Special Feature

Collaborative Work among Healthcare Professionals and
the Regeneration of Hospital Care
Tsuneo SAKAI

Reaching toward a Bright Future for the Japan Hospital Association (JHA)—Healthcare Cost Reduction Policy Breakthrough
<A local hospital director’s efforts>
Kimio HENMI
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Japan Hospital Association is committed to contributing to society by enhancing hospital services in Japan.

This journal introduces the activities of the Association and healthcare in Japan to the world.

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I feel the weight of my responsibility as the association prepares to mark its 60th anniversary next year and recognize the importance of focusing my energies on meeting the needs of JHA member hospitals. It is my hope to provide the caliber of leadership that serves to advance the role and effectiveness of the JHA as we move into the future while upholding the high ideals and traditions of those who have guided the JHA over the past 60 years.

Our healthcare system is collapsing around us, and hospitals in particular are facing severe challenges in their bid to continue providing adequate services as changes in our nation’s leadership have caused uncertainty for the future of our community. It is time, therefore, for the JHA to set its sights on the regeneration of hospital care as an organization representing the needs of a membership that is diverse and which exhibits different characteristics in terms of the parent organizations involved, type of healthcare offered, scale, and location.

Keeping in mind what member hospitals require from the JHA, what patients treated at member hospitals require from the JHA, and what the government expects from the JHA, we need to pursue evidence-based projects. Of course, it is impossible to achieve results in a short period of time, so we are striving to show step-by-step progress toward improvement. The association’s goals are spelled out in the article of incorporation; however, because it is difficult to cover everything, it is necessary for us to narrow our priorities.

This year, the activities of the association’s committees will focus on 1. The regeneration of hospital care; 2. An examination of the healthcare insurance and fee systems; 3. Approaches to the improvement of healthcare and safety; 4. The cultivation of human resources; 5. Promoting the provision of information; 6. Approaches for implementation of the new public-interest corporation; 7. Reorganization of hospital organizations; 8. Commemorative projects to celebrate the JHA’s 60th anniversary; and 9; Enhancement of the secretariat. Among these activities, we consider three items to be high-priority issues: (1) The cultivation of human resources to ensure the quality of healthcare services and the promotion of hospital management efficiency, (2) The regeneration of regional healthcare through regional cooperation, and (3) The gathering and disseminating of information. Hospitals are groups of specialists. These specialists are required to acquire specialized knowledge and skills. In addition, it is also important to cultivate human resources to ensure the quality of healthcare services and improve the efficiency of hospital management.

It is often said that healthcare is a regional industry, and because of this we need to consider the provision of seamless healthcare through cooperation suitable for each region not only from the macroeconomic perspective, but also from the microeconomic perspective. There is an asymmetry of information between patients and care providers, and unfortunately, there is also an asymmetry of information between the executive office and JHA member hospitals. We need to visualize information. We need to examine what data are required, and collect and analyze such data for the benefit of member hospitals. We must also consider the need and potential for the creation of a database from which policy proposals can be made.

I am counting on your support as the JHA moves forward into the future.
Chairperson (Dr. Yamada): We now move to the President’s address.

Please allow me to introduce Tsuneo Sakai, President of Japan Hospital Association. Dr. Sakai graduated from the medical department of Chiba University in March 1970. He attended New York State University at Syracuse, New York, in 1979 and graduated from the State University of New York Upstate Medical University Graduate School in 1987. He completed his internship at United States Army Medical Center at Camp Zama in 1970. After finishing a residency in neurosurgery in the U.S., he joined the Hamamatsu University School of Medicine Department of Neurosurgery in 1979, assumed the position of Assistant Director of Seirei Mikatahara General Hospital in 1981, and assumed the position of Assistant Director of Seirei Hamamatsu General Hospital from 1992. Since 1996, he has held the position of Director of Seirei Hamamatsu General Hospital.

As you are all well aware, he is currently President of the Japan Hospital Association. He also devotes his time and energy to other organizations. Now, however, in the interest of time, please welcome Dr. Sakai.

Dr. Sakai: Thank you so much for your kind introduction, Dr. Yamada. Today, I would like to talk about “collaborative work among healthcare professionals and the regeneration of hospital care.”

(Slide 1) First of all, please allow me to give you a rough outline of my address. I want to summarize the issues hospitals are currently facing and consider what we can and should do for the regeneration of hospital care. I would then like to take advantage of this opportunity and talk about what the Japan Hospital Association might do in response to the situation at hand.

- **Issues hospitals are currently facing**
  - Hospitals cannot make decisions alone.
  
  (Slide 2) There are various issues that hospitals currently face and need to deal with. As you already know, however, healthcare involves more than just the professionals who provide it. Decisions affecting the healthcare system also involve the society which it serves, the public as well as the government at national and local levels all providing input and guidance in the form of instructions and regulations. Hospitals alone are not in a position to make decisions that will affect the direction of healthcare; and even with recent government initiatives designed to improve the situation, hospitals still find themselves facing severe conditions with no relief in sight.

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**Main Points**
- Issues hospitals are currently facing
- Regenerating hospital care
  - Basic role of healthcare
  - Role of each organization
- What the Japan Hospital Association has planned
- Conclusion

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Seminar Chairman:
Chairperson & Director, Kizawa Memorial Hospital
Director, The 60th JHA Congress
Jitsuhiro Yamada
Treatment and management are both important.

As Dr. Yamada has said, the quality of treatment is and should be the primary priority at any hospital. The quality of management, however, cannot be ignored without considerable risk. Indeed, it goes almost without saying that no matter how high its quality of care is, a hospital that continues to run a significant deficit cannot avoid the risk of bankruptcy and the possibility of being forced to close its doors. Thus it might even be said that the quality of treatment and the quality of management go hand in hand.

Hospitals are in financially unsustainable condition.

The Japanese government often brings up financial sustainability in medical care. However, hospitals are in fact in unsustainable financial condition. According to FY 2009 hospital management statistical data, for example, 68.8% of hospitals are operating at a deficit. Indeed, it goes almost without saying that no matter how high its quality of care is, a hospital that continues to run a significant deficit cannot avoid the risk of bankruptcy and the possibility of being forced to close its doors. Thus it might even be said that the quality of treatment and the quality of management go hand in hand.

Reason for this is that medical treatment fees are too low. I suspect that all of you here are experiencing the reality of this situation on a daily basis as you work hard to deliver the best care under trying conditions.

The cost of running a hospital can be divided into three categories: basic, ordinary, and indirect expenses. Basic expenses include the cost of hospital construction and the purchase of equipment. Ordinary expenses include the cost of examination and testing, diagnosis, and treatment, which also includes medicine. Indirect expenses include the cost of very important areas such as continuing professional development and improvement that allows healthcare providers to remain current, as well as other needs, as was seen in the example of Kizawa Memorial Hospital. Unfortunately, income generated by medical treatment covers only ordinary expenses and a part of basic expenses. While many public hospitals often receive subsidies for buildings, private hospitals are experiencing very severe conditions brought on by the need to manage all their expenses by themselves.

Few hospitals employ management professionals, people trained in business administration, which is also a problem. What we see instead of professionally trained individuals in positions of management are personnel who have been assigned administrative tasks in the past becoming business managers, or people in treatment sections being transferred to administration. And while some staff physicians may be interested in acquiring MBAs and filling managerial positions, the majority of doctors are really too busy to care about management. The situation hospitals face is made worse by this reality.

Compounding the problem is the reality that few hospitals seem able to effectively apply the principles of evidence-based management, which adds significantly to the difficulty of improving the situation.

Problems with hospital organization

There is also the issue of hospital organization. First of all, there are many types of parent organizations that have established hospitals, and differences between public and private hospitals to consider. Furthermore, instead of assessing hospitals by function, they are all too often assessed by size. There is also the wide degree of variation in the types of cases handled by individual hospitals, meaning problems differ depending on the type of hospital, such as, for example, emergency, rehabilitation,
or convalescent. Such problems also differ by region. That is, we should not discuss healthcare in Tokyo and Gifu in the same breath.

Team medicine has been brought up as the important issue at hospitals. If hospitals maintain their original organic functions, team medicine functions as a natural outcome of the organization. In reality, however, because different healthcare professionals are involved in hospital operations, horizontal relationships and activities tend to be prioritized over vertical relationships and activities. This is the reason the term “team medicine” is so often applied.

### Regenerating hospital care

(Slide 3) I would now like to discuss what is required to regenerate hospital care. Going back to the origin of healthcare, we need to consider what we are doing, and the roles we are asked to play. It is impossible to talk about all of the roles of the government at the national and local levels, regions, hospitals, and organizations play, but I would like to talk about some of them.

#### Basic role of healthcare - Going back to the origin of healthcare -

(Slide 4) Let’s think about basic role of healthcare. Health is defined in the Preamble to the Constitution of the World Health Organization (WHO) as follows: Health is a dynamic state of complete physical, mental, spiritual and social well-being, and not merely the absence of disease of infirmity. The first definition established in 1948 did not include the terms, “dynamic,” and “spiritual”; however, the newest version has included them. It is hard to understand the term “spiritual” because of the directly translated term in Japanese is often used in other contexts.

Healthcare seeks to realize the maintenance, recovery, and promotion of human health. Healthcare includes not only the treatment of disease, but also prevention and rehabilitation. However, including the prevention and rehabilitation costs covered by healthcare insurance, the burden on the Japanese health insurance system is tremendous.

In order to make such healthcare a continuing reality, we need to establish a system that can support and provide protection to those who work hard to support the system. The government, both at national and local levels, needs to create a system that provides a sufficient return to the people and organizations that support the system.

#### Role of local government

(Slide 5) I would like to say a word about the role of local government. Currently the key to the continuation or abolishment of Social Insurance Hospitals is whether the Regional Healthcare Bill clears Diet. There are 52 Social Insurance Hospitals and 10 Employees’ Pension Welfare Hospitals, 42 of which are members of Japan Hospital Association. Considering these numbers, the loss of these hospitals or a deterioration of their function would mean a significant loss for society. Currently, the Readjustment of Facilities for Insured Persons and Beneficiaries Organization (RFO) supports the system. However, the Law Regarding the Establishment of the RFO is temporary legislation that will lapse at the end of September 2010. Therefore, a bill for the establishment of the Healthcare Organization Regional Agency was proposed in the Diet. The bill passed the House of Representative; however, the House of Councilors decided to call an election and the bill was scrapped. Bringing it up again requires that the process be repeated from the beginning. I am watching carefully to see if this will happen. My biggest worry is
the thinking that hospitals in facing financial difficulties should be cut. Of course, it is necessary to consider the managerial perspective; however, this perspective should not overshadow the reason we opened the hospitals in the first place. If there is a reason for a hospital to exist in a region, it should be there. It is necessary to assess the need for hospitals at the regional level. However, what the term “regional level” really means is not clear, and how we should define region is a difficult question to answer. There needs to be a discussion among the members of the Japan Hospital Association to address these questions.

Role of the Japan Hospital Association (Slide 6) What, then, is the role of the Japan Hospital Association? Hospital care involves hospitals, healthcare professionals, and the government, both at national and local levels, regulates the healthcare systems. At the center of the entire system, however, is the society it serves.

In the end, the role of the Japan Hospital Association is to promote high quality and safe healthcare for society, to regenerate hospital care through support for improved treatment quality and effective management, to reinforce the cultivation of professionals who provide healthcare services and support hospital management, and to collect data from hospitals for proposals based on evidence-based management to government bodies at the local and national level.

The purpose of the Japan Hospital Association is to improve the quality of hospital care and contribute to
social welfare in cooperation with its members, and it is this clear vision that should inform the direction and activities of the Association.

**What the Japan Hospital Association has planned**

Slide 7 shows the priority issues and our plans for FY 2010. The priority issues are as follows:

1. Regeneration of hospital care,
2. Examination of healthcare insurance and medical treatment fees,
3. Approaches to quality and safety assurance in healthcare service,
4. Human resource cultivation,
5. Promotion of information provision.

**4 Major Tasks**

(Slide 8) The Japan Hospital Association has placed a priority on four issues. One is to secure and cultivate human resources required by hospitals. We need to determine the number of individuals and specialties required to fill positions in the various departments that provide patient care at hospitals. It is also very important to consider how we can improve the skill of personnel currently employed at hospitals.

The second issue is the promotion of regional cooperation. The dissolution of the regional healthcare system has been discussed a lot. In order to regenerate and maintain the healthcare service system, it is necessary for hospitals to pay attention to regional healthcare. Involvement in the determination of regional healthcare measures is also important. Regional healthcare system regeneration plans have been established in various areas; however, the creation of plans is the beginning rather than the end, and we need to ensure that these plans are actually executed. Applying the plan-do-check-act cycle effectively, we should monitor progress and express our opinions clearly. As Dr. Haranaka, President of the Japan Medical Association, talked about in his speech, hospitals consist of a wide range of employees in addition to physicians. All employees at hospitals are required to express their opinions from their perspective to improve regional healthcare services.

The third issue is the realization of effective use of information (visualization). In order to do so, there is a need to collect and analyze information to ascertain the current state. Based on this, it is important to create proposals for necessary measures based on evidence and improve the quality of healthcare services and management at hospitals.

The fourth issue is cooperation among healthcare professionals, which is today’s theme. The promotion of team medicine is of the utmost importance.

**Physician deficit in Japan**

(Slide 9) The lack of physicians has been a frequent topic of discussion. However, there is no accurate data regarding the actual numbers. The Ministry of Health, Labour and Welfare (MHLW) has simply picked numbers from OECD data, which show the average number of physicians per 1,000 persons among OECD member countries to be 3.0 and Japan to be 2.0 (2/3 of the OECD average), and, based...
on this data, says that Japan needs to increase the number of physicians.

According to calculations the number of physicians required based on working hours, the number of full-time physicians under 70 years of age (I want to set it at 65 years of age; however, it is impossible right now.) is 162,000. The average working hours of staff physicians at hospitals is 63.3 hours per week. There are many other studies on the working hours of physicians, and all of them show about 63 hours. The MHLW recommendation is 48 hours per week. Simple math tells us that this means we need 214,000 physicians, which is 1.3 times as many as we currently have and that it would require 50,000 just to cover the difference between the MHLW recommendation and the actual number of hours being put in by doctors each week.

Some say, "Just increase the number of seats at medical colleges", but numbers are only part of the problem. The actual cost of increasing the number of physicians includes benefits and allowances totaling some 18 to 19 million yen per year per physician. With this in mind, the addition of 50,000 physicians would cost approximately 1 trillion yen per year. The question here would be where the money would come from. The MHLW is conducting research on the lack of physicians and I expect the results may be announced soon.

### Where does “Visualization” come in?

(Slide 10) I want to consider “Visualization” of the system. Visualization aims at the improvement of the quality and efficiency of healthcare services and hospital management, the sharing of information, and ensuring human resources. The healthcare system has not been clear. However, if it is not visualized, it can neither be evaluated nor managed. It is necessary to take appropriate measures based on appropriate judgment through the visualization of the system.

### Effective Utilization of Information by the Japan Hospital Association

(Slide 11) This is still in the planning stage, but I would like to explain what the Japan Hospital Association is specifically considering. We carried out surveys on the number of physicians required, studied hospital reports, and surveyed medical institutions, etc, and I have to thank our member hospitals for their steadfast cooperation. Meanwhile, the MHLW has also carried out statistical surveys, though these were independent of ours. Unfortunately, the results were presented years after the surveys, making it impossible to reflect them to actual measures and creating an obstacle to the improvement of healthcare services.

Therefore, the Japan Hospital Association is required to link a wide range of statistical surveys, carry out factor analyses, and quickly indicate results. Based on such data, we must also provide timely feedback to patients, regions, and the MHLW.

Most of the major hospitals have already implemented the diagnosis procedure combination (DPC) system. Such hospitals submit information in a number of areas to the MHLW. Therefore, they are quick to accumulate a wide range of data.
Small- and medium-size hospitals account for a large part of Japan Hospital Association membership. Such hospitals have few individuals who handle information, which makes it difficult for them to carry out statistical surveys. In addition, some have not yet implemented the DPC system, which means that they only have day-to-day performance data. Finding ways of collecting and organizing such data is a significant challenge. The Japan Hospital Association works to accumulate know-how related to the utilization of such data. We will sponsor
study meetings and provide software to member hospitals to set up an environment that enables each hospital to conduct their own surveys and accurately perceive the state of their hospital’s healthcare system, which will lead to the creation of proposals for the improvement of the systems.

Utilization of GIS and the Huff Model
(Slide 12) The Geographic Information System (GIS) is an important information tool in the regeneration of regional hospital care. We are planning to make use of GIS map information. Healthcare services are provided in regions and we require information on the regions to understand regional healthcare service supply and demand, which will help us quantify the business environment.

We utilize a wide range of statistical data and public information and to develop multiple layers of information provided by different source organizations based on the map information. These layers include, for example, roads, railways, rivers, government offices, hospitals, and resource data. The data developed via GIS will be applied to realize the effective utilization of regional healthcare resources, role allotment, cooperation, and the regeneration of regional healthcare systems.

(Slide 13) shows a map of Chutoen in Shizuoka prefecture, a secondary healthcare zone. We can get information on the number of patients transported to medical facilities by ambulance, the location of hospitals, the number of radiation treatments carried out, etc. on the different layers of the map. As is shown here, the system provides a great deal of useful information.

(Slide 14) shows a simulated outpatient analysis based on the Huff Model, which was introduced for use in trade area analyses by American economist Dr. David Huff. It calculates the probability of a given consumer in a given region visiting a certain shop (attractiveness value) by sales floor space and distance to the shop. We are trying to apply this model to the healthcare system.

(Slide 15) Public hospitals are dealing with the issue of integration or closure. Many reformation models have been examined, such as absorption by or transfer of services to private hospitals. The Huff model can be used to analyze such models. If we can gather information on total population and age distribution or diagnostic related...
groups, we can get a clear idea of the number of patents that each hospital can cover (attractiveness value).

[Slide 16] We can also make effective use of such information in addressing other issues. Recently, for example, GIS data from regional healthcare systems has been applied to human resource planning.

**Team Medicine**

[Slide 17] Now, let’s take a look at team medicine. Access, cost, and quality are keywords that form a triangle of importance in healthcare. With an initial focus on access and cost, qualified professionals could provide healthcare without difficulty until the middle of the Showa Period (1960s). Following the 60s, however, healthcare has become more complex, sophisticated, and specialized, and patient needs have diversified. As a result healthcare providers are struggling to respond adequately, a situation which highlights the need to change the concept of team medicine. As Dr. Yamada mentioned, we need to assure that team medicine corresponds to patient needs. Although...
there are various forms of team medicine, it is important to ensure flexible coordination to assure the effectiveness of the concept. There is hospital-based team medicine, which involves cooperation among nurses, physicians, and departments. There is also cooperation among regions, and cooperation between the Japan Hospital Association and member hospitals.

(Step 18) The MHLW established approaches to team medicine. The Investigation Committee for Team Medicine had discussions in 2009 and released a summary of approaches in March 2010. The Team Medicine Promotion Conference has initiated projects. Regarding the priority issue of nursing work to promote team medicine, the Designated Nurses (tentative name) Cultivation Survey has been initiated as a trial project. It is still in the trial stage; however, through this project team medicine is being discussed in relation to a system of designated nurses. While the team medicine system is still developing, I believe it will produce effective results.

Conclusion

(Slide 19) The Japan Hospital Association Congress is meeting for the 60th time this year and the Japan Hospital Association will celebrate its 60th anniversary next year. Practice makes perfect. However, changes are also necessary to make system work well. Without regeneration of hospital care, the regeneration of the Japanese healthcare system cannot be realized. As you already know, the Japan Hospital Association is the largest hospital association in the country. Therefore, our responsibility is great. The Japan Hospital Association sponsors activities that focus on three points: securing and cultivating human resources; the effective utilization of information; and continuity and cooperation in healthcare services, including regional cooperation and cooperation among healthcare professionals. In order to achieve these goals, we need cooperation from member hospitals and employees. Human resources and management policies are very important factors for hospital management. Let’s work together, cooperating to open the way to a bright future.
future for society. Thank you for listening to my talk.

**Chariparson (Yamada):** Thank you, Dr. Sakai. Today, Dr. Sakai talked about issues that hospitals currently face, basic roles of healthcare services and governments. He also showed us the policies of the Japan Hospital Association. Furthermore, he shared the vision of healthcare services of Japan and emphasized the importance of team medicine. He closed his talk mentioning that the important factor for hospital management is human resources, which include all the participants here. I think we had a great opportunity to get advice from a broader perspective. This is the end of the lecture. Thank you Dr. Sakai again, and thank you for everyone participating here.
Reaching toward a Bright Future for the Japan Hospital Association (JHA) – Healthcare Cost Reduction Policy Breakthrough
<A local hospital director’s efforts>

Kimio Henmi
President, Japan Municipal Hospital Association

Tsuneo Sakai (President, JHA): We have asked Dr. Henmi of Ako City Hospital to talk to us today. His presentation is entitled “Reaching toward a bright future for the Japan Hospital Association (JHA) – Healthcare Cost Reduction Policy Breakthrough. A local hospital director’s efforts”.

Please allow me to give you some background on Dr. Henmi. He was born in 1944 and graduated from the Kyoto University Graduate School of Medicine in 1968. Following graduation, Dr. Henmi served on staff at Kyoto University Medical Center and affiliated hospitals. He assumed the post of Chief Physician at the Ako City Hospital Department of Surgery in February 1978. He became Director of Ako City Hospital in 1987 and has held the position for 23 years. He was asked to take the position of Honorary Director in April 2009.

As you already know, Dr. Henmi is active as a member of the Central Social Insurance Medical Council (Chuikyo). Because of his efforts, hospital compensation has increased.

Dr. Henmi is President of the Japan Municipal Hospital Association, Chairman of the JHA, and Vice-President of the Japan Hospital Federation. It is also of note that he is in charge of special activities as the Adviser of the Kyoto University Surgeons Association. His wide range of experience and depth of knowledge make it an honor to have him here today. So now, please welcome Dr. Henmi.

Dr. Henmi: ...(Speaking in sign language)... Hello, everyone. I just introduced myself in basic sign language. Let me explain what I signed. The big horizontal circle means, “Everyone.” Bent fingers means, “hello.” “My name” is expressed by signing a name tag with your thumb and index finger and placing it on your chest. Henmi is expressed by signing each letter. Touching your lips expresses “rouge” or “red” and adding “rice ear” is how you sign the name of my town, “Ako.” Feeling your wrist for a pulse and signing a box means “hospital,” and the top of that means “director.” I also signed, “It’s nice to meet you” at the end.

As Dr. Sakai mentioned in his kind introduction, I retired from my position as director of the hospital in March of last year (2009), and I am now the honorary director. I have not yet, unfortunately, learned the sign language for “honorary”.

