersonal exchanges are less likely to be in the state requiring nursing care, intervention studies have been conducted to increase such occasions. As WHO states, comprehensive measures are required due to a wide range of causes of the disparities.

【Publications】 *Verification of Health Disparity Society—A Large-Scale Social Epidemiological Study toward Nursing Care Prevention*, compiled by Katsunori Kondo (Igaku-Shoin, 2007)  
*Surviving Health Disparity Society*, authored by Katsunori Kondo (Asahi Shimbun Publications, 2010)



## 5 Consideration of Comprehensive Programs against Widening Health Inequalities

Takehito Takano (Member of Science Council of Japan, Director of WHO Collaborating Centre for Healthy Cities and Urban Policy Research, and the Alliance for Healthy Cities (AFHC), Professor at the Graduate School of Tokyo Medical and Dental University)

Social disparities are linked to health inequalities. Many study results have already demonstrated that it is true. The depth of this relationship between the health levels and the socioeconomic living environment factors depends on eras, regions, and domestic conditions in each country. While in some cases wider disparities in socioeconomic factors may lead to wider health inequalities, this does not take place in other cases.

Socioeconomic factors have a close mutual relationship with each other, and the problem structure is complicated and widespread. Although it is possible to point out a big problem encompassing the society, it is difficult to present how to solve it.

In recent years, however, efforts have been raised to minimize health inequalities arising from disparities in socioeconomic factors as much as possible in the current situation, and the framework to make effective use of such efforts has been presented. One of them is the Healthy City Project, basically a civil movement. Some projects develop in collaboration with a local administration, and others rather lead the administration. Their characteristics are that they are taken up by many different cities around the world, have accumulated experiences, and are presenting a model as a comprehensive regional health program. In addition, international networks have been developing, being proposed and supported for deployment by World Health Organization (WHO). Moreover, they are also characterized by planning and activity programs built upon scientific evidence and accumulated experiences. Activity projects and scientific studies are interactive, and the unity tends to be further enhanced in the future.

How, then, can the impact of socioeconomic factors on the level of health be mitigated? This lecture introduces specific cases of activities and study results in cities both inside and outside Japan, taking factors such as income, education, and employment as examples, for reference for civic participation efforts which take advantage of academic results.



## 6 Social Disparities in Medical Care/Health and Roles of Medical Policies

Ryu Niki (Vice President of Nihon Fukushi University)

To sever the vicious cycle of diseases and poverty (i.e., social disparities in health, in modern parlance) was one of the origins of the Japanese medical care (security) policies which started before World War II. With the Japanese medical insurance system being a mosaic segregated by occupations and regions, however, this vicious circle—at least social disparities in access to medical care—continued even after the realization of the universal health insurance system in 1961.

The First Year of Welfare (free medical care for the elderly, and the introduction of a high-cost medical care benefit system) initiated in 1973 considerably improved such disparities. The world's most rigorous policy for medical care cost containment implemented for a quarter-century starting in the first half of the 1980s under the banner of finance reconstruction made the universal insurance system fray around the edges, however, and social disparities in access to medical care (and in health as well, probably) started to widen again. For example, the medical consultation rate of the households with a certificate of eligibility (de facto, those uninsured) among those who enrolled in the national insurance system is surprisingly one hundredth of the general households covered by insurance (according to the Japanese Medical and Dental Practitioners for Improvement of Medical Care).

While the complete (in principle) ban lifting theory for mixed medical care services advocated in the medical care reform during the Koizumi administration from 2001 to 2006 introduced market mechanisms in the medical field and restricted the coverage of medical insurance benefits to basic services, it publicly claimed that “high income persons would purchase medical services as freely as they do in the U.S.,” that is the introduction of social disparities in access to medical care. The complete (in principle) ban lifting theory for mixed medical care services receded under the Fukuda and Aso administrations, but rather unexpectedly, it has been partially reemerging in a part of the DPJ-led government launched in 2009 (the primary report by the Subcommittee on Regulatory and Institutional Reforms of the Government Revitalization Unit, and the report by the Medical Industry Working Group of the Ministry of Economy, Trade and Industry).

Therefore, the ultimate option for the future medical care policies may be whether to expand the overall range of public medical expenses and promote equal consumption of medical care to reduce social disparities in health, or to promote hierarchical consumption of medical care, which has already occurred partially, to widen health inequalities.