Dr. Sakai, thank you so much for your kind introduction. I was invited to speak at a reception given to celebrate the new organization and executive committee yesterday evening, and I deeply appreciate having this great opportunity to talk to you today. It is my great hope that our six vice-presidents will work in cooperation with others in the organization to improve hospital care systems.

I served for about 20 years as the director of a local hospital and I am also the first Chairman of the Kyoto University Surgeons Association. This association aims to reverse the decline in the number of surgeons in Japan. The association is not controlled by professors, but by physicians trying to meet the nation’s healthcare needs by matching skilled surgeons with hospitals. This is the first attempt by a university medical center to create a new healthcare model. As a sign of our progress I’m happy to say that we even had a young female physician contact us to express her willingness to become involved in breast surgery even though her specialty is in another area.
Although it is not written in my CV, I am also involved in sending abandoned cats and dogs to care facilities for the elderly to give comfort. If you happen to pass by the collection box for this project, I would very much appreciate your support.

I honestly feel that I stand to learn more from listening to than you can learn from me. Since I’ve already been introduced, however, I guess I should go ahead and share my thoughts and experience.

Ako City Hospital changed with the implementation of sign language.

There is a reason why I introduced myself in sign language, but please bear with me and my roundabout explanation. Ako City Hospital has 180 registered volunteers and another 100 unregistered volunteers. The reason why we have so many unregistered volunteers is that registration involves a number of complexities that increase the burden on both hospital and volunteer. Because many of our patients at the hospital are compromised hosts undergoing dialysis or treatment with anti-cancer drugs, registered volunteers are required to follow infectious disease control principles, such as checkups once or twice a year that include a TB test and chest X-rays.

Another thing is that we also handle a great deal of personal information, and it is incumbent on the institution to ensure that registered volunteers understand the need for maintaining confidentiality. Public hospitals in particular are required to handle confidential information on tax payers, which are stakeholders, handicapped individuals and a wide variety of other patients. A leak of information to the public can mean significant problems for the hospital, such as an increased bank acceptance rate (BA rate). For this reason, the city council keeps a strict watch on what we do, which requires us to keep a close eye on what we do.

Ako is a small town so if you are an inpatient in a large room, the chances are high that you will know one of the other 3 patients there. Of course volunteers coming in and out are bound to run into people they know. If one of these volunteers happens to mention to someone that Mr. So-and-So has been in the hospital, opines that he seems to be getting weaker and weaker, and suggests that any visits should be made before the New Year, the news would spread through the town in no time and the City Council would be on the phone scolding me about not protecting patient privacy, and I would become very busy running around to apologize about it to everyone.

It would be unreasonable to expect an elderly resident of the town who simply wants to arrange flowers on desks in the hospital administrative office or teach Japanese shogi (chess) to kids who have been hospitalized with nephrosis to take on the burden of becoming a registered volunteer. For such people we also have nonregistered volunteer system. If you include those who volunteer during the Bon holidays, New Year’s Day, and Christmas, we currently have more than 300 nonregistered volunteers.

I had thought about how these volunteers could be put to the best use. This was back in 2000, the International Year of the Volunteer, and I was taking a sign language class at the Welfare Center sponsored by the Municipal Social Welfare Council. It was when I got my elementary sign language certificate of sign that the idea hit me. Why not start a sign language program for volunteers at the hospital?

The atmosphere at the hospital changed completely. Hearing impaired patients began seeking treatment at our hospital with increasing frequency. I tried my best to communicate with these new patients using sign language; however, I often failed to do so because my sign language was not advanced, and I wound up writing to communicate. One hearing impaired patient I saw turned

Kimio Henmi’s special presentation began with a sign language demonstration.
out to have cauliflower-type lesions in an embarrassing location. The patient was so self-conscious about his problem; and because he couldn’t communicate well with the doctors, he hadn’t sought treatment until that time. If I had learned sign language earlier, I might have been able to help this patient get the treatment he needed. Since that time, I have tried my best to improve, and introducing myself in sign language today comes from the resolution I made when I met this patient.

Another reason I introduced sign language to the hospital is that hearing impaired individuals in the community have strong bonds. As I just mentioned, after we started using sign language, more and more people who had hesitated to seek treatment started coming to our hospital. Some chose our hospital to have their babies at, even coming from great distances. This, as it turned out was good financially for our hospital. It is hard to create a system that benefits everyone at present; however, this is one case of niche strategy, which focuses on a certain segment of the market.

Is this the worst time in history for the hospital industry?
Whenever I am asked to speak, my lecture title always includes “Reaching toward a bright future.” When I speak about not smoking and AIDS at Ako High School, the title is, “Reaching toward a bright future for Ako High School.” When I visit Tsutsujiso, a health and welfare facility for the elderly in the neighborhood, I talk about preventing cancer and being bedridden under the title, “Reaching toward a bright future for the 80-year-olds at Tsutsujiso.”

I am using the Hanshin-Awaji Earthquake Disaster calendar (Slide 1). It is the year 2010 and year 16 by the Hanshin-Awaji Earthquake Disaster calendar. If we look back on our present in 100 years, the Heisei Period will be considered as one of the worst times, similar to the Tempo Period. I can’t think of anything good that has happened since the Heisei Period began in 1988. The Unzen Fugen-Dake volcanic eruption, the huge tsunami that hit Okushiri Island, and the Hanshin-Awaji Earthquake occurred. The Aum Shinrikyo religious cult committed horrible crimes, the bubble crashed, and Yamaichi Securities and Hokkaido Takushoku Bank went bankrupt, which caused the deterioration of the Hokkaido economy highlighted by the troubles facing Yubari City. Sapporo and Hakodate were the only cities that seemed to have escaped the worst damage.

Many stores in the downtown areas of cities throughout Japan have been forced to close their doors. I don’t know of any other countries that are facing such problems. I don’t think this is the country we deserve after all our hard work. But, people in Japan are not foolish. The Democratic Party of Japan (DPJ) scored a landslide victory in the election of the House of Representatives last year. If I had bet on the election, I would have won big. By staying clear of the postal-service privatization issue, I thought the DPJ would win 300 seats this time. The result was as I expected.

This election has been called “a local rebellion”; however, it was not only people in the local regions, but also the people in urban areas also made the choice to change direction. We all refused a situation in which products were valued more than people and money more than products, and in which investment funds enjoyed popularity among people, funds such as those created by Takafumi Horie (founder of livedoor) and the Murakami Group. People refused to put up with a situation in which those who work hard receive nothing in return. According to the Council on Economic and Fiscal Policy, it’s not their bodies but their brains that are sweating. I think something is wrong.

Concept as a physician & a hospital director
Slide 2 shows my concept as a physician and a hospital director.

“Is there a physician on board?” On December 24th last year, when I was on a bullet train returning home after attending a Central Social Insurance Medical Council
(Chuikyo) meeting, there was a call over the public address system asking for a physician. I quickly found the conductor and was brought to a person who felt sick. Surprisingly, it was the person sitting in the seat in front of me. As a skilled samurai should feel the presence of an enemy, a skilled physician should feel the presence of a patient. However, I had not noticed that this person, who had been so close to me, was ill. This shocked me. The individual looked like a business man around 40 years of age and had symptoms of ileus. He mentioned that he had had diarrhea and had not eaten for about three days, but that he felt bloated. I suspected cancer and thought it best that he have a colorectal examination in the near future, so I recommended he see a doctor as soon as possible. At Nagoya Station, a wheelchair was waiting for him and he was taken to Nagoya Central Hospital.

As we were leaving the train, I asked him where he was from. He told me he was from Kira. “How about that”, I thought, “a person from Kira, where Kozukenosuke of ‘47 Ronin’ fame was from.” I was surprised and pleased to do something good for Kira, which became so famous 300 years ago. I always feel that we are responsible for helping people anywhere and anytime.

However, there are also some who disagree. They say that stopping to help someone may make us late for an important meeting, or ask what we should do if such assistance causes a problem. A physician acquaintance of mine said that he wouldn’t respond to a call for help outside the hospital, and he advised me not to either. I asked him what if someone knows that I am a physician. He told me to behave as if I were asleep. But, if I ever did that, the beer I drink after dinner on that day just wouldn’t taste the same. I can’t help but answer calls for help, no matter where I am.

We often hear stories of nurses answering the call for help in medical emergencies, and their positions being recognized by the Law on Public Health Nurses, Midwives and Nurses was a great boost for their pride. I believe this is one of the great things about the establishment of the law.

“Travel on outbound lines too” tells us that concentrating too much on Tokyo is bad. People living in Tokyo do not often visit Osaka. People living in Osaka do not often visit Kobe. People living in Kobe do not often visit Himeji. People living in Himeji do not often visit Ako. The mind set of the Edo Period, 300 years ago, is still present. This is not good. It may be fine for politics and economics. But we need to apply a Yatsugatake-type growth model, in which each region achieves results and contributes to increasing the level of the nation as a whole, and this applies to healthcare and education as well, instead of the Mt. Fuji-type growth model, which concentrates on Tokyo.

Do not count on spoken promises. If there is an assistant professor who says, “You should go to Ako for two years. If you do, I will promote you to lecturer in...”
the third year,” I would say you shouldn’t depend on that person because he may die within three years.

Ongoing improvement means that we all need to improve every day. If it take 15 minutes to perform a gastroscopy on one day, we should try to perform it in 14 minutes the next day. If it takes two and a half hours to perform surgery for gastric cancer, we should try to do it within two hours and 25 minutes the next time.

Making the hospital capable of satisfying everyone means learn about service from Disneyland and Toyota. Cast members at Disneyland continue to smile until they close the gate at night. I always tell the staff at my hospital to keep a smile on their faces. Hospitals managed by local governments lack money; however, a smile is service that costs nothing. We also should learn from Toyota about “reducing obstacles, waste, and irregularities”.

We created a healing environment in the hospital. This is also something important.

Making hospital management transparent is important because closed organizations, such as the police, hospitals, and schools, tend to develop problems.

Be aware of the causes of tragedy. The heroes of my youth were Mr. Nagashima, the baseball player, and Taiho, the Sumo wrestler. However, Ryuhei Kawada, who is HIV positive, and Eriko Fukuda, a hepatitis C patient, are also heroes. They are tragic hero & heroine. Their conditions were caused by problems existing in the healthcare industry. One of the reasons for my having made healthcare safety cards is to prevent creating victims of the healthcare system.

Have the insight to recognize each individual’s strong points. This is what I often say to the head of administration and our department managers. Hideo Nomo and Ichiro Suzuki were not valued in Japanese baseball. It was because most of the coaches failed to recognize their strong points. Kintetsu Buffalos coach Keiji Suzuki had no confidence that the tornado method Nomo had developed could provide good balance and thought Nomo could not be the pillar of his rotating pitching staff. Orix coach Shozo Doi assigned Ichiro to the 2nd string because he did not value Ichiro’s pendulum batting style. Akira Ogi, however, recognized their talents, and we should appreciate him. Nomo and Ichio would have become stars regardless, but if Mr. Ogi had not recognized their talent at that time, we would have had to wait much longer for the chance to see them in major league games.

A person working in the office at our hospital is always complaining about someone or another, saying that Dr. So-and-So is a sloppy dresser, or that Dr. Such-and-Such is always late for work and looks like he’s about to fall asleep. I always ask if the complainer knows how late the doctors were at the hospital the night before. I want the person to try to understand each individual’s situation. We need to develop the ability to recognize the excellence of Nomo’s pitching and great batting control that Ichio has. We should not judge someone only by their clothes or manners.

I don’t know what motivates people, whether it’s money, ideology, or emotion. But I can say that the director of a public hospital has little control over these factors. I cannot control people with money, and ideology does not mean anything nowadays. All I can do is to put myself up as an example. Therefore, I go to work earlier and leave the office later than everyone else.

The loneliness of a hospital manager. The support a hospital director has comes from the employees and patients.

Improve healthcare to the level of university hospitals, but treat everyone like a small local clinic. It should not be the reverse. I don’t mean that relationships at university hospitals are bad or that the level of care at local clinics is low. However, working at a university hospital can be very stressful, and local clinics are not always able to deliver advanced healthcare. We need to improve the situation at both levels.

3H + a means a warm heart, cool head, skilled hand, plus a. Physicians are required to have a warm feeling toward patients, the desire to reduce their pain or cure them, knowledge of medicine, and skill in procedures such as endoscopy. But these are not enough. We also need to develop communication skills, trusting relationships, and an understanding of patient psychology, etc. Healthcare providers need to improve in these areas for the future.

Emergency care is the foundation of healthcare.

Accept all patients brought by ambulance. I always tell the staff to consider patients brought by ambulance as their parents and children. Our hospital has not rejected even one patient brought by ambulance in seven years. If someone wishes to refuse a patient, that person has to explain the reason to me directly. Maybe they accepted every patient because they did not want to deal with me. However, a physician in our Department of Obstetrics
and Gynecology retired and another in our Department of Neurosurgery left to open his own clinic, so the patient load has become heavier.

Aim to be at least 1 yen in the black. I personally want to be more profitable. But if the hospital reports a surplus of even 1 yen, I won’t have to attend city council meetings. Therefore, I ask all the staff to aim to make at least 1 yen profit.

My thinking on the healthcare industry & society

The decline in the birthrate is not associated with the aging society. Although both terms are often stated together, they should be considered separately.

For more than 20 years, I have expressed my thoughts in the Kobe Newspaper. However, only the Komeito is the only political party that listens to me. The LDP and DPJ have ignored me. The government invests a large amount of money into its gold plan, but not into the angel plan. Why is this? It’s because they base their decisions on democracy. Democracy is based on the number of votes. Children do not have the right to vote. Their parents can vote, but they are busy and do not have time. The elderly have the time, position, and the money. Therefore, the political parties try to focus on this demographic for the votes that come with it. Democracy is populism, which is close to mobocracy. This is how it works. Take a drive around the suburbs and you will find wonderful facilities. But they are not for children. They are for the elderly. You’ll see a club house at the golf course, headquarters of new cults, etc.

It is my belief that healthcare and education are two major fundamental industries in Japan. Since the Edo Period, the Japanese have fed and clothed their children, and watched them grow healthy and well disciplined through education while the grown-ups were poor and did not have enough food. That was our way of survival. With its land mass covered by mountains and surrounded the ocean, we lack open plains and farmland. People cultivate terraced rice fields up to the top of mountains. Japan also lacks resources such as petroleum, coal, and iron. In order to compete with powerful countries in Europe and the U.S., which are blessed with vast areas of farmland and a wealth of underground resources, we had no choice but to move in the direction of science and technology through the development of healthy bodies and the cultivation of excellent intellects. However, in these economically tough times, I do not understand why the government always treats healthcare and education as its enemies.

Hospitals are the community centers of the region. With a hospital and a school, a small community can survive.

Save Yamakoshimura. Yamakoshimura suffered during the Tempo Famine (1836-1839), but survived. We should consider the situation surrounding Yamakoshimura, which was hit by the Niigata-Chuetsu Earthquake, to ensure the village’s survival.

Hospitals and schools should be close to residents in each region. Hospitals and schools need to be located so that the residents can visit them early in the morning and come home for lunch. It is harder for the elderly to visit these facilities if they are located far from home. Children are also at increased risk for accidents if schools are located further away from their homes.

The 21st century is required to pay off the debt incurred in the 20th century. We need to stop focusing on high economic growth only. We should place a priority on the environment, spirituality, and culture. We are entering an era in which we must protect this earth, including taking measures against global warming, rather than simply pursuing convenience and a materially rich lifestyle.

From Gross National Product (GNP) to Gross National Happiness (GNH). The concept of GNH was introduced.
by Bhutan’s former King Jigme Singye Wangchuck. Bhutanese places a priority on the natural environment, spirituality, and culture. According to its GNH, 80% of the nation considers itself to be happy. On the contrary, only 20% of the Japanese population considers itself happy. There is something important and to be learned from this, and I think it is time for us to stop placing GNP above all else.

The QOL of patients and staff: reducing staff turnover (work-life balance). Our hospital has focused on the QOL of patients for over 20 years. However, we realized that the QOL of the staff is also important, and the quality of “my” life (QOML). This policy helps hospitals to give greater consideration to employees, which reduces turnover.

Hospitals suffering while surrounding industries flourish. In order to prevent drug gap or drug lag, we need to allow exceptions to pharmaceutical pricing policies that maintain the price of new drugs until their patents are expired. Perhaps they could create new categories. The presidents of major pharmaceutical companies are invited to attend Central Social Insurance Medical Council meetings once every three months. I wanted to include surgeons on the council, but it took five years to actually get them. This shows what the Ministry of Health, Labour and Welfare (MHLW) places a priority on. Pharmaceutical companies hire these government officials after they retire. I said, “Add the surgical society to the list of post-retirement career opportunities,” but no one listened.

Academic societies do not know Japanese society. Now, because academic societies are “learning societies”, so we all need to start learning.

Hospitals suffering while surrounding industries flourish. Dr. Morohashi has said this. Hospitals are suffering, but related industries have been flourishing. It is good for them to be profitable, but I’d like to see hospitals flourish as well.

Who is responsible for the disruption of healthcare system? I have read “The Fall of the Japanese Empire.” The author argues that the Japanese Empire was destroyed by the idiots in charge of the army and navy, the airheads in the national diet, bureaucratic boneheads, and cowardly newspapers.

What led to the collapse of the medical industry? The Japan Medical Association (JMA) is obviously dumb. This is a fact. They always blame the Ministry of Finance and Ministry of Health, Labour and Welfare, but they are definitely the main problem. The JMA has become the Japan Medical Clinic (without beds) Association. They don’t know about hospitals with inpatients; therefore, they don’t know about inpatient treatment or other departments. It goes without saying that they don’t know about surgery, and emergency medical care because their members don’t deal with inpatients. They don’t know about team medicine and highly-advanced treatment. Or even if they know about them, they pretend that they don’t know, most of the representatives of the association being from clinics without beds. If we don’t change this situation, nothing will change.
But we are also responsible for the situation. Hospital associations and academic societies have fully depended upon the JMA and have failed to think and act for themselves.

Hospital associations and academic societies alike have been the victims of national ignorance. The Japanese thought that they could win a war against the U.S. with bamboo spears. General MacArthur referred to the Japanese as “three-year-old children.” That is very true. Turn on TV at 8 o’clock in the evening. What we see there is like a school-house drama or reunion for third-class entertainers. If we continue watching what is offered, we fail to notice the problems our nation’s healthcare system is experiencing. When TV was first introduced, Soichi Oya said, “This box will be the cause of the nationwide stupidity.” I guess he was right. I also want the public to be more aware of what is going on in the country.

What’s new in Japan and the world?

(> Slide 4<) Let’s look at what is going on throughout the world.

About globalization. The new influenza virus spread throughout the world within a week. At the time of Columbus, the plague and syphilis took years to spread throughout the world. Everything has been globalized and spreads much quicker than before.

About American standards. There are more than 200 countries and regions in the world. I think the world should not be unified by American standards. Therefore, I sympathize with other standards including Islamic fundamentalism, although terrorism is not acceptable.

We should apply Japanese standards for healthcare services and education. Have you seen the American TV drama ER? We get it in Ako, so I guess most of you can see it. Anyway, watching ER makes us feel that American medical care is outstanding, such as frank conversation with patients, close contact with emergency response personnel, and excellent equipment. When I see such equipment, I want it. I sometimes follow the equipment more than the story. Beyond that, I enjoy the beautiful nurses in the show.

However, that is only the bright side of the American medical care. When Hurricane Katrina hit, 2600 uninsured individuals in New Orleans were not saved by Medicaid or Medicare and died. According to SiCKO, a movie produced by Michael Moore, the healthcare insurance system in the U.S. is not that great. They have such deep and dark side in their healthcare system. Japanese healthcare system is not as great as ER, but not as bad as SiCKO.

Steep rise in medical payouts in advanced countries. This is the same everywhere. If the standard of living improves, medical payouts also increase.

Failure of healthcare measures in Great Britain. In the 1980s, Prime Minister Margaret Thatcher, whose nickname was the “Iron Lady,” repaired the British economy, which had been referred to as the English disease, within 10 years. However, what she lost was significant, too. Their great social security principle, “from cradle to grave,” which we all learned about in school, was screwed up. Individuals requiring acute phase treatment, in particular, had to wait for hospitalization for three months, and wait for surgeries for three years.

What surprised me the most was that there were four surgeons among the 10 terrorists arrested outside Glasgow Airport during the London Summit. I was so surprised that I followed up on the story. What I found was that at that time, British surgeons were leaving England for other English-speaking countries, such as the U.S., Canada, Australia, New Zealand, the Republic of South Africa, and other parts of the EU. Surgeons remaining in Britain are those from India, Pakistan, Kenya, and Afghanistan. Some of them have relatives who are involved in al-Qaeda and sympathize with them, which explains why they become involved in terrorism.

Tony Blair worked hard for 10 years to change the situation. The budget for medical care that had dropped to 7.8% of the GDP increased to 8.2%. However, it was hard to bring it up to its original level in 10 years. Once something collapses, it cannot be rebuilt so easily.

Shinya Adachi, Minister state affairs officer of
the Health, Labour and Welfare never uses the term, “collapse,” but speaks of the Japanese healthcare system as being “at the edge of a cliff.” Mr. Adachi always says that once it collapses, it cannot be rebuilt. In order to prevent the collapse, I am not sure if the individual burden should be higher or not. Maybe, a shift to medium burden and medium welfare is the answer.

Are flourishing countries feminine? (Slide 5) I define masculine countries as those placing importance on military affairs, engineering & construction, and industry. China and North Korea fall into this category. Neutral countries are those placing importance on commerce and finance. Japan falls into this category. Feminine countries are those placing importance on health & welfare, childcare & education, culture & religion, and the environment. Scandinavian countries are so. Benelux countries are shifting in this direction. There are, of course, voices claiming that the welfare system is destroying the country, that the cost of healthcare is destroying the country, or that female college students are destroying the country. However, these voices are wrong. These factors obviously contribute to the prosperity of the country.

Information disclosure and the protection of personal information – Increasing anonymity

The last item shown in Slide 6, “Information disclosure and the protection of personal information,” is the most difficult issue for the medical industry. It is like being asked to run with your legs tied.

Slide 7 shows a patient-room name plate at our hospital. Sometimes there are two anonymous patients in a room. Patients ask us not to write their names there. A physician at our hospital sometimes jokes, “I’ve got to check on Mr. Anonymous.” This does not tell us where he is going. I am afraid now that someday, this will cause a mistake.

When I visit hospital wards, people from the residents’ association in the region are there. In a local community, people have strong bonds with one another. If someone in the neighborhood group is hospitalized, other people in the group want to visit that person. They come to the front desk and ask, “Is So-and-So hospitalized here?” Because the front desk cannot give out information on patients, the situation often becomes tense. I’ve heard visitors say, “This is why people say that city hospitals are bureaucratic and cold.” Such encounters often leave the clerk at the front desk near tears.

I’ve seen such situations so often at our hospital. However, once the patient checks the privacy box on the admission forms, the hospital manual says that we should tell visitors, “We don’t know,” the first and second times we are asked. The third time, we should tell the visitor, “You are free to have a look around.” Therefore, the front desk clerk is doing the right thing. As the individuals who want to concentrate on treatment increase, such situations will occur more often. However, personally, I feel that the protection of personal information is sometimes too much.
I was once chairman of the local community association. People asked me about, for example, Mr. So-and-So. I answer, “Well, he had a thighbone neck fracture that will take at least a month to heal.” With this information, the person could follow our local custom of giving a gift of money as a sign of sympathy. At that time, it was 10,000 yen for patients hospitalized more than a month, and 5,000 yen for less than a month.

But, nowadays, I cannot tell them anything. I have to pretend that I don’t know about the person’s hospitalization. Then, the people in the community get irritated and tell me, “You have changed lately. You go to Tokyo so often, so you probably don’t know about your hospital.” I can only say, “I have not changed, but rules have changed.”

**Japanese healthcare today**

The third from the bottom in *Slide 9* asks “Is healthcare a wasteful or productive industry?” Some say that healthcare is not productive, but a wasteful industry. I say “It has changed. It is now productive.” When someone asks me, “What are you producing?” I say, “We are producing good people like you.” Then, the person smiles for a moment, but quickly returns to the claim that healthcare’s productivity is very low. I say, “Healthcare is not an automated industry. We are all human; therefore, productivity has to be measured in human terms.” But it seems that people find this difficult to understand.

Bunchin Katsura tells the one about an old woman on holiday (in the waiting room of a clinic) who says, “Ms. Ume isn’t here today. Is she alright?” Sorry, that was a bad joke.

At the bottom of *Slide 9*, I wrote “Universal health insurance system as world cultural heritage (3 miracles).” With an insurance card, people can receive good medical treatment anywhere, anytime. This is happening only in Japan. Why don’t we register our healthcare system as world cultural heritage?

There are three miracles that made our universal healthcare system successful: ever-increasing economic growth, no military expenses, and the Samurai spirit. The public did not complain too much, and healthcare providers did not use healthcare as a way to increase profits. We all have the Samurai spirit.

All three factors are at risk now. At the Central Social Insurance Medical Council, the payer side, the healthcare provider side, and the public-service organization side work together to protect our universal healthcare system. However, there are some problems, such as people showing up at the emergency room for non-emergencies, or so-called “convenience consultations.”

**My five-year experience at the Central Social Insurance Medical Council, and what the future holds**

I’d like to talk about activities at the Central Social Insurance Medical Council. First, let me talk a bit about my participation in the council.

**My participation in the Central Social Insurance Medical Council & the establishment of the Hospital Council of Societies of Japan**

The Hospital Council of Societies of Japan brings together 11 hospital organizations (*Slide 10*). Behind the establishment of the council were various issues such as

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**3 factors in the increase of the healthcare budget**

1. Aging
2. Progress of medicine (highly-developed & advanced science)
3. Increase in patient expectations

Excessive reduction may undermine the quality of healthcare

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**Japanese healthcare today**

- Cost effectiveness
- Job allocation (medical examination, acute & chronic, public & private, etc.)
- High unemployment rate and the successive dissolution of health insurance organizations
- Healthcare cost reduction measures (negative revision three terms in succession)
- Is healthcare a wasteful or productive industry?
- Healthcare and education are two major fundamental industries in Japan.
- Universal health insurance system as world cultural heritage (3 miracles)
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the MHLW’s need to have an organization representing Japanese hospitals, where 60% of the national healthcare budget is spent. The council is referred to as a government agency. The JMA thought it would have the same problems as the National Association of Hospitals did and, therefore, believed it could not function well. They thought members would spend their time fighting about elections and the location of the secretariat. However, we all shared a sense of crisis in the Japanese healthcare system. We knew that it was not the time to argue with one another over such tiny things.

The Hospital Council of Societies of Japan is made up of 11 organizations and accounts for more than 80% of hospitals and more than 90% of beds. Therefore, this organization is a good representation of hospitals in Japan.

(Slide 11) Twelve items were selected as unified requests. The organizations in charge of each item were also decided and data was prepared.

- **Changes in the framework for determining compensation**
  (Slide 12) There were changes in the framework for the determination of compensation, and revised rates will be discussed by the Cabinet. 2006 was -3.16%. The Central Social Insurance Medical Council only determines treatment fees. The basic policies are determined by the Social Security Council. However, this Social Security Council is meaningless. It is dead. As Dr. Takamasa Kayama, a member of the Central Social Insurance Medical Council, might say, it’s brain dead.

- **Changes in Central Social Insurance Medical Council Membership**
  (Slide 14) The list of the 2004 Central Social Insurance Medical Council Members shows most of the physicians are members of the JMA.

  This is where Dr. Eiki Ishii and I joined (Slide 15).

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<table>
<thead>
<tr>
<th>Hospital Council of Societies of Japan</th>
<th>Revision of Annual Medical Treatment payouts 12 items – Unified Requests</th>
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<tbody>
<tr>
<td>Requests</td>
<td>Organization Name</td>
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<tr>
<td>1. Assessment for safety of healthcare</td>
<td>Japan Hospital Association</td>
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<tr>
<td>2. Establishment of a nurse ratio</td>
<td>Municipal Hospitals National Council</td>
</tr>
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<td>3. Establishment of criteria for inpatient beds</td>
<td>Sanatorium Ward Society of Japan</td>
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<td>4. Basic fees for hospitalization when using other medical care institutes</td>
<td>All Japan Hospital Association</td>
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<td>5. Establishment of additional compensation for NST management</td>
<td>Municipal Hospitals National Council</td>
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<tr>
<td>6. Review of calculation for initial visit, return visit, and outpatient care fees</td>
<td>National Association of Public and Private Hospitals</td>
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<tr>
<td>7. Improve the calculation for referrals</td>
<td>Japan Hospital Association</td>
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<td>8. Additional compensation for medical care record management</td>
<td>All Japan Hospital Association</td>
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<tr>
<td>9. Division of Psychiatry, Department of Dementia</td>
<td>Association of Psychiatric Hospitals in Japan</td>
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<tr>
<td>10. Additional compensation for severe dementia management</td>
<td>Association of Psychiatric Hospitals in Japan</td>
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<tr>
<td>11. Abolishment of medical treatment fee waivers based on the facility standards for surgeries</td>
<td>Municipal Hospitals National Council</td>
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<tr>
<td>12. Requests on DPC</td>
<td>The Committee of National University Hospital Directors</td>
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Changes in the framework for determining compensation

1. The Cabinet determines the revised rates.
   (2008: -3.16%)
2. The Social Security Council determines the basic policies.
   Both committees (healthcare & healthcare insurance)
3. Individual treatment fees are determined by the Central Social Insurance Medical Council.
   Along with the healthcare service outlines
4. Review by the Central Social Insurance Medical Council
   (Advisory Council on Reform of the Central Social Insurance Medical Council)

Participants of the Advisory Council on Reform of the Central Social Insurance Medical Council

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Masasuke Omori</td>
<td>Director, National Public Safety Commission, Lawyer</td>
</tr>
<tr>
<td>Takayasu Okushima</td>
<td>Professor, Waseda University Graduate School</td>
</tr>
<tr>
<td>Masahiro Okuno</td>
<td>Professor, The University of Tokyo Graduate School of Economics</td>
</tr>
<tr>
<td>Teruko Kanehira</td>
<td>Adviser, The Tokyo Metropolitan Foundation for History and Culture</td>
</tr>
<tr>
<td>Chuzo Kishimoto</td>
<td>Council for Science and Technology Policy member, Visiting Professor at Osaka University</td>
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(Reference) Central Social Insurance Medical Council Members
(as of December 21st, 2004)

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<tr>
<th>Classification</th>
<th>Name</th>
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<tr>
<td>Representatives of insurance companies, insured individuals, business owners</td>
<td>Chikafusa Aoyagi</td>
<td>Director of Administration Department, Social Insurance Agency</td>
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<tr>
<td></td>
<td>Tadaaki Tsuchima</td>
<td>Executive Director of Health Insurance Organization</td>
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<td>Shigeru Kojima</td>
<td>Director of the Life and welfare Bureau, National Federation of Private Sector Unions</td>
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<td>Kataro Muneoka</td>
<td>Executive Officer &amp; Corporate Auditor, Hitachi, Ltd.</td>
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<td></td>
<td>Norimasa Ouchi</td>
<td>Member of Central Executive Board Committee, All Japan Seamen’s Union</td>
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<td></td>
<td>Tsutomu Iizuka</td>
<td>President, Kokusai Energy Yuso K.K.</td>
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<td></td>
<td>Toshiaki Matsuura</td>
<td>Auditor, Kagawa Prefectural National Insurance Organization</td>
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<tr>
<th>Representatives of physicians, dentists and pharmacists</th>
<th>Hideya Sakurai</th>
<th>Vice-President, Japan Medical Association</th>
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<tr>
<td></td>
<td>Kenji Matsubara</td>
<td>Executive Director, Japan Medical Association</td>
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<td>Shigetaka Aoki</td>
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<td>Hiroshi Nonaka</td>
<td>Executive Director, Japan Medical Association</td>
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<td>Hidetatsu Sassa</td>
<td>Japan Medical Association (President, All Japan Hospital Association)</td>
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<td>Norimasa Kurosaki</td>
<td>Vice-President, Japan Medical Association</td>
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<td>Minoru Urushibata</td>
<td>Vice-President, Japan Pharmaceutical Association</td>
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<th>Representatives of the public</th>
<th>© Shinya Hoshino</th>
<th>Visiting Research Fellow, National Institute for Research Advancement</th>
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<tr>
<td></td>
<td>Sachiko Murata</td>
<td>Journalist</td>
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<td></td>
<td>Takeshi Tsuchida</td>
<td>Professor, Waseda University School of Commerce</td>
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After Dr. Ishii retired, Dr. Hirotoshi Nishizawa joined (Slide 16), and Dr. Adachi, Dr. Suzuki, and Dr. Kayama joined after the election in 2009 (Slide 17). The JMA was against this. Current Vice-President Nakagawa (Board of Director at that time) said, “This is against Central Social Insurance Medical Council Law. There are no members from the JMA that represent regional healthcare service organizations.” Mr. Adachi, Government Minister state affairs officer of the MHLW, stated at the 1st meeting that they chose members that reflect current Japanese healthcare conditions. First, they increased the number of members from hospital organizations, and selected people mainly from university hospitals that are facing various difficulties. Then, they selected members from prefectural
medical associations, not from the JMA. They chose people that are closely involved in healthcare, one from a large prefecture, one from a mid-size prefecture, and one from a county.

Slide 18 shows the seating arrangement at the Central Social Insurance Medical Council. Dr. Ishii and I were seated in the area taken by media, so that we could not nap.

Slide 19 shows the subcommittees. I requested and was assigned to the Subcommittee on Medical Service Fee Basic Issues. But, it was very difficult. We complained and argued. Finally, Dr. Ishii joined. If the JMA considered the issues that hospitals were dealing with, they would not have omitted a representative of hospitals from the healthcare provider committee. They occupied three seats all by themselves. The JMA originally did not like to have us on the council.

When I attended my first Central Social Insurance Medical Council meeting, I felt that I was like the son of the second wife of the JMA. The JMA did not like to have someone like me because they did not want to reduce their share of the decision making authority. The payer side also felt that I represented an interest in raising rates. Therefore, I was disliked by both sides.

### 2006 Central Social Insurance Medical Council Members
(as of April 19th, 2006)

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<tr>
<th>Classification</th>
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<tr>
<td>1. Representatives of insurers and insured individuals, Mariners Insurance, National Health Insurance, and the representatives of business and ship owners</td>
<td>Chikafusa Aoyagi</td>
<td>Head of Administration, Social Insurance Agency</td>
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<td></td>
<td>Tadaaki Tsushima</td>
<td>Senior Director, National Federation of Health Insurance Societies</td>
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<td>Shigeru Kojima</td>
<td>Director, Welfare Policy Division, Japanese Trade Union Confederation (RENGO)</td>
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<td></td>
<td>Hisashi Katsumura</td>
<td>Member, Patient-Oriented Healthcare Council, RENGO</td>
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<td>Kotoro Soma</td>
<td>Director &amp; Auditor, Hitachi, Ltd.</td>
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<td>Norimasa Ouchi</td>
<td>Member of Central Executive Board Committee, All Japan Seamen’s Union</td>
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<td>Tsutomu lizuka</td>
<td>Adviser, Mitsu O.S.K. Lines</td>
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<td>Toshiaki Matsuura</td>
<td>Mayor of Sakaide, Kagawa</td>
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<td>2. Representatives of physicians, dentists, and pharmacists</td>
<td>Yasuhiro Takeda</td>
<td>Vice President, Japan Medical Association</td>
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<td>Mitsuru Suzuki</td>
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<td>Eiki Ishii</td>
<td>Director, Japan Hospital Association</td>
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<td>Mitsuo Wataneb</td>
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<td>3. Representatives of public-interest corporations</td>
<td>Takeshi Tsuchida</td>
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<td>Hisao Endo</td>
<td>Professor, Gakushuin University Faculty of Economics</td>
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<td>Chie Muratai</td>
<td>Adviser, Kanagawa University University of Human Services</td>
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<td>Mari Kobayashi</td>
<td>Professor, The Okuma School of Public Management, Waseda University</td>
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<tr>
<td>4. Specialists</td>
<td>Teruo Harigaya</td>
<td>Mayor of Itakura Town, Gunma</td>
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<td>Shinichi Oshima</td>
<td>President, National Center for Geriatrics and Gerontology</td>
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<td>Takayoshi Mukaida</td>
<td>Director, Astellas Pharma Inc.</td>
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<td>Hiroaki Nakatani</td>
<td>Director, Business Management Department, Takeda Pharmaceutical Company Limited</td>
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<td>Osamu Watanabe</td>
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<td>Adviser, Asahi Kasei Medical Co., Ltd.</td>
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<td>Keiko Okaya</td>
<td>Executive Director, Japanese Nursing Association</td>
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<td></td>
<td>Yuriko Shiraishi</td>
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<td>Makoto Maruyama</td>
<td>Deputy Chairman, Healthcare Reform Division, Social Security Committee</td>
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<td>Sayuri Shiraiishi</td>
<td>Professor, Yokohama City University, International College of Arts and Sciences</td>
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<td>Takeshi Tsuchida</td>
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<td>Masahide Maeda</td>
<td>Dean, Tokyo Metropolitan University Faculty of Urban Liberal Arts</td>
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<td>Adviser, Kanagawa University of Human Services</td>
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<td>4. Specialists</td>
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<td></td>
<td>Norimasa Kurosaki</td>
<td>Professor, Graduate School of Tokyo Medical and Dental University</td>
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**: President
### 2009 Central Social Insurance Medical Council Members (after the election)
**As of December 9, 2009**

<table>
<thead>
<tr>
<th>1. Representatives of insurers and insured individuals, Mariners Insurance, National Health Insurance, and the representatives of business owners and ship owners</th>
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<tr>
<td>Takeshi Kabayashi</td>
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<td>△ Kenji Takahashi</td>
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<td>Satoshi Ushimaru</td>
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<td>Hisao Endo</td>
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<td>Mari Kabayashi</td>
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<td>✴️ Takeo Sekihara</td>
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<td>Sayuri Shiraishi</td>
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<td>Tadahiko Fujihara</td>
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<td>✴️ Akira Nagano</td>
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<td>△ Kanji Negi</td>
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<td>△ Matsuya Takaaki</td>
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<td>△ Akira Matsumoto</td>
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<td>△ Seiichi Mori</td>
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<td>Suga Sakamoto</td>
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<td>Masato Sumitomo</td>
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<td>✴️ Yoshiaki Kitamura</td>
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My position at the Central Social Insurance Medical Council

My position at the Central Social Insurance Medical Council was not only representative of physicians, but also representative of hospitals that employ people in close to 30 job classifications. Therefore, I mentioned opinions from clinical engineers who are playing a significant role in the safety of healthcare. I also mentioned the opinions of MSWs, who are the key to cooperation among hospitals, clinics, and regions. In the Sumo world, they say that training brings results in three years. For this revision, team medicine and MSW were finally described.

I argued that evidence-based payment was preferable. We provide evidence-based medicine; therefore, fees should also be evidence-based. I have argued that we need an explanation as to why basic compensation for inpatient care is what it is.

I also argued that the healthcare system should be changed from products to techniques and from techniques to systems. The time for focusing on products is over. This is not the time to focus on generating profits through the sale of pharmaceuticals. What is needed is techniques and systems. The system should be for patients. Regardless of whether a hospital has patients or not, hospitals must always be ready for patients. Although Japan has not fought a war since World War II, national defense expenditures now total 5 billion yen. That money is used for security that protects the country in case of attack. Similarly, I insisted that we need to have a mutual understanding that government should pay emergency hospitals that agree to accept all patients.

In addition, I also insisted that we should prioritize areas that are ignored, such as surgery and childbirth.

Changes in the Central Social Insurance Medical Council & four major viewpoints

As shown in Slide 21, there were some changes in the membership of the Central Social Insurance Medical Council.
Slide 22 shows four major points, including patient viewpoint. These points have been included throughout the three revisions.

Slide 23 Improving patient QOL and providing easy-to-understand explanations from the patients’ perspective. I suggest the active provision of healthcare information.

Slide 24 shows the viewpoints regarding the promotion of division of labor and cooperation among medical care system functions. This includes the goal of establishing a system for seamless healthcare.

Slide 25 shows the viewpoints for prioritized fields. IT promotion, examination of the cost of safety in the healthcare system, and the handling of new healthcare technology are the issues.

Slide 26 shows the viewpoints regarding the items whose efficiency may be improved, such as contact lens care, evaluation of family dentists, and promotion of the use of generic drugs.

Hospital staff also attended public hearings as speakers.

(Slide 27) For the past three revisions, we had public hearings in Yokohama, Maebashi, and Fukushima. I still believe that we should have held one in Yubari, which suffered financial collapse, and small island areas. We should go to actual sites, observe actual facts, and consider the actual situation. These are the three “actuals,” prioritized by the Kyoto School. One of my friends works at Kyoto University. He has been outside Japan for five years investigating gorillas in Africa. There are some things that we cannot understand until we go to where what we are trying to understand exists. Payers and committee members from public-interest corporations do not know about ICU. I believe they should come and see the actual conditions.
The speakers at the public hearing were determined by drawing; and one person was selected from each medical, dental, and pharmaceutical association, except, that is, from the Japan Hospital Association. Oh, and no one in any of the categories was from a hospital. Therefore, we asked that a person engaged in hospital management be included on the public-interest corporation side.

**Viewpoints: Evaluation of the prioritized fields**
- Secure obstetrics, pediatrics, and emergency care.
- Cooperation among medical institutes on holidays and during night time
- IT promotion
- Examination of medical treatment fees toward the cost of medical care safety
- Examination of the implementation of appropriate insurance for new healthcare technology

**Viewpoints: Evaluation of the items, for which efficiency may be improved**
- Care for contact lenses, Evaluation of inpatient care during the chronic stage, Inappropriately frequent visits of patients in outpatient care
- Appropriate evaluation based on the original purposes of family dentists and pharmacies
- Promoting the use of generic drugs

**Central Social Insurance Medical Council public hearing**
The 1st hearing on January 27 in Yokohama
Public call made for speakers and listened to their opinions.
Spectators are chosen through prior application.
Results Evaluation Subcommittee (only with the members from public-interest corporations and experts)
Evaluation of effects after the revision

**Items hotly discussed in 2006**
1. Receipts with detailed information
2. New prescription forms
3. Nicotine addiction
4. Chronic disease instruction & management fees
5. Employment of IT
6. Safety in medical treatment
7. Pressure ulcer prevention
8. Gaps in return visit fees between hospitals and clinics
9. Inclusion of initial non-referral visit fees in specified fees
10. DPC

**Slides**
- Slide 25: Viewpoints: Evaluation of the prioritized fields
- Slide 26: Viewpoints: Evaluation of the items, for which efficiency may be improved
- Slide 27: Central Social Insurance Medical Council public hearing
- Slide 28: Items hotly discussed in 2006
- Slide 29: Speakers at the public hearing in 2006

(Slide 28) The speakers at the public hearing were determined by drawing; and one person was selected from each medical, dental, and pharmaceutical association, except, that is, from the Japan Hospital Association. Oh, and no one in any of the categories was from a hospital. Therefore, we asked that a person engaged in hospital management be included on the public-interest corporation side.

**Items hotly discussed at the Central Social Insurance Medical Council in 2006.**
Slide 29 shows the items hotly discussed in 2006.

(Slide 30) shows the items for which conclusions were not reached. Currently, committee members from the public-interest corporations have come to clearly state their opinions. In the past, when members from the payers’ side and members from the healthcare provider side disagreed on something, the public-interest corporation side often presented vague opinions. Nowadays, they clearly agree with either this side or that side like a referee making a call, which is good.
I will explain about the revision in 2010. Slide 32 shows DPJ INDEX 2009. They included various policies regarding healthcare, such as increasing the GDP ratio of total medical expenditures to the level of OECD member countries, increasing payouts for inpatient care at regional medical institutions, continuation of public hospitals engaged in four disease and five projects including social insurance hospitals and employees’ pension welfare hospitals, etc. They also mentioned that the composition and operation of the Central Social Insurance Medical Council will be reformed.

Before Central Social Insurance Medical Council elections, I was asked my opinion on the reformation of the council. I wrote what I wanted to say honestly, believing that I would not be elected this time. To my surprise, however, I was selected as a member.

I was actually planning to decline because I did not want to become involved in anything that would interfere with operations at my hospital. However, the Mayor recommended that I accept because to serve would certainly be an honor. When I was preparing to attend the first meeting, I wondered if I should strike out like Asano Takuminokami, or play it cool and wait for my chance like Ooishi Kuranosuke. Of course neither Asano Takuminokami nor any of the forty-seven ronin survived. With this in mind, I felt more relaxed about it in a fatalistic kind of way. I do what I want without considering the consequences.

Changes in the composition of Central Social Insurance Medical Council membership
As is shown in Slide 17, 33, and 34, the composition of Central Social Insurance Medical Council membership changed and so did the balance of the members from the healthcare provider side.

Takeo Sekihara is included as a member from the public-interest corporation side. He is from the Industrial Review by the Central Social Insurance Medical Council

Items for which conclusions were not reached
1. Receipts with detailed information on charges
2. Inclusion of smoking cessation programs in insurance
3. Evaluation of pressure ulcer prevention (First evaluation for healthcare providers)
4. Promotion of generic drug use (new prescription forms)

Committee members from the public-interest corporations summarized the discussion.

August 30, 2009  A change in political administration
Review by the Central Social Insurance Medical Council

DPJ INDEX 2009 (Abstract)
- Maintain medical institutes that protect regional healthcare service
- Increase the GDP ratio against total medical payouts to the level of OECD membership countries
- Increase the number of nurses, healthcare service clerks, social workers, meditators, and helpers as well as the number of physicians
- Payouts will be increased for inpatient care at the regional medical institutes, but the burden of individual patients will not increase.
- Public hospitals engaged in four diseases (Cancer, AMI, CVA, and Diabetes) and five projects (EMS, disaster medical care, medical care in remote areas, perinatal care, and pediatric care) such as national & municipal hospitals, Japan Red Cross hospitals, employees’ pension welfare hospitals, social insurance hospitals, will not be reduced.
- Composition and operation of the Central Social Insurance Medical Council will be reformed.

Changes in the composition of Central Social Insurance Medical Council membership
- Payer side – 7 members
- Healthcare provider side – 7 members
  - Medical association in Japan – 3 members
  - Hospital organizations – 2 members
  - JDA – 1 member
  - JPA – 1 member
- Public-interest corporation side – 6 members
  - JMA – 0 member
  - Prefecture medical associations – 2 members
    - Kunihio Suzuki (Ibaraki Medical Association)
    - Hideki Adachi (Kyoto Medical Association)
  - Medical university – 1 member
    - Takamasa Kayama (Yamagata University)
Bank of Japan, and once was the Manager of the New York Office. He also underwent surgery for cancer.

I also tried my best to increase the points for the department of surgery during my service, and spoke with Toshiharu Yamaguchi, Assistant Director at the Cancer Institute Hospital, and Tadashi Iwanaka, Professor at The University of Tokyo Hospital Department of Pediatrics. When I knew that we were going to meet, I felt confident that I could convince him of the need for change. After the meeting, Mr. Sekihara stated, “I used to believe that the hardest workers in Japan were bankers. However, after experiencing surgery, I realized the hardest working people in Japan are healthcare professionals. Surgeons, in particular, need highly developed skill and work for long hours at a stretch. Compared with what they provide, their compensation is not much, which is unacceptable.”

Hisao Endo, Chairman of the Central Social Insurance Medical Council had to warn him stating, “Mr. Sekihara, you may not fully understand your position. Please don’t forget that you are representing the public-interest corporations.” Mr. Sekihara, however, understood the reality through his experience. It was a very important thing.

### Changes for positive revision

(Slide 35) In the end, the revised rate was +0.19%. This is something great, and I was impressed about it. It had been negative; therefore, the government shifted gears from “reverse” to “drive”. My actual goal was 10%; however, the fact that the increase was positive makes it a great outcome.

The basic payouts for dental treatment have increased significantly. Some say that it is the result of politics; however, I’m not entirely convinced. The payouts for dental treatment have not changed much over the past 10 years while the payouts for pharmaceuticals increased from 1 to 5 trillion yen. There are many working poor in dentistry with annual incomes of less than 3 million yen. So, this increase in payouts for dental care makes good sense.

Unfortunately, inpatient and outpatient care were divided into separate categories and there are some gaps in between them. However, the outpatient care also increased a bit.

(Slide 36) Treatment payouts had decreased gradually,
with simple math showing 7.8% decrease and 10% decrease using compound interest calculations.

(Slide 37) Return visits went to 69 points. We had to set the rate somewhere between the clinic rate of 71 points and the hospital rate of 60 points, but it was difficult to decide. However, under the deft leadership of Hideki Adachi of Central Social Insurance Medical Council member and MHLW Minister state affairs officer Shinya Adachi, we arrived at what we felt was a reasonable compromise.

Slide 38 shows an overview of the finances related to outpatient treatment. As is shown above right, improvements, including a reevaluation of laboratory testing contributed to reducing costs by approximately 40 billion yen. The revision of payouts for return clinic visits shown below right cut 20 billion yen. As is shown in Slide 37, a one-point change cuts 10 billion yen. Adding the 40 billion yen from outpatient treatment to the above-described savings brings the amount to approximately 100 billion. Revisions in payouts and outpatient management points shown below left on Slide 38 come to approximately 30 billion yen. New items to be evaluated shown above left, such as pediatric emergency outpatient treatment and newborn treatment, come to approximately 70 billion yen. The JHA insisted on the inclusion of emergency care in inpatient care; however, the MHLW did not agree.

The points of revision in FY 2010 are shown in Slides 39 and 40. You see the term “assistant,” which means uncertified individuals. In other words, unemployed individuals, which account for more than 5.1% of the working population, should be hired by the healthcare industry, a core strategic growth industry. When I asked the MHLW about the training for these assistants, they answered that such training would be nice, but that it was not required. This means that anyone should be alright for hospitals.

However, local government hospitals don’t have it so easy. They think hospitals should be managed cleanly, correctly, and beautifully. Therefore, if we ask them about training, administration personnel answer, “Do it right.” However, if we ask MHLW officials, they say, “Don’t ask us. Teach your staff.” So, don’t ask any questions. Just take whatever they give you. Evaluation of team medicine is shown at the bottom on Slide 39. You simply hire and train.

Slide 40 shows priority items in the revision.

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### Revised financial resources related to outpatient treatment

40 billion yen

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<th>&lt;Return visit treatment fees&gt;</th>
<th>&lt;Total&gt;</th>
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<th>&lt;Clinics&gt;</th>
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5-minute requirement
- Visits more than one departments

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Japan Hospitals No. 30 / July 2011 ● 35
What I thought after participating in the Central Social Insurance Medical Council

Slide 41 shows what I thought after participating in the Central Social Insurance Medical Council. The forces that the healthcare industry is up against are very large, such as the Japan Federation of Economic Organizations, the Japanese Trade Union Confederation, the Japan Health Insurance Association, and major pharmaceutical companies. If the healthcare industry is divided into two, physicians at clinics and physicians at hospitals, we cannot win. We need to include a wide range of individuals on the healthcare industry side, not only from the three medical associations, but also from other fields, such...
as the Japanese Nursing Association with its 2 million members, patient associations, and residents living in the various regions.

Furthermore, individuals working at hospitals are also required to be aware of costs. The head of a department of surgery who does not know about the points for the surgeries he is performing, and a nurse who wastes expensive disposable materials are unacceptable. One of my friends who is an executive at a medical association says to such individuals, “You are wasting the money we have earned with our blood, sweat and tears.” That is very true. We all need to be more aware of costs in general.

I also want the JMA to change. If they know the severe conditions at hospitals and pretend as if they do not, it is unfair. If they really don’t know about it, they are fools. I always say this to the JMA; however, they always say, “It is your misunderstanding.” If it is really my misunderstanding, I want them to prove it. The JMA has not done anything beneficial for hospitals.

Future direction of the Central Social Insurance Medical Council

Let’s think about the future direction of the Central Social Insurance Medical Council. First of all, we need to depart from imposed plans. Committee members determine themes; and although we discuss these once a month as the MHLW requests us to do, we also propose themes and submit data. Dr. Kayama was the one who came up with this idea. When I first met him, he struck me as an unusual selection. He liked to shoot people from behind with comments like, “Your presentation is like a junior high school kid’s. It’s like a simple report.” He also said, “You need to support your opinions with more data.” I suppose he came off like that because he is a researcher and used to giving presentations.

My opinions are experience-based rather than evidence-based. It’s EBM, but his EBM and my EBM are different. Because I had no statistics with me, I was at a loss for words. However, while I listened to him, I also noticed weak points in his position. He had lots of figures, but they didn’t back up his points, and sometimes the figures were simply incorrect. When I pointed such problems out to him, he slowly seemed to realize that people working on the front lines might know what they are talking about. At that point I began to realize that I could work with him. Now, using his strong points and my strong points, we are working together.

Dr. Kayama came up with the idea that we should move away from imposed plans, and we decided to work together.

Future direction of the Central Social Insurance Medical Council

- Departure from imposed plans (theme proposals)
- Resolution of long-term issues
  - Separation of technology and products
  - Basic payouts for inpatient treatment
  - Regional characteristics
  - Evaluation of multiple department visits
- Consumption tax
- Role-sharing among healthcare professionals

Future direction of the Central Social Insurance Medical Council

- Total financial resources + total labor: Healthcare industry
- Physicians working at their own clinics and physicians working at hospitals
- Forward & back
- From 3 medical associations to the entire healthcare industry
- Physicians working at hospitals need to change.
  The Japan Medical Association needs to change.

Future direction of the Central Social Insurance Medical Council

Team Medicine

From square to circle

Attempt at Ako-City Hospital

Slide 43 shows my favorite Japanese character. I like to think of this as representing team medicine involving three different professionals, physicians, pharmacists,
and nurses. Because there are 30 different professionals working to provide care, the break in the circle has closed, but not yet completely. This gap causes conflicts in healthcare, but it is also a gap that might produce a Nobel Prize.

I hung this character in the waiting room of my hospital. The gap in the circle might also be closed with the help of patients, support from families, the power of God, and luck. I also posted the following message: “I hope this circle will someday be complete.” However, what I really want to say is not written there. What I really want to say is that I hope you all understand that no matter how hard we try or how advanced our facilities and skills become, we cannot always save the people who come to us. I want to say that after a certain point, there is nothing that can be done.

I’ll never forget an experience I had. On the third of January, a man returning to Osaka on the Sanyo Expressway after visiting Okayama to pray at Mogami Inari Shrine was brought to our hospital in bad condition. In spite of our best efforts, we were unable to save the patient. In their shock and confusion, the family couldn’t believe that this man who had been alive and in good spirits was now gone. One of the family members turned to the nurses and said, “He would still be alive if he had been taken to a bigger hospital.” To think that the nurses had sacrificed time with their own families to be here to help those in need made it difficult to listen to such a cruel comment.

This is happening every day throughout Japan. If we provide emergency care, we are required to accept any and all patients. Pitchers sometimes pitch home runs. We shouldn’t complain if they don’t always pitch strikeouts. If you insist on the pitcher never giving up a homerun, you end up with a pitcher who only pitches walks. It is the same for hospitals. If you criticize them for losing patients, they’ll just start rejecting ambulances. This is one of the problems in emergency care in Japan.

(Slide 44) This is an example using my name and staff. If I get injured in a car accident on my way home, these people will take care of me whether they are my first pick or not.

It is often said that public hospitals are not efficient. On of the ways we try to change this is to hang one of three pictures on the backside of a medical office door. (Slide 45). The picture shown above right is hung on the day we have many empty beds. I am crying. The picture shown below left is for the day we have enough inpatients. The picture shown below right is for the day on which the beds are filled with patients. Workers can see how I feel on the day. They should feel that they have to get more inpatients because I am crying. In order to make at least 1 yen profit, we need to be efficient.

A member of the labor union said, “When you are smiling, the staff is crying.” I said, “What are you talking about? I’m here working hard from morning till night. I could be happier on the golf course, where I wouldn’t need to see your face.” But, even though we shout such things back and forth, we get along just fine.

Bright seedlings

I want to talk about bright seedlings before ending this lecture.
In some areas, regional resident movements have started to support their healthcare systems. Hyogo Prefectural Kaibara Hospital Pediatric Care Support Association is one example. Kaibara is a small town located close to Sasayama, Tanba, in Hyogo with a population of about 40,000. The hospital’s pediatricians dropped from four to one and Director Shozo Waku was also getting ready to retire. One morning, someone in the waiting room at the Department of Pediatrics said, “The doctor always looks sleepy. We need to get another doctor in here, quick.” One mom heard this and said, “What are you talking about? He was up all night taking care of my son. He did that the night before, too. If you were up two nights in a row, how would you look?” Then, the person who complained about the doctor apologized saying, “I didn’t know that. But everyone in the town says the same thing. I should tell them the situation.” Soon after that, a pediatric care support association was established and it started a wide range of projects, such as giving thank-you letters to physicians from children who recovered and a campaign to collect signatures to support the hospital system. They collected 70,000 signatures in the region, which has a population of 40,000.

One former employee returned to the hospital, and Dr. Waku decided to continue. This news was reported in a Kobe Newspaper, which moved Masafumi Matsuo, Professor at Kobe University to send two physicians from the university to the hospital. After four physicians were added, it was reported in the national newspapers. One physician read about it in a blog and asked to join the staff. There were finally five pediatricians at the hospital. These people are not motivated by money, but by challenging work. This movement was very successful.

Another bright seedling is the increase in donations. The number of donations to our hospital has increased. Many bereaved family also started donating. Donations from the bereaved families are a sure sign of the families’ appreciation to all the individuals involved in the caring for the patient, including office clerks, nurses, physicians,
the ones who placed the body in a coffin, and the ones who saw the deceased off to the funeral home. If it were baseball, it would mean a perfect game. If it were sumo, it would mean a no-loss victory.

Seeing these things happening, I felt that it may be time for me to stop working. Increased donations meant that my work was finished. I am relieved that I am able to retire without anxiety. After retiring, I am thinking about Tokyo and other challenges.

I guess that regional healthcare is regional culture that we should support like fan clubs for baseball teams, supporters for soccer teams, and Tanimachi for sumo. This way, the healthcare system has a fighting chance.

### Ideal healthcare system

(Slide 47) The Japanese Ministry of Finance has too much influence on the healthcare system. They order the MHLW to do this and that to reduce medical payouts. As shown in the chart, hospitals are swayed by them and patients are kept completely uninformed. This is like the earth-centered theory in vogue before Copernicus, with this one centering on the Ministry of Finance.

(Slide 48) Individuals engaged in patient care should revolve around the patient, the MHLW should give advice, and the Ministry of Finance should provide financial support.

Recently, Pluto was downgraded and is no longer classified as a planet. I am thinking about downgrading the Ministry of Finance and removing it from the slides I present in the future.

(Slide 49) Anyway, the important thing is to provide good healthcare, efficiently, with people in the regions. If we realize such healthcare, the industry will become great regardless of the organization, be it public or private.

The worst people in healthcare would be above average in the business world. They would be the very best in the world of politics. I’m looking forward the time in which individuals engaged in healthcare can be happy.

Thank you for your listening to my loose thoughts.

**President Sakai:** Thank you, Dr. Henmi. We got your message loud and clear: “Provide efficient healthcare in the regions.” Dr. Henmi has expressed his opinions to help improve conditions for those who are engaged in healthcare. We are all looking forward to your continual support and contributions to Japan Hospital Association.
This article is an enhanced and updated version of the one that appeared in Japan Hospitals, the Journal of the Japan Hospital association, Volume 26 Dated July 2007. The title has been changed slightly from the original, and the changes since written, not only in Japan, have been significant enough to warrant an update. I believe this topic is worth revisiting in light of the amount of activity worldwide in medical tourism.

I earlier wrote that the concept of medical tourism is not a new one. The first recorded instance of medical tourism dates back thousands of years to when Greek pilgrims traveled from all over the Mediterranean to the small territory in the Sardonic Gulf called Epidauria. This territory was the sanctuary of the healing god Asklepios. Epidauria became the original travel destination for medical tourism (Wikipedia 2007).

Today, medical tourism is a contemporary buzzword with hundreds of thousands of travelers combining a healthcare need in a tourist destination according to most media reports. Medical tourism is becoming more and more popular with prices for treatment abroad becoming highly attractive to worldwide patients. It is believed that more than 50,000 people just from the UK travelled for treatment outside of the UK two years ago (Source: International Passenger Survey 2005). It seems that medical tourism from the UK is on the increase helped further by the European ruling that the National Health Service must fund treatment in the EU if patients face a significant or undue delay. However, there appears no data on the number of patients from the United Kingdom traveling outside the EU for treatment today. Even Cuba attracted more than 20,000 healthcare tourists in 2006 (Wikipedia.org 2007). Cuba was recently highlighted in Michael Moore’s movie ‘Sicko’ which probably increased foreign interest in Cuban healthcare in 2007, where I believe it was said that costs are much, much less than equivalent care in the United States. Recently however, there has been serious skepticism about the numbers quoted and requests for more evidence of what many feel is an exaggerated volume of medical travelers (http://www.healthcarefinancenews.com/blog/dont-overstate-global-medical-tourism-revenue).

In the United States, The Medical Tourism Association was recently formed with the 3rd Annual World Medical Tourism & Global Healthcare Congress scheduled for September 2010 in Los Angeles. The Medical Tourism Association’s homepage states that it is dedicated to the advancement of medical tourism as an alternative to conventional healthcare in American hospitals. Today, The Medical Tourism Association is said to be made up of organizations from all around the world working together to improve healthcare and enable people who live in the United States to obtain quality medical treatment at affordable prices overseas. However, there is no mention of Japan having any connection to these listed organizations.

More than 400,000 international patients are treated at Bumrungrad International Hospital annually in Thailand, and their website indicates that visitors from almost 200 countries come to that hospital for medical care. This hospital is accredited by the Joint Commission International (JCI) and several of its medical specialty
MEDICAL TOURISM 101

Medical tourism refers to the thousands of Americans who travel to other countries each year in search of more affordable health care. Some go for elective surgeries, such as breast augmentation or dental work, while others pursue medically necessary procedures.

COST COMPARISON

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<th>PROCEDURE</th>
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<td>Laparoscopic gastric bypass</td>
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<tr>
<td>Cosmetic</td>
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<td>Nose job (rhinoplasty)</td>
<td>$4,200</td>
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<tr>
<td>Tummy tuck (abdominoplasty)</td>
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</tbody>
</table>

Note: Prices may vary. Source: MedSolution.com

COMMON DESTINATIONS

Countries around the world are increasingly vying for medical tourism business, advertising their hospitals and tourist attractions to perspective customers online.
programs, like primary stroke care, are additionally certified/accredited by the JCI.

Not only is Bumrungrad in Thailand geared up to accommodate the tremendous growth in medical tourists, but India has also been a leader in attracting this increasing market for healthcare services abroad. According to one website, “Leading the race in attracting medical tourists to India is Apollo Hospitals, the healthcare powerhouse of India. Traveling from countries all around the world, medical tourists seek essential healthcare services. Apollo Hospitals render superlative services in the lines of International Patient Care, and has, therefore, carved a niche in the Health Tourism sector. Medical Tourism in India has witnessed an enormous growth, and has opened a world of opportunities in infrastructure in the private and voluntary sector.” (Apollo website) Like Bumrungrad International Hospital in Bangkok, Apollo Hospitals have gone the extra step by being accredited by the JCI to give medical tourists confidence that the quality of their services is equal to or better than that of the United States. With more than 7000 beds in more than 40 hospitals across India, their reputation for being a high quality, low cost provider of healthcare is well known today, and costs are a major decisional factor for patients once they are assured of quality. According to the Apollo website: “A heart bypass surgery in India costs US$ 6,500, while in the US it costs between US$ 30,000 and US$ 80,000. This is a huge, untapped market, not just for therapeutic medical tourism but also for curative treatment. Most of the Apollo Hospitals Doctors are trained or specialized in UK, USA, Australia etc. and compare with the best in the world, in their chosen specialties.” The Wockhardt Hospitals Group in India boasts an association with Harvard Medical International and displays the famous Harvard University logo on their website. Several overseas medical centers have affiliation/association with Johns Hopkins Medicine International as a drawing card for foreign patients. Almost every website outside of the United States lists prices giving a high and low range and comparing them to those of the USA.

For Japan, I believe we are reluctant to discuss prices because it is apparent to me working here in a major Japanese hospital that we cannot compete on cost alone. Secondarily, we cannot compete if we maintain the average length of stay (ALOS) experienced by Japanese patients. I will give you an example using total hip replacement, a common procedure done worldwide. In my hospital, the range for total hip replacement in 2009 was $19,300–$26,000 using 84 yen to the US$ at the time of this writing which does not include the room charges and meals (which are partly subsidized). You can see the prices in the previous chart for India and Singapore at $5,000 and $12,000 respectively to be well under my lowest charge. At the time of this writing, one South Korean hospital was running a campaign for foreign patients at a bundled charge of $15,560, still below my hospital’s lowest figure. The average lengths of stay in India, Singapore and South Korea are not vastly different from those in the United States. Using the same hip replacement surgical procedure, the ALOS range was 27.5 days to 40.6 days for our Japanese patients. Most foreigners expect a private room which at 12,600 yen per day at Kameda Medical Center, increases the totals above to an additional $4,125 to $6,090 making Japan costs even less competitive on the cost factor if these length of stays are maintained.

However, this is much less that the Southeastern USA average of slightly over $100,000 (estimate from www.CompanionGlobalHealthcare.com). It is very important to note that the charges above by the Kameda Medical Center are ones charged to Japanese patients covered by national health insurance. Most hospitals in Japan charge 150%-200% for patients not enrolled in Japanese national health insurance. At $150%, all above factors considered, the range now increases to approximately $35,000 - $48,000, still much less than the USA average but not competitive with other Asian hospitals. Foreign patients not enrolled in Japanese national health insurance have not been contributing monthly to this insurance program nor have their employers made matching contributions, so charging foreign patient the same as Japanese patients would be an unfair benefit. If the media were to note that prices for foreign patients were the same as Japanese citizens contributing for years into national health insurance, it would most certainly give fuel to those opposed to accepting foreign patients. It is widely believed here that the Japan Medical Association is opposed to medical tourism and this was stated on prime time news (NHK Channel BS 101 on 7 September 2010). The points that I hear repeatedly made are:

1. Why should foreign patients be given priority over Japanese patients when the taxpayer supported healthcare system is designed to benefit Japanese
citizens, and legal immigrants?

2. Increasing volumes of foreign patients will result in longer waiting times for Japanese patients and this is unfair.

3. With resources being scarce, foreign patients reduce the resources that should be focused on Japanese patients.

4. All hospitals in Japan are not-for-profit designated and soliciting patients for profit will be a violation of the Japan Medical Service Law.

5. With a motive for profit, patients with equal needs but financially weaker will be largely ignored.

During the aforementioned news program, Dr. Kaihara of the Iryo Fukushi Daigaku raised the point that perhaps hospitals in Japan should have some limit as to the numbers of foreign patients that can be accepted. On the same day, Osaka University Hospital signed a contract with a Saudi hospital to accept up to 30 patients per year for an experimental heart procedure that looks promising to forestall or delay the need for heart transplantation using tissue regeneration techniques.

For facilitators, patients and insurers who may put a priority on cost, Japan will not be considered as a cost effective medical tourism destination. In spite of having written agreements with international insurance companies and noted facilitators for almost one year, the Kameda Medical Center has yet to have a successfully referred foreign patient from the United States or Europe.

Countries like Singapore, Malaysia, Thailand and India are expected to ride this health industry boom in the near future. Presently, there are only 140,000 hospitals serving an Asian population of 3.5 billion. With the Asian population expected to grow to 5.6 billion by 2050, the consumer expenditure on healthcare services and goods will increase from US$90 billion in 1999 to US$188 billion in 2013. Malaysia is targeting the Middle East and China to generate revenues of 2.2 billion ringgit by 2010. “These emerging markets prove that there’s immense potential in the Asian healthcare business and it will see a stupendous growth”, remarked Ms Tan-Hoong Chu Eng, MD, Parkway Promotions Pte Ltd., a subsidiary company of Parkway-Holdings Ltd, the largest private healthcare group in Asia. (Expenditure estimates from Healthcare Management 2005). Singapore, realizing the magnitude of this market opportunity, mandated JCI accreditation for its government hospitals and the large private hospitals in Singapore have also been successfully accredited by the JCI.

Not to be left behind, South Korea jumped into this market recently. Creating a Council for Korea Medicine Overseas Promotion (CKMOP), it is funded by almost 40 of South Korea’s government and private hospitals. It has developed International Patient Guidelines which can be seen at www.koreaealthtour.co.kr. According to a Council official “The average charge for an in-patient visit in a US hospital is $3,762, which is 13 times higher than in South Korea. The average charge for outpatients in the US is $130 which is 9 times higher than in South Korea”. Severance Hospital of Yonsei University in Seoul was the first hospital in South Korea to achieved JCI accreditation in May of 2007, and was reaccredited in 2010. (Healthmedicaltourism.org). Six other South Korean Hospitals have followed them with a total of 7 hospitals in South Korea now JCI accredited at the time of this writing with several more in the planning stage. According to the most recent information from The Korea Healthcare Global Project and The Korea Health Industry Development Institute (HHIDI), in 2009, 27,000 foreign patients came to Korea for healthcare (www.khidi.or.kr). Most interesting perhaps is the proactive stance of the South Korean government. The South Korean Medical Law was amended on 1 May of 2009 to require all healthcare providers who treat foreign patients for profit to register with the Global Healthcare Business Center of KHIDI. All medical tourism facilitators headquartered in South Korea must also register with KHIDI. And last, but not least, healthcare providers and medical tourism facilitators who attract/treat foreign patients for profit must submit annual reports to KHIDI which must include the numbers of patients attracted/treated. It has developed International Patient Guidelines which can be seen at www.koreaealthtour.co.kr. Predictions by KHIDI are for 200,000 foreign patients in 2013. Japan on the other hand is only starting to explore possibilities forming an organization to ‘prepare’ for acceptance of foreign patients. This organization is The Japan Medical Tourism Support Center (JMTSC) formed in 2009. Their objective is:

“Our objective is to develop medical tourism that globally provides medical health checkup services and their related treatments. In July 2009 at the workshop established within the Ministry of Economy, Trade and
Industry, we set guidelines for medical institutions and businesses that support medical tourism. With the members of this study group, the prominent medical institutions that participate in this project are making preparations to welcome foreign patients.”

Only 7 Japanese hospitals, all in Tokyo, are participating in this ‘preparation’ and none are JCI accredited or have expressed (to my knowledge) any interest in being JCI accredited. In fact, a spokesman from one of the leading hospitals participating in that organization told me that his hospital had no interest nor plans to undergo JCI accreditation. Hospitals in Japan have a strong corporate culture of domesticity and not-for-profit background (http://www.jmtsc.org/tokyo/en/). As this is written, three emails to the Japan Medical Tourism Support Center have gone unanswered and the phone number listed is answered by someone in the Japan Travel Bureau (JTB) who referred me to a JTB contact. I have not seen any guidelines and although the JMTSC website can be accessed it seems to be a dormant site.

However, in June of 2011, I received a copy of the newly published guidelines for the treatment of foreign patients that was distributed to healthcare organizations by the Ministry of Health, Labor and Welfare. It remains to be seen on how useful or effective this will be.

Another interesting discovery was that the Ministry of Land, Infrastructure, Transportation and Tourism website and links have no real mention of medical tourism except for the following from the Japan Tourism Agency –

“The Japan Tourism Agency (JTA) is looking to boost the number of medical tourists coming from China. The JTA hopes to boost the number of medical tourists to Japan to 100 a year. The agency set up a study panel on medical tourism targeting China’s wealthy class last year and has been looking into ways to secure interpreters and responses to medical accidents. The agency is also planning to conduct a survey on Chinese tourists and medical institutions in Japan. They will ask what medical treatment they want, their preferred payment methods and what kind of tourism information they are interested in. So far, 30 Chinese have joined medical tours to Japan organized by Nippon Travel Agency. The Tokyo-based company launched package tours in April last year, incorporating cancer-detecting PET (positron emission tomography) checks along with the usual sightseeing.” Source: http://www.imtjonline.com/news/?entryid82=187688 By any definition, this is not an ambitious goal.

The question regarding this global trend is whether Japan remains incapable of competing in this market opportunity, or whether it has no desire to do so, or both. It is my opinion that Japan’s top medical institutions could compete on the quality aspect, but cannot compete on many other aspects at the present time. The most successful medical tourist destinations are in developing countries, mostly because of cost advantages.

Although I believe Japan’s top hospitals could compete in this market on the quality component, the other components that are absent or weak give hospitals in Japan a big disadvantage. Although cost, generally speaking, is less than that of the United States, it seems to me that this is not the most serious disadvantage. Little has changed since I wrote this article in 2007, but some initiatives have emerged. I will address these later

For foreigners, and in particular Americans, some assurance that the standards in overseas destinations are evaluated and that organizations are accredited is an important factor. The Joint Commission International has accredited more than 300 hospitals in 39 countries as of the summer of 2009, but Japan was not among the countries listed as having any JCI accredited organizations. My hospital, The Kameda Medical Center achieved Joint Commission International accreditation in August of 2009 to become the first hospital in Japan to become accredited using the global standards of the JCI and to date we have remained mostly isolation in this regard. Unlike South Korea where a total of 6 hospitals quickly followed the first JCI accredited hospital in Seoul (mentioned above), one to date has followed Kameda Medical Center’s lead. In March of 2011, NTT Higashi Kanto Medical Center became the second hospital in Japan to become JCI accredited. To Japan’s credit however, there is accreditation of most hospitals in Japan that are reimbursed by a bundled payment mechanism called DPC, by the Japan Council for Health Care Quality, but this represents less than 20% of hospitals in Japan, and the more than 80,000 medical clinics (many of which have 19 beds or less and often act as mini hospitals)) are quite isolated from any accreditation oversight. Accreditation by the Japan Council for Health Care Quality is voluntary.

Obstacles to obtaining JCI accreditation for hospitals in Japan are significant. Although JCI accreditation manuals and standards are translated into several languages
worldwide, there has been no translation of the standards into Japanese, although December of 2010 is a target date for Version 4 to be completed in Japanese under a contract between JCI and a Japanese publisher. Without a comprehension of the standards by all staff within an organization, it is difficult if not impossible, to influence and improve the corporate culture. Most hospitals in Japan, unlike those in Singapore, for example, do not have an international staff, and other than physicians, have poor to non-existent English language skills. In Singapore again as an example, foreign trained physicians can obtain medical licensure to practice there. In Japan, this is not possible. Patient confidence is much enhanced by being able to communicate in their native language, particularly when undergoing medical treatment and all patient care staff in Singaporean hospitals can speak English. Therefore, the lack of internationally accredited hospitals in Japan as well as few multilingual healthcare providers combined with no possibility of practice privileges for foreign trained physicians are major obstacles to choosing Japan as a health tourism destination.

Japanese hospitals have others barriers as well. Since advertising is prohibited, those few hospitals maintaining an interactive website are unable to use the full potential of the Internet to attract foreign patients. Most websites are only in Japanese, and when in English are only generally descriptive and not useful in patient decision making. Costs are never revealed nor are any quality criteria or outcome data presented. If one looks at the Bumrungrad or Apollo websites, the differences are readily apparent. Americans, in particular, are always interested in the qualifications of the physicians treating them. Many know that in Japan, physicians are licensed for life without a renewal mechanism, and that continuing medical education is not mandatory to maintain an active medical license. Although the concept of credentialing and privileging of physicians is known here, in actual practice in most hospitals in Japan, these programs do not exist. They do, however exist elsewhere (for an example see http://www.bumrungrad.com/Overseas-Medical-Care/pdf/How%20to%20Evaluate%20Your%20Overseas%20Healthcare%20Provider.pdf) Although the DPC reimbursed hospitals have a shorter average length of hospital stay than the national average of over 30 days, it is still more than twice the average in hospitals in the United States which concerns patients who may be contemplating care in Japan.

While costs in Japan have been lower than in the United States, this should be an advantage for Japanese hospitals wanting to compete for foreign patients, but few hospitals, have considered a fee structure for medical tourists. As this article is written, the Japanese yen is very strong and the US$ very weak (80 yen/US$) adding a further disadvantage. Japanese citizens pay a portion of their salary monthly, matched by an almost equal amount from their employer, under the mandatory national health insurance scheme. For many here, offering the same charge for healthcare to those who have not been paying into national healthcare programs seems unfair. Therefore, a fee schedule for foreigners not covered by some form of national healthcare scheme, presents a problem, and fees are often arbitrarily set at a percentage of the national health insurance charges including bundled DPC charges. Whereas those hospitals actively attracting medical tourism outside Japan can quote specific charges for procedures, the answer from most Japanese hospitals will probably be “it depends” which is not precise enough for patient decision making. Accepting and processing foreign insurance claims is equally problematic for Japanese hospitals. Many foreign health insurers want copies of the medical record in English which is no problem in Singapore, Hong Kong, and the Philippines and in internationally accredited hospitals such as Bumrungrad. Preparing medical records in English, processing claims forms in English, justifying lengths of stay two to three times longer than an insurer is willing to pay for, currency conversion issues, patient deductibles and co-payment collection, and negotiating with international insurers is often extremely difficult and time consuming for Japanese hospitals. In Japan, patients pay their co-payment on discharge and the remainder is charged to national health insurance. For outpatients, the 30% copayment is paid at the point of care with the remainder charged to national health insurance. For outpatients, the 30% copayment is paid at the point of care with the remainder charged to national health insurance. The private payer is a rarity, since virtually all residents of Japan are enrolled in some form of national healthcare insurance. The foreign patient then becomes a reimbursement exception, and a difficult one at that. Even when pre-approval is given by the foreign insurance company, it is not a guarantee of payment as billed. Claims made by my hospital have been denied due to pre-existing conditions that are excluded in the patient’s insurance policy and this is often not discovered
until long after the patient is discharged. The patient is then responsible for payment and often cannot pay due to insufficient funds. Western patients often ask for discounts, as if healthcare services are negotiable. Many patients want to make monthly payments which is not a usual and accepted practice here in Japan. Once a patient returns to his or her home country the odds of eventually getting full reimbursement diminishes. Often the insurer wants copies of the medical record in English in order to process the claim and this is a major problem. Hospitals do not have professionally trained translators and the cost to outsource the translation of medical records is extremely expensive.

Our policy at Kameda is that this is the insurer’s or the patient’s responsibility although we will provide narrative summaries, operation reports, and some other limited records in English. Certainly if a Japanese patient was admitted and treated in a hospital in the United States we could not expect a request to have the medical records provided in Japanese to be looked on favorably. In fact, it would probably be seen as a totally unreasonable request and denied outright.

Many physicians in Japan have adequate English language skills, but for inpatients, the majority of hospital staff contact with the foreign patient is usually not the attending physician. These contacts are mainly nurses and also are lab technicians, x-ray technicians, pharmacists and other paramedical personnel. Significant multilingual support staff can be required to maintain adequate communication with the patient and their family during the inpatient stay (and outpatient encounters) to not only to ensure a high level of explanation and informed consent, but to have a high level of patient satisfaction. This often means the hiring of translators and interpreters at an additional hospital expense. My hospital has five Chinese nurses who have passed the Japanese nursing license examination. We have nurses from the Philippines on staff that are working and studying for the Japan nursing license examination but few outsiders except for Chinese have been successful because kanji characters are most difficult to master. Another important factor in addition to poor communication skills is that internal resistance to accepting foreign patients is one of culture. There is probably not a kind way to put it, but foreign patients are often referred to as “high maintenance”. Western patients in particular are not hesitant to complain, often aggressively which adds to staff stress. The informational needs of foreign patients far exceed the informational needs of Japanese patients and stereotypically foreign patients are seen as demanding and arrogant. The medical traveler is frequently conditioned by facilitator propaganda to expect a resort like atmosphere with resort level amenities and many hospitals just getting started in providing medical care to foreign patients cannot meet the patient’s expectations. In my opinion, this is particularly true of Japan. Hospitals in Japan also have a conditioned bias due to the high numbers of illegal immigrants in Japan who appear for medical treatment but cannot pay the bill. This is an increasing problem for Japan since these individuals are not enrolled in national health insurance but cannot be denied emergency care when they arrive in the emergency room and subsequently get admitted. One Japanese hospital in Tokyo that I recently visited is going to attempt JCI accreditation next year and when I met with their staff, they expressed a concern that foreigners here illegally who cannot pay for care might start seeking care there due to the enhanced reputation occasioned by JCI accreditation. Their motive as well as Kameda’s for seeking JCI accreditation is improving the quality and safety of care, not positioning for medical tourism.

For any hospital accepting foreign patients electively, patient selection is a key to patient and insurer satisfaction. The first challenge is that the accepting physician at the hospital probably has never spoken to the patient directly nor directly examined the patient prior to arrival and subsequent admission. It is considered imperative to have a comprehensive review of medical information and in particular when images are involved. Getting diagnostic quality images from the patient is so very important to a due diligence acceptance. DVDs and scanned images are just not acceptable in most cases. The reason the patient is choosing to go overseas for medical care is also an important factor. Patients who are unhappy or unsatisfied with healthcare in their country for whatever reason are likely not to be completely satisfied in an unfamiliar medical care environment. Rarely is it the cost alone, particularly if they are privately insured. Patients often want treatment that is experimental, not covered by their insurer, or simply don’t agree with their home country physician’s opinion and can’t find a doctor who will do what they want done. They often feel that they can get a doctor in a much less regulated country to do their bidding, so to speak. These patients, if ‘dumped’ on an
unsuspecting overseas provider can be a most unpleasant experience for all concerned and breed reluctance to accept foreign patients even based on one really bad experience. Many Japanese hospitals consider the western patient to be very litigious and this makes them cautious or reluctant to accept the high risk/high maintenance patient. Every hospital with a relatively low volume of foreign patients has some anxiety in accepting them.

Another seemingly insurmountable obstacle in Japan is a technology lag. The medical device approval process in Japan is expensive and slow and for some newer technologies, there are often delays of several years after approval in Europe and the United States. Many pharmaceuticals long available outside of Japan are still not approved for use in Japan and are delayed in their introduction. This frustrates Japanese physicians trained outside of Japan in these new technologies and prevents them from offering some of these procedures to their Japanese patients here and in providing them with new pharmaceuticals. A physician I know at Juntendo University Hospital in Tokyo practices one week a month in the United States, treating Japanese patients (who can afford it) with the latest cutting edge, life saving procedures using technology not yet approved for use in Japan. Same day surgery is common outside of Japan. It is not so common here in comparison, which contributes to long hospital stays compared to other developed countries. Organ transplants are exceedingly rare in Japan and are routine in many other countries. Thus, foreign patients are often not accepted because in many instances, cutting edge treatment cannot be provided.

Today, many companies have been created to work with hospitals outside the United States to minimize the cost, offer discounted air travel, hotel stays for families and even optional tour programs, when appropriate. Airport pickup, assistance with visa applications, and VIP treatment are all part of the marketing package. From the Bumrungrad International Hospital website: "If you’ve never visited a hospital overseas, don’t worry. We see 1,000 international patients every day, so we have plenty of experience arranging everything from doctor’s appointments to airport pick up and hotel accommodation." This concern is most reassuring to the foreign patient.

Japan is a highly developed country with sophisticated transportation and communication systems. Japan is a very clean country compared to many in Asia, the drinking water system is as safe as that of the United States Japan has not experienced terrorist bombings or abductions of foreigners, as has happened in other tourist destinations. Tourists, who previously sought sun, sand and surf as preferences in travel, may now be considering security, safety and sanitation as main concerns. Japan is well prepared to meet these new preferences. Perhaps a view of the peaceful Pacific Ocean from a private room in the Kameda Medical Center would be the preferable view rather than street beggars and cows defecating in the streets, or the chance to ride an elephant following a minor surgical procedure. However, recuperation in a luxury resort in India or shopping along Orchard Road in Singapore has advantages too.

Other than the expatriate population living and working in Japan, and the occasional tourist needing medical care, not many foreigners travel to Japan for healthcare needs or at least precise numbers are unknown. Tokyo, of course, has many modern hospitals, but it is unknown as to the volume of foreigners coming to Japan for care either too expensive or not available in their home country. A recent survey at Narita International airport was conducted on 4,000 foreign arrivals and only 4 persons indicated that the reason for visiting Japan was for a medical reason. It may be from a lack of awareness of the competence and quality of Japanese hospitals. It may also be because of the perception of Japan as very expensive country. Japanese hospitals do not advertise domestically, let alone internationally, although the World Health Organization gives Japan’s healthcare system high marks. It may be that the government, unlike that of South Korea, is not active in promoting its healthcare services to foreigners.

But another hurdle looms large - Japan’s shortage of doctors. According to the OECD’s Health Data 2009, Japan has fewer doctors per capita than most other major countries. In 2006, Japan had 2.1 doctors per 1,000 people—below the OECD average of 3. (The U.S. per capita figure is also low, at 2.4 doctors.) The scarcity is partly due to the government’s annual limits on the number of spots available at the nation’s medical schools. Many doctors complain about paperwork and clinical duties that have nothing to do with their field of specialty. To recruit more doctors, particularly outside the largest cities, Japan has already raised the limit and is planning to spend more public money on doctor education and recruitment programs. (How the government plans to reconcile already
soaring medical costs and the higher outlays to increase the number of working doctors is unclear.) (Bloomberg Business Week - http://blogs.businessweek.com/mt/mt-tb.cgi/15062.1413013620)

However, in December of 2010, the Justice Ministry stated it will allow foreigners who come to Japan for medical treatment to stay up to six months which is double the current maximum, to meet growing demand for quality services here. The change took effect in January of 2011. The Foreign Ministry has created a new visa category - the medical stay visa - valid for up six months. The period permitted to stay will be established on a case by case basis in 15 day increments based on the patient’s need. Prior to this, foreigners who wanted to receive medical services currently needed tourist visas, which were only valid for three months. “We need to drastically lower the barrier on country borders in medicine,” Chief Cabinet Secretary and Justice Minister Yoshito Sengoku was quoted as saying. According to the Justice Ministry, it will give “special activity” residential status to those seeking hospital care in Japan and their attendants starting in 2011 and apparently there are no excluded countries. Relatives of foreigners who live in Japan or hospital officials are able to apply for the appropriate residential status on behalf of non-Japanese who want to undergo medical treatment. Medical coordinators and travel agencies acting to assist patient are required to register with the Ministry of Justice (MOJ) or the Ministry of Health, Labor and Welfare (MHLW) in order to keep accurate data and report to the appropriate agency on how many patients were referred as a result of having obtained a medical visa. Secondly, it would seem reasonable for consulates abroad which issue medical visas to require some documentation of the medical need, such as a physician’s referral letter or an application from the patient with supporting medical documentation. At present, I have not seen the application format for the patient and what information is required. Thirdly, an acceptance document from a Japanese hospital would seem appropriate to ensure the patient will be actually be accepted for the required care by a hospital registered with the MOJ or MHLW. My hospital would require a transfer of funds (deposit) prior to acceptance in the amount estimated for the provision of the required treatment. If the ability to pay for care is not somehow addressed, this will be a serious issue for any hospital accepting a foreign patient. I believe there is a risk of misrepresentation if medical visas are issued and patients travel to Japan but do not seek medical care. Without a mechanism that verifies the need for medical care and an accepting medical facility, the medical visa may be misused in order to reside in Japan for up to six months. Hopefully, the MOJ is considering this. Tominaga Hospital in Osaka saw the first medical visa patient and the encounter was part of the NHK television evening news. Kameda Medical Center received our first patient with a medical visa in late February. The patient was from Russia and had a diagnosis of multiple sclerosis. The patient was seen as an outpatient, did not require hospitalization, and other than radiological and laboratory testing, did not require any treatment, and returned to Tokyo the same day. The patient was accompanied by an interpreter and two representatives from Emergency Assistance Japan who took notes and monitored the circumstances.

South Korea now has a 24 hour call center to facilitate communications. A foreigner in Seoul can pick up a phone in a taxi and have the destination interpreted for the driver or call the center from the doctor’s office to have their concerns interpreted accurately or understand the doctor’s explanation perfectly. Japan seems to suffer from ‘analysis paralysis’ in considering this. Several commercial companies have entered the market to provide 24/7 interpretation services, but the initial phone setup and monthly fees are still very high when compared to the currently low numbers of foreign patients who require this service in many hospitals including mine. Japan seems currently incapable of providing world-class medical care as a medical tourism destination because of the aforementioned obstacles and it is unlikely to be able to remove enough of them to compete in this very attractive and growing market in the foreseeable future. In private conversations with some within the Japan Council for Health Care Quality, there appears to be no interest in cooperating with the JCI to jointly accredit hospitals in Japan, a success factor in other countries benefitting from this cooperation. Many hospitals have been told that JCI is only applicable to Americans seeking care, and that if China and Russia are patient targets, JCI is not necessary. With JCI as a tool to improve patient safety and improve quality of care, I find this advice misguided. I think JCI accreditation is a significant accomplishment. Thirty percent of Japanese hospitals are locally accredited
so this accomplishment is neither rare nor unique. It is the same with ISO certification – quite common. Getting JCI accreditation is similar to a restaurant getting a Michelin Star. Recently, a few restaurants in Japan have received Michelin Stars. If restaurants can go the extra effort to be world class with high quality and superb services based on international standards, why don’t more hospitals have the same attitude? There are only about 300 hospitals worldwide that have been successfully accredited by JCI. The credential and accomplishment is rare and unique.

The restrictions on advertising are unlikely to be relaxed anytime soon, and even provisional or limited medical license reciprocity for physicians and nurses is very unlikely. Japan’s healthcare system is, therefore, predicted to remain a domestic endeavor providing an acceptable level of quality at a low cost to Japanese citizens and hospitals in Japan will continue to suffer from severe financial difficulties. Medical tourism would be an added revenue stream for hospitals here struggling with the bottom line, and some private hospitals on their own may attempt to access this market. Without some additional support from the regulatory environment, this will be a most difficult challenge even for the most proactive of Japanese hospitals. And perhaps one question regarding medical tourism has been overlooked. In what areas of medical treatment does Japan excel? In other words, what medical treatment in Japan boasts better outcomes or cutting edge medical care at reasonable costs? Here is what MedVoy, a major medical tourism facilitator/company had to say after visiting South Korea in December of 2010:

“Arriving at the pristine airport and being efficiently whisked through customs gives visitors the first inkling why medical tourism in South Korea has achieved so much in such a short period of time - receiving over 60,000 patients in 2009, 40 percent of which are from the US.

South Korea does not stray from its reputation as a technological powerhouse with “slip-less hospitals” that are paperless, chartless and filmless, using rather RFID chips, completely electronic medical records (EMR) and telemedicine. When hospitals commonly utilize the third generation of da Vinci Surgical System, the fourth generation of CyberKnife and where 64 slice CT scans are de rigueur, surgeons pride themselves on using a laparoscopic solution first. Dr. Kim of Seoul St. Mary’s Hospital published his initial findings about minimally invasive options for colorectal cancer seven years before this method received the nod from The New England Journal of Medicine. Additionally, highly specialized treatments for certain types of cancer have five year survival rates higher than those in the US.

Significant inroads have also been made for organ transplantation, especially for living donor organ transplantations where South Korea has established itself as a leader. This stems from its cultural roots since it is it is essential in Confucianism to preserve the body whole. Other areas of specialization include: spinal treatment, joint and rheumatism treatment, health screenings, dental care, infertility treatments and integrated traditional Korean medicine. “

The Japanese government as well as its leading hospitals must be proactively involved and evidence based in promoting this market opportunity or this opportunity will be missed. There are some, including myself, that feel that except for a few hospitals in Japan, that there is very little serious interest in medical tourism/travel and therefore the Japanese healthcare system will remain domestic, average and its leading hospitals will be unrecognized globally/internationally as world class organizations.

AUTHOR’S NOTE: As the finishing touches were being put on this article for a submission deadline of April 1st 2011, on March 11th Japan suffered the horrific indignity of an unimaginable magnitude 9.0 earthquake and a tsunami of unprecedented proportions that is estimated to eventually have a death toll exceeding 20,000 persons. It has displaced, some permanently, more than 385,000 persons and that number seems to grow daily. At the time of this writing, more than 20,000 persons are missing. Additionally, the Fukushima nuclear power plant sustained very heavy damage and radiation has been released into the atmosphere. Plutonium has been discovered in the soil at the plant. Green vegetables and milk from that area have high levels of radiation as well as the close proximity sea water. Foreign governments around the world are advising their citizens not to travel to Japan and are advising their citizens in Japan to leave. The U. S. military in Japan is evacuating on voluntary basis all dependent women and children and has distributed Iodine tablets as a radiation protection precaution. Tokyo embassies have distributed iodine tablets to their citizens. More than 2300 evacuation centers have been established
and many hospitals are overwhelmed with frail elderly and others from the affected areas. Kameda Medical Center has accepted 50 patients from Iwaki City in Fukushima Prefecture in need of renal dialysis and shortly after arranged the transfer of approximately 120 frail elderly from an Iwaki City nursing home (along with 45 of their staff) to Kamogawa city. It took fourteen busses to bring these patients to Kamogawa. Iwaki City is approximately 50 kilometers from the nuclear plant. Eight chronic ventilator patients were flown in to us on 23 March by a Japan Self Defense Forces helicopter in two trips. We normally do not handle these types of patients, but surely they would have died without us because of power outages, shortages of food and water as well as medicines in the affected areas. I feel surrounded by heroes. There have been many, many aftershocks, daily. As this article goes to press, there is much uncertainty, but suffice it to say that overall tourism to Japan will be greatly affected for some time to come, and what little activity there might have been regarding medical tourism has certainly has come to a halt. There is no doubt in my mind that Japan is resilient and with time will overcome this horrific calamity. It is therefore appropriate for Japan to look inward to priority healthcare for its citizens in these trying times and with ever decreasing scarce resources. My heart goes out to those who lost family members and friends as well as those who lost everything in this terrible disaster. I offer my sincere and deepest condolences to everyone touched by this apocalypse and I and the Kameda Medical Center are ready, willing and able to ease the pain and suffering of our fellow man. It is our mission, it is in our minds and hearts at all times, never ending, always.

Comments solicited to: johnwocher@kameda.jp
We thought we had defeated infectious diseases, but they are once again rampant. This can be attributed to factors such as the movement of people and food on a global scale, changes in the environment caused by runaway development, and the greater sophistication of health and medical services. Representative examples are Ebola hemorrhagic fever, Nipah virus, and Lassa fever, which are thought to be caused by the import of tropical diseases with overseas travel and the development of rainforests; Lyme disease, Tsutsugamushi disease, and psittacosis (parrot disease), transmitted from parrots and parakeets, all of which have become more common with the growing popularity of outdoor leisure activities; cryptosporidiosis, carried in contaminated drinking water; and legionnaires’ disease, caused by group infections originating in hot springs and buildings’ cooling towers. In addition, infectious diseases caused by MRSA (methicillin-resistant Staphylococcus aureus) and VRE (vancomycin-resistant enterococci), resulting from the indiscriminate use of antibacterial agents, have become a serious problem in recent years.

As such, these diseases previously not experienced by humans are called emerging infectious diseases. However, diseases that are once again occurring at higher rates are known as reemerging diseases. The Escherichia coli 0157, which raged throughout Japan in 1996, is also an emerging infectious disease.

The circumstances surrounding infectious diseases are increasingly serious, and it is very important that the public is provided with accurate information about this reality. It is essential that precautionary measures, such as providing education on hygiene and sanitation and inoculating with vaccines should be pursued.

That said, complex infectious diseases whose true nature cannot be discerned, as typified by bioterrorism and SARS (Severe Acute Respiratory Syndrome) have been on the rise recently.

The H1N1 strain of influenza that became a global pandemic in 2009 is one such example. Vaccines sufficient to inoculate 77 million people were secured, but since obtaining the vaccines took too much time, disposing of the extra inventory actually became a problem.

In late June 2010, the Ministry of Health, Labor and Welfare’s (MHLW) Office for Promotion of Pandemic Influenza Countermeasures announced that it would cancel its contract with Novartis for about 8,380,000 imported influenza vaccines, equivalent to about 33.5% of the amount it had initially intended to buy (25 million doses). The government would have to pay about 9.2 billion yen in penalty charges for breaking the contract, but this move would save about 1.56 billion yen in costs that would have been incurred if it had bought the amount initially planned. However, if this penalty charge is to be paid with taxpayers’ money anyway, couldn’t the vaccines have been given to the Japanese public free of charge?

Only able to procure enough domestically-manufactured vaccines for 27 million, Japan had to scramble to round up imported vaccines for 50 million people, making Japan’s vaccine policy the laughingstock of the world. How did we get to this point?
1. Japan’s vaccine market from a global perspective

The most current data (2007) indicates that the global vaccine market is worth about 1.8 trillion yen, of which Japan’s share amounts to only 4% (72.6 billion yen). Thirty-five foreign-capital companies (38% share) have also entered the pharmaceutical market, but only one company (1.9% share) has entered the vaccine market.

As a result, the so-called “vaccine gap” has only widened, putting the Japanese public at a disadvantage. For example, the vaccines for MMR and inactivated polio rotavirus that have been approved in the US and Europe have not been authorized in Japan under the Pharmaceutical Affairs Law. In addition, the combination vaccines recommended by the WHO, such as live vaccines (MMR, MMRV), inactivated DPT vaccine and hepatitis B vaccine cannot be used in Japan. In general, in developing vaccines, it takes five to eight years from the first trials until the vaccine is available for use. With development costs ranging from 55 billion to 110 billion yen, companies will not enter the vaccine market unless they can make a profit, since they are not philanthropic organizations, after all. Now, MHLW is urgently setting up a system that can quickly supply vaccines to all citizens in anticipation of the next outbreak of a new strain of disease.

In Japan, fertilized chicken eggs are used for virus cultures, but there are drawbacks to this method, since it is hard to obtain fertilized eggs and replicating the virus is time-consuming. However, pharmaceutical companies in Europe and the US have already begun applying the cell culture method, in which the virus is replicated in animal cells. Not only are cells easy to obtain, but this method can be quickly mobilized in the event of a sudden pandemic.

Accordingly, MHLW has begun to provide support for the practical application of the cell method. The Ministry is working to establish manufacturing facilities capable of making enough vaccines for all citizens within six months in the event of the outbreak of a novel strain of influenza, with a target date of 2013. Specifically, the government intends to allocate a budget of approximately 119 billion yen to domestic manufacturers to fund the facilities and clinical trials needed to create vaccines using the cell culture method (May 24, 2010 edition of the Nikkei). In response, Takeda Pharmaceutical Company will reportedly begin work on the production of a vaccine preventing influenza. The company intends to adopt cutting-edge manufacturing technology in affiliation with US pharmaceutical company Baxter International, aiming to begin shipments in 2014. In fiscal 2010, the company set up a new testing facility at its Hikari plan (in Hikari city in Yamaguchi prefecture) to conduct research and produce small volumes of the vaccine, and has introduced the most advanced manufacturing technology for cell culture from Baxter (June 19, 2010 edition of the Nikkei). In addition, in July 2010, in addition to Takeda Pharmaceutical, Chemo-Sero-Therapeutic Research Institute, Kitasato Institute and UMN Pharma joined the program for cell culture-based influenza development.

This is certainly a step forward coming from the domestic manufacture of vaccines, but is input from domestic manufactures really enough? Moreover, measures to counter new strains of influenza are undeniably important, but what about the other vaccines that have recently landed in Japan? Unfortunately, the public is almost completely ignorant of the dismal state of affairs in Japan, which is a developing country when it comes to vaccines.

In this paper, I will discuss the current state of and issues for Japan’s vaccine administration. This will be followed by an explication of the approach to Japan’s policy, taking examples from France and Germany, which have a social insurance program that is similar to Japan’s.

2. Differences in legal systems for vaccines and pharmaceutical products

As shown in Table 1, vaccines can be roughly divided into two types: routine preventative vaccines provided as a preventative inoculation and other voluntary vaccines. Routine preventative vaccines can be divided into Type I and Type II. The government covers the cost of Type I vaccines, in principle. The public payment amount is determined based on the fiscal status of the local government for Type II vaccines, but some must be paid for by the individual receiving the inoculation. In addition, voluntary vaccines not included as a routine vaccine are paid for entirely by the person receiving the vaccine, but local governments with the financial wherewithal provide subsidies. According to data released by MHLW in July 2010, 327 (18.8%) of local governments provided public subsidies for pneumococcal vaccines for adults, 204 (11.7%) for Hib vaccines and 114 (6.5%) for cervical...
cancer vaccines. This is certainly not a high percentage, since there were 1,727 local governments as of April 1, 2010.

The biggest difference between vaccines and pharmaceutical products is that the public healthcare system (pharmaceutical price basis) pays for the pharmaceutical products, while vaccines depend on the general funding sources of local governments.

Moreover, the timing of the inoculation is determined based on age, which is set by the preventative inoculation schedule in each region. If a vaccine is given at a time other than that dictated by the schedule, the individual must pay the cost, even if it is for a vaccine that is normally covered by public funds. In other words, Japan has a “vaccine disparity” resulting from location and income.

Public payment of vaccine costs was stipulated in the Preventive Vaccine Act, which went into effect in 1948. Prior to this law, mandatory smallpox vaccines were given using public funds under the Smallpox Prevention Regulation (1877). Fearing an outbreak of infectious diseases among the occupation forces after World War II, the GHQ administered mandatory group preventive vaccines, and in 1948 the Preventive Vaccine Act was established at the instruction of GHQ. The key point here was that preventive health was under the jurisdiction of local governments. This was not changed subsequently, despite the 21 revisions made to the Preventive Vaccine Act through the present.

A major change after the 1948 law was established was the stipulation made in 1976 that the government would redress damage to health caused by preventive vaccines. With the decline in the number of patients suffering from infectious diseases, damage to one’s health as a result of preventive vaccines became a bigger social problem, resulting in the establishment of the Program to Redress Health Damage due to Preventive Vaccines. Moreover, the requirement to receive vaccinations was relaxed and penalties were abolished. At the same time, the responsibility of the medical official was not called into question, since the mayor was party to the preventive vaccine program.

In the 1994 revision 18 years later, the law no longer mandated vaccinations, but rather stipulated that people should make the effort to be vaccinated, thus shifting from group mandatory vaccines to individual recommended vaccines. However, there are no legal provisions for voluntary vaccines, which are the responsibility of the person receiving the injection or their guardian. This is an urgent issue that must be addressed.

### Table 1. Types of vaccines in Japan

<table>
<thead>
<tr>
<th>Type</th>
<th>Basis for administration and funding</th>
<th>Responsibility for cost</th>
<th>Redress for harm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccine</td>
<td>Type I routine inoculation DTP, MR (measles and rubella), BCG, polio, Japanese encephalitis</td>
<td>Local governments pay full costs in principle</td>
<td>Compensated through Program to Redress Health Damage due to Preventive Vaccines (high compensation) (covered by national government and local government)</td>
</tr>
<tr>
<td></td>
<td>Type II routine inoculation Influenza for the elderly</td>
<td>Local government funds and self-pay (average self-pay 1170 yen)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Voluntary inoculations Type A hepatitis, Type B hepatitis, chickenpox, pneumococcus (elderly), Hib, mumps, cervical cancer, pneumococcus (children), influenza for people other than the elderly</td>
<td>Entirely self-pay, in principle</td>
<td>Compensated by Program to Redress Harm from Side Effects of Pharmaceutical Products (funded by contributions from pharmaceutical manufacturers)</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>Health Insurance Law National Health Insurance Law</td>
<td>National health insurance program (70% covered by insurance, 30% paid by individual)</td>
<td></td>
</tr>
<tr>
<td>products</td>
<td></td>
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</tbody>
</table>

Source: Pharmaceutical Manufacturers Association
3. Global vaccines brought to Japan

Figure 2 shows vaccines introduced to the Japanese market or vaccines that are planned for introduction. The Hib vaccine was released in 2008, and the launch of the HPV vaccine was completed at the end of December 2009. In addition, a pneumococcal vaccine for children was launched in February 2010. A rotary virus vaccine is currently in development, and the introduction of combination vaccines is being debated. The problem is that, even if these new vaccines are approved and released, the cost is borne by the person receiving the vaccine, in principle, so the inoculation rate is extremely low. For example, the number of chickenpox patients has been almost unchanged over the past 10 years, with about 200,000 reported cases every year, but the vaccine rate for children is only about 20-30% nationwide. Moreover, the scale of mumps outbreaks increased between late 1993 and 1994 and between 1996 and 1998. Since 2000, it has repeated a four-year cycle of increases and decreases, with a major outbreak in 2000-01 resulting in an estimated number of patients exceeding 2 million a year. Despite this, the vaccine rate among children is only 30-40% nationwide.

The incidence rate for infectious diseases such as chickenpox and mumps is kept low in Europe and the US with the wide use of vaccines, but it is estimated that there are 1 million patients a year in Japan.

Moreover, it is thought that giving the elderly the pneumococcal vaccine in conjunction with the nodal influenza vaccine would be more effective in preventing more severe cases. However, the inoculation rate for adults age 65 and older is only about 5% in Japan. In the US, over 65% of the elderly are vaccinated, and Japan’s rate is also extremely low in an international comparison.

4. Current status in France and Germany

In contrast, in France and Germany, which have social health insurance programs similar to Japan’s, preventive vaccines are covered under their national health insurance programs, surprisingly.

According to Paul Talcott, a research fellow at Freie Universität Berlin, preventive vaccines have been covered by the employee’s health insurance since the employee health insurance system was modernized in 1974. Nevertheless, those not covered by employee health insurance must rely on the uneven services provided by local governments, which resulted in a low preventive vaccine rate and major outbreaks of diseases that can be prevented with vaccines. Accordingly, in 1999 a new national health insurance program was applied for the first time for those not previously included in the system, allowing this group to receive preventive vaccines free of charge. As a result, the coverage rate for preventive vaccines rose dramatically, and the incidence rate of diseases preventable by vaccines has declined.

At the same time, in Germany the majority of public sickness funds pay for preventive vaccines. However, the decision over whether to provide the funding was left up to the individual sickness funds, and this resulted in differences among sickness funds as to when the vaccines were made eligible and which were covered. Accordingly, in the 2007 health care reforms, the system was changed to one in which the central government made the decisions, and this has eliminated the discrepancies.

Nevertheless, how did France and Germany, which have the same benefit in-kind system that Japan has, decide to cover preventive vaccines in their insurance programs? National insurance may cover medical costs for disabilities and illnesses, but wouldn’t preventive medicine be ineligible for coverage?

The reason is simple. health care economic analysis taking into account cost-benefit performance demonstrates that covering vaccines in national health insurance programs is justified. Calculations show that, by reducing VPDs (vaccine preventable diseases), as well as improving public sanitation, total health care costs can be reduced. Prevention is truly the best medicine, as the saying goes, and indeed this kind of health care economic analysis is being actively carried out in Japan as well. For example, according to a mathematical model by Ryo Konno, Director of the Department of Obstetrics and Gynecology at Jichi Medical University’s Saitama Medical Center, giving the cervical cancer vaccine to all twelve year-old girls would reduce the number of incidences and the mortality rate by about 73%. Moreover, when adding in the indirect costs such as future treatment costs, cancer re-examination costs and loss of labor, society overall would
save about 19 billion yen.

In France and Germany, preventive vaccine policy was shifted from the purview of local governments to the national government, which raised the vaccine inoculation rate and reduced the number of VPDs. Taking measles as an example, the vaccination rate rose as a result of an increase in the costs borne by national health insurance programs, and the number of reported cases dropped dramatically. Direct medical costs are estimated to have been cut by 145 million dollars (about 13 billion yen) annually in France and 90 million dollars (about 8.1 billion yen) in Germany. The health insurance programs in the two countries have many points of similarity with Japan, so this reform would be a useful reference for Japan.

5. Possibility of insurance coverage in Japan

Indeed, there is a chance that vaccines would be covered under Japan’s health insurance program as well. When the vaccine recipient can be determined, such as cases in which pneumococcal vaccines for the elderly are used to prevent infection after a splenectomy and Type B hepatitis vaccines are used to prevent transovarial transmission from mother to child, the vaccine cost is covered under the national health insurance program.

However, this is an exception. Article 1 of the National Health Insurance Law states: “The purpose of this law shall be to grant benefits to workers in the case of an illness, injury or death which occurred outside of work, or the birth of a child; or a dependent’s illness, injury, death or childbirth. Through this, the law aims to contribute to the stability of people’s lives as well as the improvement of their welfare.” Article 52, which describes the regulations for payments in greater detail, does not mention payments for preventive care.

So would the law have to be revised to include coverage of preventive care such as vaccines in the national health insurance program, or can it just be interpreted differently?

The answer depends on the government’s decision, but the view that preventive care is not eligible for coverage under the national health insurance scheme is surely both anachronistic and egregious. It is true that including preventive medicine in the national health insurance program would also cover medical treatments without a causal association, and some believe that the limits governing eligibility would be wiped out. However, as with the problem of patients getting medical treatment both through the national insurance program and at their own expense, the problem would be resolved by laying out certain standards and objective data comparing the risks and benefits.

So is there a way that preventive health care could be eligible for health insurance coverage without having to change the National Health Insurance Law? One possibility might be to provide insurance coverage only if the vaccine is given at the recommended age. Indeed, the chickenpox vaccine and Hib vaccine are recommended for 1-2 year-olds, and the cervical cancer vaccine is recommended for 11-14 year-olds. Overall costs could be kept down by

Table 2. Vaccines recently adopted in Japan (or planned for adoption)

<table>
<thead>
<tr>
<th>Vaccines recently adopted in Japan (or planned for adoption)</th>
<th>Source: Prepared by author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza type B vaccine (Hib vaccine)</td>
<td>Launched in December 2008</td>
</tr>
<tr>
<td>Japanese encephalitis vaccine (cell culture)</td>
<td>Launched in June 2008</td>
</tr>
<tr>
<td>Cervical cancer vaccine</td>
<td>Launched in December 2009</td>
</tr>
<tr>
<td>Pneumococcal conjugate vaccine for children (PCV7)</td>
<td>Launched in February 2010</td>
</tr>
<tr>
<td>H1N1 influenza vaccine</td>
<td>Japan-made vaccine: Approved in September 2009</td>
</tr>
<tr>
<td>Foreign-made vaccine: Used within framework of special measures law</td>
<td></td>
</tr>
<tr>
<td>Rotavirus vaccine</td>
<td>In clinical development</td>
</tr>
<tr>
<td>DTP-IPV vaccine</td>
<td>In clinical development</td>
</tr>
<tr>
<td>Other combination vaccines</td>
<td>Under discussion by government committee</td>
</tr>
</tbody>
</table>
limiting insurance coverage to specific ages.

In addition, the legally mandated benefits under Japan’s national medical system include both medical care benefits and cash benefits. As such, changing the system so that, as with the one-time childbirth benefit and sick pay, a refund is provided in the form of a cash benefit to cover the cost of the vaccine, rather than providing a benefit in-kind that covers the drug price, would likely lower the hurdles facing vaccine inoculation. It is also worth considering appropriating part of the 13,000 yen monthly child benefit paid in cash for this purpose.

In the past, there have been debates over whether health checks should be covered by the national health insurance scheme, as preventive health care. A review of the current medical fee schedule shows that preventive benefits are provided in a few cases, such as management of lifestyle-related diseases, which is restricted to hyperlipemia, diabetes, and high blood pressure. Given this, wouldn’t it be worth considering expanding coverage in a restricted way for preventive vaccines?

6. Establishment of desired Japanese ACIP

In any case, applying health insurance coverage to preventive medicine requires making changes in the many people involved in its administration—particularly to the compartmentalized, turf-minded organization which is such a deeply engrained part of MHLW.

Specifically, epidemiology studies on infectious diseases are carried out by the National Institute of Infectious Diseases, vaccines are approved and licensed by MHLW’s Pharmaceutical and Food Safety Bureau’s Evaluation and Licensing Division, supply/demand coordination and stockpiling are administered by the Pharmaceutical and Food Safety Bureau’s Blood and Blood Products Division, reviews and regular surveys after the launch of the vaccine are conducted by the independent administrative entity, Pharmaceuticals and Medical Devices Agency, vaccines are officially screened by the National Institute of Infectious Diseases, vaccine inoculation methods are managed by MHLW’s Health Service Bureau’s Tuberculosis and Infectious Diseases Control Division (however, methods for voluntary vaccines are stipulated by the manufacturer and researchers). This means that the process is managed in a piecemeal manner. One possibility would be to reorganize the current vertical organization and set up a forum in which the entire process for infectious disease and vaccine policy, from development to deployment (education, cost burdens) and evaluation, can be discussed in a comprehensive manner.

The US has an advisory organization for vaccines called ACIP (Advisory Committee on Immunization Practices) which issues recommendations on the timing of vaccine inoculation, period between vaccine doses, amount of doses and cost burdens. With the basic objective of raising the vaccination rate for all vaccine-preventable diseases and eradicating such diseases, the ACIP has set up working groups for every disease to debate the implications of a given vaccine for infectious disease measures and decide whether that vaccine will be recommended. For example, in the US, where immunization with 16 types of vaccines is recommended between the age of 0 and 18, multiple vaccines are given at the same time when infants have medical examinations. Babies between the age of 12 months and 15 months are given a total of eight vaccines, encompassing 12 types of vaccines, on the same day. In order to alleviate the burden on the patient somewhat, these multiple types of vaccines are combined in combination vaccines (such as the combination of DPT, hepatitis B, and inactivated polio vaccines, and the combination hepatitis B and Hib vaccine). By enabling the patient to receive two to three types of vaccines in one shot, the patient’s burden, as well as the doctor’s, is alleviated. According to Aya Saito of the Graduate school of Medicine and Faculty of Medicine, the University of Tokyo, “administering injections at the same time (using the intramuscular route) raises the vaccination rate and also reduces the time involved for both the patient and the guardian, and also helps to reduce medical costs.”

7. Conclusion

In this paper, I have sought to explain the current situation for vaccines in Japan and the issues, as well as the approach.

Our biggest concern should be that, even as new vaccines are developed and authorized for use within the next five years, they are classified as voluntary vaccines and the compensation program for their side effects (side reaction and adverse events) remains weak.

Luckily, the current administration is very proactive in this respect. In particular, Adachi Shinya, the member of the House of Councilors (ex-administrative official in
MHLW) who essentially compiled the health manifesto, has worked for many years on the issues of no-fault compensation and exemption of liability. The bottleneck here has been voluntary vaccines for diseases such as chickenpox, hepatitis A, hepatitis B, pneumoccus in the elderly and the mumps. Compensation for injury is paid out of the Compensation Program for Victims of Adverse Reactions to Medicine, but there is no antecedent law for operations and costs.

The Japan Association of City Mayors set up a Restitution and Compensation Insurance Program for Injury Due to Preventive Vaccines, but not all local governments are members of this program. Moreover, the compensation amount is low compared to that of routine preventive vaccines.

A program for compensation of side effects is inseparable from the issue of a public expenditure system intended to increase the use of vaccines. If new vaccines are added to the routine vaccines stipulated by the Preventive Vaccine Law, the government’s edification campaigns and public expenditures are inextricably linked to a side effect compensation program. It would probably be impossible to form consensus among the public, medical professionals, and the government unless a scheme that includes a side effect compensation program is developed when incorporating vaccines in the national health insurance program.

Even in this case, a rigorous check would have to be performed to determine whether side effects were indeed present. According to Tomoyoshi Sonobe, chairman of the “Know VPDs, Protect Your Child” Committee, responses to vaccines can only be deemed to be side effects if the following three conditions are met:

(1) An epidemiological study demonstrates that an adverse event occurred more often among the vaccine recipients than non-vaccine recipients, with a significant difference.

(2) Certain trends are recognized in symptoms after the inoculation and subsequent period, laboratory findings, and pathological findings in the event of death. Moreover, the cause can be medically demonstrated.

(3) Attenuated viral and bacterial vaccines are found in places where causal organisms are typically not found.

Along with these concerns and plans for measures against adverse events, there are move forward in recent days. Though the government repeats unchanged reluctance on the idea of placing vaccines under insurance coverage, it has agreed to respond to the request of the Preventive Vaccine division of the Infectious Disease Section in MHLW’s Health Sciences Council (chaired by Tatsuo Kato, director of the National Center for Child Health and Development) for major revision of the Preventive Vaccines Act. The statement is backed by the Diet. The updated version of the revision proposal (which had passed the House of Councilors last year) has just received unanimous approval from the House of Representatives. Japan tends to take time till it decides, but steps on the accelerator once the decision is made. In that sense, we may expect new developments surrounding the vaccines to unfold in the following days.

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Introduction

Generally, in comparison to people from other countries, most Japanese people are not positive minded about their own existence. Poor self-affirmation and expressions of low self-value are characteristic traits of Japanese people. Trends towards the nuclear family and long-distance internet community have contributed to a weakening of interpersonal relationships. Moreover, childhood abuse and neglect have also found to have an impact on self-esteem. In the face of adverse physical or psychosocial situation, an individual is forced to adapt in order to survive. Grassi-Oliveira R reviews the psychobiological consequences related to childhood abuse and neglect.

Praise is known as one of the ways to improve interpersonal communication. For example, it is well known that children grow through praise. Self-esteem is established by the individual accepting the points they are being praised on, which leads to increased feelings of self-affirmation. Hearty laughter is elicited from self-efficacy.

It has recently been demonstrated that laughter and humor enhance immunity, and have a good impact on the mental state. The positive psychology movement has created a great deal of interest in examining the potential value of experiencing positive emotions (e.g., humor, laughter, and happiness) during bereavement. Most bereaved spouses rated humour and happiness as being very important in their daily lives, and that they were experiencing these emotions at higher levels than they had expected. Experiencing humour, laughter, and happiness was strongly associated with favourable bereavement adjustments (lower grief and depression), regardless of the extent to which the bereaved person valued having these positive emotions.

In order to experience a comfortable, fun laugh, humans need to be in a comfortable state, not an uncomfortable state. The human brain contains a component known as the “hippocampus”, which has a region known as the “amygdala”. The amygdala acts to manage discomfort and fear. If a person experiences abuse, fear or anxiety, the amygdala picks up on this information and prevents the person from laughing. In many cases, when a Japanese person is abused or hit, their typical reaction is not to cry, and instead most abused persons will actually grin. This is because the fear center is not functioning properly. Because the person fears they will be hit again if they cry, the abused person will try to avoid crying by smiling falsely.

When stress is overwhelming, brain cells in the hippocampus reduce in size. When the brain recognizes excessive discomfort, the sympathetic nervous system is stimulated, and adrenaline and blood pressure increase causing the amygdala to generate panic.

Hearty laughter is needed in order to avoid the amygdala generating panic. The feeling of safety is a basic need for hearty laughter. For a person to feel safe, they need to nestle and snuggle. The praise workshop mentioned above was considered to be one method of increasing self-fulfillment. The praise workshop was started to enable natural, hearty laughter.

As Albert Bandura (1977) said, “self-efficacy means competence and self-confidence”. Self-efficacy is increased by self-esteem. Once overall confidence is established in a person, their self-esteem increases and serves to promote general self-efficacy.

It can be predicted that people with high self-efficacy have higher motivation. Self-affirmation can be enhanced
and sustained through the workshop. There are three stages in self-affirmation. In the introductory (first) stage, many people experience fear in a deep cognitive level about their self-affirmation.

In the second stage, a certain positive message gives the person a deep affirmation. Their self-esteem grows as their anxiety fades. In the third stage, self-acceptance of a deep self-affirmation can occur.

The praise workshop was held over the following three sessions. 1. Self-praise to extend personal strengths. 2. Praising others. 3. Affirming merits raised by other people, and accepting them. By telling only the truth, rudimentary self-affirmations were strengthened in the second phase of self-affirmation. Through acceptance of other people’s words, people admired those perceived as knowing the individuals better than they knew themselves.

The purpose of this paper is to show that self-esteem and self-efficacy can be enhanced by praise. In an attempt to prevent bullying, abuse and suicide in Aomori Prefecture, original workshops were held under the title of “Smile-Sun Method Project” from 2008 onwards. Feedback analysis from the workshops in Aomori revealed increased self-esteem through praise.

The current research project examined strategies to change student motivation from extrinsically rewarding behaviors to self-efficacy. The research was conducted by one lecturer in two different universities located in Tokyo and Nara prefectures respectively, and in one research institute in Tokyo. The founder of this laughter academy conducted the research project with 161 medical students in the classroom, and 41 researchers in a lecture theater.

### Participants

81 fourth-grade medical students (58 male, 23 female) from N Medical School in Tokyo, 60 fourth-grade medical students (48 male, 12 female) from M Medical School in Nara prefecture, and 41 researchers (26 male, 15 female) at O-Electric Institute in Tokyo were the participants in this research. Participants from O-Electric Institute were all graduates.

### Method

Three subsequent 60-minute lectures were organized on the importance and effect of laughter, after which 30-minute workshops were organized. During the workshops, participants thought of good points for themselves, after which participants formed pairs and praised each other. The person being praised had to accept the verbal praise.

In previous studies, heightened self-esteem created a hearty laughter. The effectiveness of self-esteem was measured using the Rosenberg Scale (RS).

In addition, a new scale for measuring self-efficacy called the Takayanagi Scale (TS) was used to measure the construction of positive relationships with others, the effects of warm laughter, and the efforts made to create better relationships with others. Responses from these ten questionnaire questions were obtained from the Aomori workshops, which have been held since 2008.

The first 5 items assess the participant’s own self esteem, as follows: I feel that I am a loser*, there is nothing for me to feel confident about *, I believe I am no good*, I feel like a useless person*, I think I could respect myself more*.

1. Positive relationship with others  

1) In order to see the position they are naturally in, “I can

<table>
<thead>
<tr>
<th>Table 1. Takayanagi Scale t-test Sampled for study</th>
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<tbody>
<tr>
<td>Sampled difference</td>
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<tr>
<td>---------------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>M pair 1 total (B) total (A)</td>
</tr>
<tr>
<td>N pair 1 total (B) total (A)</td>
</tr>
<tr>
<td>O pair 1 total (B) total (A)</td>
</tr>
</tbody>
</table>
make a conversation with anyone”
2) In order to see they are making active effort “I can make new discoveries in daily life”
3) To understand the results of positive relationships, “I am consulted by others”
4) Reversal question, “I get angry about others”

2. Efforts to smile warmly
1) To confirm the warm smile, “I have chance to look in the mirror”
2) To experience hearty laughter “I make the effort to discover my emotions”
3) To understand active efforts, “I try to increase the chances of laughter”
4) To understand the results of laughter, “How many times do you laugh in a day?”

3. Efficacy of improved relationships with other people
1) To understand their own efforts, “Do you consider the positive points of strangers?”
2) To find their own reactions to the results of their efforts, “Do you feel that other people like you?”
3) As a response from someone “You have a nice smile.”

Each question is answered on a scale of four answers (1. Strongly agree, 2. Agree, 3. Disagree, 4. Strongly disagree). Total scores were analyzed based on the central limit theorem for the t-test, and each item was individually analyzed in the t-test.

Results
1. Self-esteem according to the Rosenberg Scale:
Differences between the total scores before and after the each workshop were significant (p <0.05). Results of the Wilcoxon test showed that differences of the total score both before and after the each workshop were significant (p <0.05). By analyzing individual items, two items (“I feel like a useless person”, and “I think I could respect myself more”) were not significant in any of the three workshops.

2. Self-efficacy according to TS
Differences between the total score before and after each workshop were significant in t-test (p <0.05). The Wilcoxon test showed that differences between the total scores before and after each workshop were significant (p <0.05).

By analyzing the individual items, two items (“How many times do you laugh in a day”, and “I have chance to look in the mirror”) were not significant in any of the three workshops.

The participants at N medical school revealed two more statistically insignificant items (“I am consulted by others” and “I get angry about others”). These negative results showed that the contents or timing of the questionnaire were not appropriate. Furthermore, ages and backgrounds of subjects (medical students and general adults) were

Table 2. Non-parametric (Wilcoxon test)

<table>
<thead>
<tr>
<th>School</th>
<th>Sampled difference</th>
<th>t value</th>
<th>Degree of freedom</th>
<th>Significance probability (both sides)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average</td>
<td>SD</td>
<td>Standard error of the mean</td>
<td>Average</td>
</tr>
<tr>
<td>N medical school</td>
<td>-1.239</td>
<td>3.035</td>
<td>.360</td>
<td>-1.958</td>
</tr>
<tr>
<td>M medical school</td>
<td>-3.060</td>
<td>4.963</td>
<td>.702</td>
<td>-4.470</td>
</tr>
<tr>
<td>O institute</td>
<td>-4.265</td>
<td>4.025</td>
<td>.690</td>
<td>-5.669</td>
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</table>

Table 3. Rosenberg Scale t-test
different, and the questionnaires after workshops should have been administered a few days after the workshops instead of directly after to assess the results better.

From the results obtained above, it was concluded that the praise workshops held after the lectures were able to increase self-esteem and self-efficacy.

**Discussion**

Self-efficacy increased in both the group that praised, and the group that were being praised in the workshops. Those who had their appeal points pointed out by others were able to rediscover themselves. When being praised, the person saw his or her own inner nature, an experience that enhances increased self-efficacy.

In comments after the workshop, the participants found that their personalities seen by other people were not the same as their own understanding. When this view was beyond the participant’s own perception, they became confident in themselves. The unexpected feeling of satisfaction from being praised provided participants with confidence and a sense of achievement. A sense of achievement is the best way to improve self-efficacy.

Being praised promotes self-esteem, and laughter follows spontaneously. Natural laughter is uplifting, and activates the brain’s reward system. It is said that while Western cultures have a culture of guilt, and Japan has a culture of shame. Shy people have an enhanced sensitivity to rewards compared to punishment. According to this research, Japanese are able to achieve higher self-efficacy through this type of praise workshop.

When simply praising ourselves, we can find good points within ourselves to convince ourselves about. This act of self-praise promotes self-efficacy. However, when we praise other people, the reaction of the other person (smile) also projects onto the praising person. This is a good way to increase the sense of accomplishment. When a person is satisfied with responses from others, they can then accept what their partners say. Potential achievement and repeated words of persuasion promote self-efficacy and emotional and physiological wellness.

**Conclusions:**

The effects of praise workshops were assessed. A total of 141 medical students and 41 employees participated in a workshop and results were assessed using the Rosenberg’s scale for self-esteem, and the newly created TS for self-efficacy. Results showed statistically significant increases in self-esteem and self-efficacy after the workshop. These scales were found to be useful for assessing the results of the workshops. However, two items in each of the RS and TS questionnaires raised the possibility that inappropriate questions were used. Future research will be conducted on verifying the effectiveness of these studies.
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Preventive Care Strategies Based on Disease Prevalence among Japanese Urban Elderly: Focus on Disease Prevention in Mildly Frail Elders with Long-Term Care Insurance

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Abstract
Aim: To investigate the relationship between prevalent diseases and medical conditions in frail elderly in Japan who require lighter levels of care in order to improve preventive care strategies.
Methods: Data from Japanese long-term care insurance (LTCI) documentation was used to investigate the relationship between the prevalence of diseases and medical conditions among 553 frail elderly people (193 men and 360 women) over 65 years old in a central area of Osaka prefecture. Logistic regression analysis was used to determine the associations among related diseases and main medical conditions in the lightest levels of care required.
Results: With age, the prevalence of hypertension, heart disease, dementia, and fractures increased, whereas neoplasms, cerebrovascular disease, and diabetes mellitus decreased. Neoplasms and circulatory disease were significantly more common in men, and musculoskeletal disease and injury were more common in women among main medical conditions requiring light care. Diseases significantly associated with the lightest level of care were hyperlipidemia (odds ratio 3.0), osteoporosis without fracture (1.9), and gonarthrosis (1.7) in women.
Conclusions: Efforts to control musculoskeletal diseases and lifestyle diseases are essential preventive care strategies, especially in the preliminary stages of care under LTCI. Previously proven measures such as the strengthening of muscles through moderate exercise, cancer screening, intensive blood pressure control, continuous nutritional management, and thorough diabetes treatment beginning in middle age can help to prevent fractures, cancer, cerebrovascular disease, and dementia, all of which severely erode quality of life.
Keywords: frail elderly, long-term care insurance (LTCI), main medical condition, prevalence, preventive care

Introduction
As aging and urbanization has progressed globally, the number of urban frail elderly has increased. In 2005, the Japanese government revised its long-term care insurance (LTCI) system to promote the maintenance and reinforcement of frail elders’ activities of daily living (ADL), and to reduce the incidence of bedridden elders and the need for long-term care. Survey items have been changed for several times. From April 2003 to March 2009, care-level certification was at first estimated via care needs measured by questionnaires related to current physical and mental assessment (67 items) and medical procedures (12 items). Then conducted a computer analysis of the results using seven dimensions of the applicant status and estimate care need times through a tree-based classification algorithm. A committee of medical, health,

and social welfare professionals reviewed this analysis along with summaries and comments written by family physicians. Based on this, care level can be said to reflect ADL impairment level.

Analysis of stored ADL data revealed a tendency for ADL decline to appear first in lower limb function, namely in rising, getting up, and walking in the early stages of care under LTCI. Decreased ADL function reflects causative disease and age. However, excluding scores for physical and cognitive independence in daily life and the four items used to calculate Cognitive Performance Scale (CPS) rating, disease information from family doctors has not been captured in the LTCI database. Because of the variability and complexity of the relationships between disease and required care, current Japanese preventive policy still relies on the ADL index without fully considering the relationship between illness and aging. Establishing an effective healthcare policy with a particular focus on disease prevention requires a health index that indicates the prevalence of specific diseases and the evaluation of their effects.

Much knowledge exists about such diseases. Hypertension, for instance, causes cardio- and cerebrovascular disease, and kidney disease. Even high-to-normal blood pressure has been shown to be a risk factor for stroke and myocardial infarction for men in their 50s and 60s in Osaka. Not only is diabetes a risk factor for cerebrovascular disease, cardiovascular disease, and dementia; it also worsens vascular disease and affects prognosis. It is suspected that 14% of Japanese people in their 40s are suffering from diabetes mellitus, and according to recent data, 40% of diabetic outpatients are more than 65 years old. Two-thirds of these developed diabetes at a younger age and ended up with complicated diabetic micro- and macroangiopathy. Hypertension with diabetes increases the risk of cerebrovascular dementia.

In the Framingham Heart Study, the total life expectancy of a 50-year-old normatensive was 5.1 and 4.9 years longer than that of a hypertensive man or woman, respectively. Compared with hypertensive patients, normatensive individuals began suffering from cardio- and cerebrovascular disease 7.2 years later and spent, respectively, 2.1 and 2.3 fewer years with these diseases than hypertensive men and women. A study has also

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shown that cerebrovascular disease prevention contributes to dementia prevention.\textsuperscript{21} According to the results of a questionnaire in Osaka, gastric cancer screening rates for individuals over 65 years of age were 42\% in men and 29\% in women,\textsuperscript{22} while the five-year survival rate for localized gastric cancer was 90.6\%.\textsuperscript{23}

Despite all this, however, except for one pioneering study,\textsuperscript{24} little medical research is available on LTCI applicants in urban areas. Investigating the relationship between disease and required care level in the lighter frail status is an urgent task from the view of preventive care. Therefore, this study analyzed disease information found in LTCI documents, with the aim of devising more effective care strategies.

\section*{Method}

This study took place at the end of April 2006 in the central area of Osaka prefecture, which is the third largest metropolitan district in Japan. The study zone spanned 15 km\textsuperscript{2} and had a total population of 200,678 (95,866 men and 104,812 women). Of these, 17,104 (17.8\%) men and 23,290 (22.2\%) women were over 65 years of age.\textsuperscript{25} The estimated proportion of elderly over 65 years of age certified as frail by LTCI is approximately 18.7\%. The author chose 605 random samples from among LTCI applications approved between October 2005 and March 2006. Samples included visit descriptions and family doctor summaries and comments. The sample size comprised 9\% of all LTCI applicants in the study zone in the fiscal year 2005. No personal identifiable information other than sex was included in these documents. During the aggregation of statistics, the author used variable treatment in order to make data doubly anonymous and observed the privacy regulations of the district. Of the 605 samples, 21 did not meet the inclusion criteria and 31 described individuals under the age of 65. For each of the remaining 553 samples, the author examined the first five diagnoses from family doctor summaries and comments. The doctors listed causative diseases requiring care and dysfunction-related diseases.\textsuperscript{26} A $P$-value of <0.05 was considered significant. JMP 8.0.1 for Windows was used for statistical analysis. Each diagnosis was categorized in accordance with the \textit{International Classification of Diseases and Related Health Problems}, 10th Revision (ICD-10)\textsuperscript{27} and the prevalence of each was calculated.

One goal of the study was to clarify the relationship between disease and the light level of care (which includes “support required,” care level 1, and care level 2) and extract main medical conditions by sex and care level. The World Health Organization (WHO) defines “main condition” as “a condition diagnosed at the end of the episode of health care, primarily responsible for the patient’s need for treatment or investigation.”\textsuperscript{28} Logistic regression analysis was used to determine the related diseases and main medical conditions associated with the lightest care grade, which is most related to preventive care, and the support required. This study employed the stepwise forward selection method as the optimal model based on Akaike’s Information Criterion (AIC). AIC is a criterion for selecting the optimum model from a set of models, where the model with the lowest AIC is selected as the best.\textsuperscript{29}

\section*{Results}

Table 1 presents the basic care-level attributes of the subjects. Overall, to a significant extent, women required lighter care than men did, with 41\% of women requiring the lightest level of care. The prevalence of diseases in the study sample according to ICD-10 categories appears in the appendix. The average number of diseases per person was 3.2 in men and 3.6 in women (value $t = 3.57$; $P = 0.004$). The two most prevalent categories of disease were

\begin{itemize}
  \item \textsuperscript{22} Osaka City Health and Welfare Bureau. \textit{Report on health and lifestyle of the residents of Osaka City 2009} (In Japanese).
  \item \textsuperscript{24} Matsuda, S., Tsurugi, Y., Yamamoto, M. The study on integrated community based program of health promotion. 2005 Grant-in-Aid for Scientific Research Report. Research project number 15590566.
  \item \textsuperscript{25} Ministry of Internal Affairs and Communications. \textit{Geographical survey population resident registry. Japan Geographic Data Center 2006} (In Japanese).
  \item \textsuperscript{26} Writing manual of LTCI medical summaries and comments for family’s doctors. Japanese Ministry of Health, labour and Welfare, July 26, 1999 (In Japanese).
  \item \textsuperscript{28} Ibid
\end{itemize}
diseases of the circulatory system (hereafter circulatory disease) (65%) and diseases of the musculoskeletal system and connective tissue (hereafter musculoskeletal disease) (54%). The total percentage of men and women with dementia (22% and 20%, respectively) included patients with cerebrovascular dementia, unspecified dementia, and Alzheimer-type dementia. The prevalence of gonarthrosis by sex was 11.4% in men and 31.4% in women.

Figure 1 shows the prevalence of common diseases in the study sample by sex and age group. With age,

disease, and diabetes mellitus decreased.

Table 2 and Figure 2 show the main medical conditions of those requiring light care by sex and care level. In general, neoplasms and circulatory diseases were significantly more common in men ($P = 0.0002$, $P = 0.004$ respectively). Musculoskeletal diseases and injury, poisoning, and certain other consequences of external causes were significantly more common in women ($P < 0.0001$, $P = 0.01$, respectively). Mental and behavioral disorders increased significantly as the level of care became severe in both men and women ($P = 0.036$, $P < 0.0001$ respectively). In women, disorders of the nervous system and dementia increased significantly (each $P < 0.0001$) and musculoskeletal diseases decreased by care level ($P = 0.01$).

[Table 1. Basic care-level attributes of the subjects]

<table>
<thead>
<tr>
<th>Persons</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at survey (SD)</td>
<td>77.8 (6.7)</td>
<td>78.1 (7.1)</td>
<td>78.0 (7.0)</td>
<td>0.55</td>
</tr>
<tr>
<td>Support required</td>
<td>77.0 (6.2)</td>
<td>77.7 (6.5)</td>
<td>77.5 (6.4)</td>
<td>0.3</td>
</tr>
<tr>
<td>Severe level [care levels 3–5]</td>
<td>79.7 (7.7)</td>
<td>79.7 (8.9)</td>
<td>79.7 (8.4)</td>
<td>0.97</td>
</tr>
<tr>
<td>Level of care required (%)</td>
<td>Support required</td>
<td>52 (26.9)</td>
<td>149 (41.4)</td>
<td>201 (36.3)</td>
</tr>
<tr>
<td>Care level 1</td>
<td>68 (35.2)</td>
<td>104 (28.9)</td>
<td>172 (31.1)</td>
<td></td>
</tr>
<tr>
<td>Care level 2</td>
<td>18 (9.3)</td>
<td>31 (8.6)</td>
<td>49 (8.9)</td>
<td></td>
</tr>
<tr>
<td>Care level 3</td>
<td>25 (13.0)</td>
<td>25 (6.9)</td>
<td>50 (9.0)</td>
<td></td>
</tr>
<tr>
<td>Care level 4</td>
<td>14 (7.3)</td>
<td>35 (9.7)</td>
<td>49 (8.9)</td>
<td></td>
</tr>
<tr>
<td>Care level 5</td>
<td>16 (8.3)</td>
<td>16 (4.4)</td>
<td>32 (5.8)</td>
<td></td>
</tr>
</tbody>
</table>

[Figure 1. Prevalence of common diseases in the study sample by sex and age group]

Sample size of each sex and age group is as follows ($y$ = years old):

Men: 65–74 $y = 55$, 75–84 $y = 103$, over 85 $y = 35$

Women: 65–74 $y = 121$, 75–84 $y = 168$, over 85 $y = 71$. 

[Figure 2. Main medical conditions of LTCI recipients of light care by sex and care level]
Table 2. Main medical conditions of LTCI recipients of light care by sex and care level

<table>
<thead>
<tr>
<th>Care grade</th>
<th>Support required</th>
<th>Care Level 1</th>
<th>Care Level 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persons</td>
<td>52</td>
<td>149</td>
<td>68</td>
</tr>
<tr>
<td>ICD-10 Index numbers</td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
</tr>
<tr>
<td>2. Neoplasms</td>
<td>15.4%*</td>
<td>3.4%</td>
<td>13.2%</td>
</tr>
<tr>
<td>5. Mental and behavioral disorders</td>
<td>3.8%</td>
<td>5.4%</td>
<td>10.3%</td>
</tr>
<tr>
<td>6. Diseases of the nervous system</td>
<td>17.3%*</td>
<td>4.0%</td>
<td>5.9%</td>
</tr>
<tr>
<td>(recount) Dementia</td>
<td>9.6%</td>
<td>4.7%</td>
<td>11.8%</td>
</tr>
<tr>
<td>9. Diseases of the circulatory system</td>
<td>23.1%</td>
<td>13.4%</td>
<td>26.5%</td>
</tr>
<tr>
<td>13. Diseases of the musculoskeletal system and connective tissue</td>
<td>1.9%</td>
<td>53.0%*</td>
<td>14.7%</td>
</tr>
<tr>
<td>19. Injury, poisoning, and certain other consequences of external causes</td>
<td>1.9%</td>
<td>8.7%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Other diseases</td>
<td>36.6%</td>
<td>12.1%</td>
<td>23.5%</td>
</tr>
</tbody>
</table>

Table 3. Results of logistic regression analysis for diseases and main medical conditions associated with the lightest level of care

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimates</th>
<th>P value</th>
<th>Odds Ratio</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women, related diseases</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperlipidemia</td>
<td>0.54</td>
<td>0.004*</td>
<td>2.97</td>
<td>1.43–6.43</td>
</tr>
<tr>
<td>Osteoporosis without pathological fracture</td>
<td>0.31</td>
<td>0.034*</td>
<td>1.88</td>
<td>1.05–3.37</td>
</tr>
<tr>
<td>Gonarthrosis [arthrosis of knee]</td>
<td>0.25</td>
<td>0.03*</td>
<td>1.66</td>
<td>1.05–2.63</td>
</tr>
<tr>
<td>Women, main medical conditions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spondylosis</td>
<td>0.72</td>
<td>0.005*</td>
<td>4.26</td>
<td>1.63–12.47</td>
</tr>
<tr>
<td>Gonarthrosis [arthrosis of knee]</td>
<td>0.67</td>
<td>&lt;0.0001*</td>
<td>3.83</td>
<td>2.08–7.25</td>
</tr>
<tr>
<td>Dorsalgia</td>
<td>0.54</td>
<td>0.046*</td>
<td>2.95</td>
<td>1.03–9.04</td>
</tr>
</tbody>
</table>

Table 3 shows the results of logistic regression analysis for the diseases and main medical conditions associated with the lightest level of care (“support required”) in women. In men, the analysis failed; neither disease nor main medical condition could be detected.

Discussion

Preventive care for musculoskeletal diseases

The Japanese LTCI system has enabled clarification of the fact that musculoskeletal disease triggers ADL decline in the early stages of long-term care. As was found in one previous study,30 the present study showed that the population of frail elderly consisted mainly of women, a high proportion of whom required a relatively low level of care. As in other studies of osteoarthrosis of the knee,31,32 the present study showed a significantly higher prevalence

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among women. As for the main medical conditions among women at the “support required” level, 23% had knee osteoarthritis; of these, 63% had leg muscle weakness, 60% had knee joints contracture, and 46% had lower back pain. Another 9% had spondylosis; of these, 92% had lower back pain, 69% had leg muscle weakness, and 38% had knee pain. In this study, 38% of men and 55% of women at the “support required” level experienced lower back pain (P=0.03), which is a frequent complaint among the elders. Thus, it is apparent that “support required” elders need pain treatment. Lower back pain and knee pain with leg muscle weakness leads to unstable gait and increases the risk of falling. Among Japanese elders, 20% have experienced falls and 25% have an increased risk of falls. In 77% of cases, proximal femoral fractures were caused by falls from standing height. The present study showed that elderly women experience such fractures 3.6 times more often than elderly men do; this is in line with the results of a nationwide survey conducted in Japan, in which females were found to have proximal femoral fractures 4.2 times more often than males. This study also showed that gonarthrosis and osteoporosis without fracture had a positive association with the lightest level of care, while fractures had a positive association with more severe care levels. Therefore, the top priority in maintaining ADL should be fracture prevention.

Fracture risk has been associated with osteoporosis and with leg muscle weakness and has been shown to increase with age. WHO developed the Fracture Risk Assessment Tool (FRAX®) in 2008; the Japanese version shows the 10-year probabilities of osteoporotic fractures in females in their 60s and 80s to be 8.7% and 23%, respectively. Thus, practitioners have to provide comprehensive care packages, not only for pain relief, but also for muscle strengthening and for fall and fracture prevention. Accordingly, maintaining and strengthening muscles through moderate physical exercise as well as the early detection and treatment of osteoporosis with lumbar and knee joint pain control are main preventive care strategies for musculoskeletal disease patients, especially for women in the preliminary stage of care under LTCI. These measures lead to reduced numbers of falls and fractures. Female osteoporosis patients experience lower back pain with significant frequency. In this study, 47% had mild pain and 17% had moderate pain. Clinical visits made for pain management would provide a good opportunity to initiate comprehensive preventive care.

Walking comprises 80% of the physical activity of the elderly and is a very suitable way for elders to strengthen their muscles and prevent falls and fractures. As part of the third National Health Promotion Movement (Healthy Japan 21), 6,700 steps per day for men and 5,900 for women were recommended to people over 70 years of age as a means of realizing an “increase in people with a positive attitude about going out,” and an “increase in the average number of steps per day.” However, 79% of men and 85% of women in Osaka City walk fewer than 6,000 steps daily. As the urban elderly experience a chronic lack of physical exercise, alternative regular group exercise should be considered.

Preventive care for lifestyle diseases

In previous cohort surveys, the mild chronic diseases associated with ADL disability were arthritis and diabetes in women and cerebrovascular disease and malignancies in men. This study also indicates the possible impact on ADL of preventive care directed against cancer and lifestyle diseases, such as hypertension and diabetes. In the present study, the prevalence of neoplasms, 38 Shiraki, M., Narusawa, K. Low back pain factors among elderly women. Sharing research report of clarification of interaction and effects of spinal deformity, lifestyle factors, and lifestyle diseases on back pain in the elderly. Japanese Ministry of Health, Labour and Welfare. Health Research Grants, Comprehensive Research Project on Longevity Science. Research report 2007; 6, 5–77. [In Japanese].
40 Osaka City Health and Welfare Bureaus. ibid.
cerebrovascular disease, and diabetes decreased gradually in successively higher age groups, while the incidence of heart disease increased. For the first three of these illnesses, prevention before age 64 is essential. For some of these diseases, anamnesis can affect prognosis; the quality of life of a person with no previous history of cerebrovascular disease is easier to maintain and improve than the quality of life of individuals with this disease. As another example, if five gastric cancer patients in the present study had been detected in the early stage and could be cured without using LTCI, it would have yielded a 1% advantage for preventive care.

In Japan, the introduction of a western-style diet has, since 1965, led to an increase in the ratio of animal fat consumed. Frequencies of impaired fasting glycemia and impaired glucose tolerance have increased. Hyperlipidemia is more common in women aged 50 and over. Since evidence of treatment after 75 years of age is scarce in Japan, physicians treat individually according to physical and nutritional factors. However, avoidance of the accumulation of multiple risk factors for vascular lesions is important for cardio- and cerebrovascular disease prevention after middle age. Meanwhile, an understanding of the management of hypertension through medical checkups and continual dietary improvements, such as a reduction in salt intake, has been used to deter lifestyle diseases since 1963. In consequence, in model areas, age-adjusted stroke mortality rates and certified rates of LTCI have been generally lower than in other areas. Inevitably, the prevention of both hypertension and diabetes is the most important factor in the reduction of vascular lesions, beginning in middle age.

Therefore, cancer screening, moderate regular exercise, and continued nutrition management, including lipid control to guard against diabetes, should be part of successful preventive care. Habitual regular exercise beginning when individuals are in their late 30s is also recommended for lifestyle disease prevention. A loaded 30-minute daily exercise routine reduces both diabetic and coronary artery disease risks by 30–50%. An active and healthy lifestyle also reduces the risk of dementia.

Limitations and implications

The first limitation encountered in this study is that the family doctors’ documents used for LTCI might not have fully covered frail elders’ diseases. In Osaka, physicians concurrently provide technical treatment in large numbers of clinics and hospitals. Specifically, the ophthalmic attendance rate was 18% in 2005. The committees struggle in handling cases of visual impairment because vision loss is not absolutely reflected in the LTCI system. Secondly, concerning the relationship between disease and age, the author could not address either concrete dementia prevention or other perspectives such as anti-aging medication. Thirdly, previous surveys have seldom investigated the prevalence of diseases covered by LTCI in Japanese urban areas, so there is not yet much basis for comparison. These limitations will hopefully encourage continued study that may lead to the development of more effective healthcare administration.

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Conclusion

Efforts to control musculoskeletal and lifestyle diseases are essential preventive care strategies, especially in the preliminary stages of care under LTCl. Previously proven measures, such as strengthening muscles through moderate exercise, cancer screening, intensive blood pressure control, continuous nutritional management, and thorough diabetes treatment beginning in middle age, can help to prevent fracture, cancer, cerebrovascular disease, and dementia, all of which severely damage quality of life.

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### Appendix

#### Prevalence (%) of disease in the study sample of LTCI recipients, by sex and age group

| International Classification of Disease | Men | | | | | | Women | | | |
|-----------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Number of people                        | 55  | 103 | 35  | 121 | 168 | 71  |     |     |     |     |     |
| [ICD-10] Index numbers                  |     |     |     |     |     |     |     |     |     |     |     |
| 2. Neoplasms*                           | 23.6| 17.5| 5.7 | 6.7 | 4.2 | 2.8 |
| 4. E10E14 Diabetes mellitus             | 29.1| 17.5| 8.6 | 23.1| 13.7| 8.5 |
| E78 Hyperlipidemia*                     | 1.8 | 1.9 | 5.7 | 10.7| 11.3| 4.2 |
| 5. Mental and behavioral disorders      | 21.8| 20.4| 20.0| 14.9| 25.6| 35.2|
| (recount) F01 Vascular dementia         | 12.7| 5.8 | 2.9 | 1.7 | 5.4 | 4.2 |
| (recount) F03 Unspecified dementia      | 3.6 | 10.7| 14.3| 3.3 | 15.5| 22.5|
| 6. Diseases of the nervous system       | 16.4| 15.5| 20.0| 7.4 | 10.7| 12.7|
| (recount) G30 Alzheimer’s disease       | 1.8 | 7.8 | 5.7 | 0.8 | 3.6 | 5.6 |
| 7. Diseases of the eye and adnexa       | 3.6 | 3.9 | 8.6 | 12.4| 5.4 | 2.8 |
| 9. Diseases of the circulatory system   | 56.4| 61.2| 88.6| 58.7| 67.2| 71.8|
| (recount) I10 Essential hypertension    | 36.4| 41.7| 71.4| 47.1| 53.6| 57.7|
| (recount) I20-I25 Ischemic heart diseases| 7.3 | 13.6| 17.1| 4.1 | 11.3| 15.5|
| (recount) I30-I52 Other forms of heart disease | 1.8 | 9.7 | 28.6| 9.1 | 12.5| 19.7|
| (recount) I60-I69 Cerebrovascular diseases* | 38.1| 31.1| 25.7| 22.3| 19.6| 9.9 |
| 10. Diseases of the respiratory system  | 10.9| 11.7| 20.0| 7.4 | 8.3 | 9.9 |
| 11. Diseases of the digestive system*   | 21.8| 17.5| 8.6 | 15.7| 6.0 | 9.9 |
| 13. Diseases of the musculoskeletal system and connective tissue* | 32.7| 38.8| 42.9| 59.5| 66.1| 62.0|
| (recount) M15-M19 Arthritis*            | 10.9| 13.6| 8.6 | 41.3| 42.9| 36.6|
| (recount) M45-M49 Spondylopathies       | 18.2| 21.4| 20.0| 21.5| 22.0| 26.8|
| (recount) M54 Dorsalgia                 | 1.8 | 8.7 | 14.3| 6.7 | 14.9| 9.9 |
| (recount) M80-M81 Osteoporosis*         | 1.8 | 2.9 | 0   | 16.5| 26.2| 18.3|
| 14. N18 Renal failure                   | 7.3 | 3.9 | 5.7 | 2.5 | 1.8 | 2.8 |
| 19. Injury, poisoning, and certain other consequences of external causes* | 5.5 | 8.7 | 11.4| 20.7| 22.6| 29.6|
| (recount) S22, S32, T08 Vertebral fracture | 1.8 | 1.0 | 5.7 | 5.0 | 2.4 | 4.2 |
| (recount) S72 Fracture of femur         | 0   | 1.0 | 2.9 | 0.8 | 3.0 | 9.9 |
| (recount) T91-T93 Sequela of fracture*  | 1.8 | 4.9 | 2.9 | 13.2| 16.1| 11.3|

The values in this table show the frequency (%) relative to the sample size of each group. *difference by sex; P < 0.05.
Main Medical Conditions of Frail Elderly Patients that Require Intensive Care under the Japanese Long-Term Care Insurance (LTCI) System: A Comparison with German LTCI

Background: Although the number of frail elderly individuals has rapidly increased with global aging, few studies have assessed the main medical conditions that are covered by Long-Term Care Insurance (LTCI) systems.

Objectives and methods: To improve preventive care strategies, the author researched data from 553 frail elderly individuals above 65 years of age in the Osaka central area. Logistic regression analysis was used to identify severe diseases associated with levels of care higher than level 3 (3+) under the Japanese LTCI system, which is equivalent to the care standards of the German LTCI system. The main medical conditions were also compared between the LTCI systems of both countries.

Results: Diseases significantly associated with Japanese level of care 3+ were renal failure (odds ratio 6.3), fracture (5.3), dementia (4.4), and cerebrovascular disease (CVD; 2.5) in males and fracture (7.5), heart failure (3.6), dementia (3.3), CVD (2.9), and depression (2.8) in females. Main medical conditions in Japanese patients by gender were dementia (males 29%, females 21%), CVD (males 27%, females 22%), neoplasm (males 11%), and fracture or fracture sequelae (females 24%). Among German LTCI recipients, the main medical conditions by gender were diseases of the circulatory system (males 23%, females 19%) and mental and behavioral disorders (males 17%, females 20%).

Conclusion: Dementia and diseases of the circulatory system, especially CVD, were the most common main medical conditions among Japanese and German LTCI recipients. Intensive blood pressure control and thorough diabetes treatment are the top preventive healthcare strategies for both diseases of the circulatory system and dementia to avoid disease progression and accumulation. Early detection and treatment of cancer in males and prevention of fractures in females are of particular importance.

Keywords: Main medical condition, frail elderly, Long-Term Care Insurance (LTCI), International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10)

Introduction

Aging is a global trend. It is estimated that the percentage of elderly (above 65 years) individuals in Japan will reach 40.5% in 2055. The Long-Term Care Insurance (LTCI) system was first developed in Germany in 1995 and was introduced in Japan in 2000. Both the Japanese and German LTCI systems are primarily involved in determining the degree of degradation of activities of daily living (ADL) and providing the necessary support. According to the German guidelines, long-term care is defined as >90 minutes of care per day for over 6 months, with greater than half of the time accounted for by basic ADL care, such as bathing, toileting, grooming, feeding,

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clothing, walking, cooking, shopping, and housekeeping. The features of the German LTCI system differ from those of the Japanese LTCI system. The German LTCI supplements family care mainly in the form of cash payments for the cost of care for individuals with severely impaired ADL capacity regardless of age. In comparison, the Japanese LTCI provides human services rather than monetary compensation for relatively mild declines in ADL. The lightest level of required care in the German system is equivalent to a more intensive level of care (level care 3) in the Japanese system. Although disease induces ADL dysfunction, few studies focusing on such disease and main medical conditions encountered in LTCI systems have been published in Japan or Germany. In Japan, only 1 large-scale study has been conducted; namely, a study conducted in Shimane prefecture. In Germany, the only available study is a nationwide study conducted by the health insurance bureau using the World Health Organization (WHO) International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10). A precise survey of global aging is required to promote more effective policies that would enable frail elderly individuals to enjoy healthier lives. In the present study, frail elderly people above 65 years of age in the Osaka central area were assessed to develop strategies to improve preventive care. Logistic regression analysis was used to identify severe diseases associated with levels of care higher than level 3 (3+) under the Japanese LTCI system, which is equivalent to the care standards of the German LTCI system. The main medical conditions observed among Japanese LTCI recipients were then compared with those observed among German LTCI recipients to devise more effective preventive strategies against global aging. This is the first comparative epidemiological study of the Japanese and German LTCI systems.

**Materials and methods**

This study was conducted in the central area of Osaka prefecture, the third largest metropolitan district in Japan. The study area spanned 15 km² and had a total population of 200,678, including 95,866 males and 104,812 females as of the end of March 2006. The number of individuals above 65 years of age was 17,104 males (17.8%) and 23,290 females (22.2%). The proportion of frail elderly above 65 years receiving LTCI was estimated to be approximately 18.7%. The author chose 605 random samples from LTCI certification documents, including descriptions of visits and family doctor summaries and comments, issued between October 2005 and March 2006. The sample size comprised 9% of all LTCI recipients in fiscal year 2005. Personally identifiable information, other than gender and age, had been fully deleted from these documents. The author observed district privacy regulations. Of the 605 samples, 21 did not meet the inclusion criteria and 31 were under the age of 65 years. The author used the remaining 553 samples and examined the first to fifth diagnoses from each family doctor’s summary and comments. The 553 samples were examined using logistic regression analysis to identify diseases associated with Japan’s more severe levels of care (levels of care higher than level 3; 3+). Akaike’s Information Criterion (AIC) is a criterion for selecting the optimum model from a set of models, where the model with the lowest AIC is selected as the best. In this study, the stepwise forward selection method was chosen as the optimal model based on the AIC. For cases equivalent to those encountered in the German LTCI system, which included 55 males and 76 females, the author categorized each diagnosis in accordance with the ICD-10 and extracted the main conditions. WHO defines “main condition” as “a condition diagnosed at the end of the episode of health care primarily responsible for the patient’s need for treatment or investigation.” The main

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8 World Health Organization. International Statistical Classification of Diseases and Related Health Problems. Tenth Revision Volume 2,
medical conditions among Japanese LTCI recipients were compared with those among German LTCI recipients from 2001 to 2002. The main medical conditions in the German system were originally categorized for 3 age groups: 20–64 years, 65–79 years, and more than 80 years. The author calculated disease prevalence for individuals aged greater than 65 years using tables for the number of LTCI recipients by age group and gender. A P-value of <0.05 was considered significant. JMP 8.0.1 for Windows was used for statistical analysis.

### Results

Table 1 shows the results of the logistic regression analysis. Fracture, cerebrovascular disease (CVD), and dementia were significant among males and females. Renal failure in males and heart failure and depression in females were also significant.

Table 2 shows the main medical conditions in Osaka and under the German LTCI system. In males, the main medical conditions in Osaka included 6 cases (11%) of neoplasm and 16 cases (29%) of disease of the circulatory system. In females, the main medical conditions included 14 cases (25.5%) of mental and behavioral disorders and 17 cases (29.1%) of diseases of the circulatory system.

### Table 1. Results of logistic regression analysis for diseases associated with Japanese level care 3+ in Osaka

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimates</th>
<th>P value</th>
<th>Odds Ratio</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renal failure</td>
<td>0.92</td>
<td>0.016*</td>
<td>6.25</td>
<td>1.35–29.04</td>
</tr>
<tr>
<td>Fracture</td>
<td>0.83</td>
<td>0.024*</td>
<td>5.27</td>
<td>1.23–23.91</td>
</tr>
<tr>
<td>Dementia</td>
<td>0.74</td>
<td>0.0001*</td>
<td>4.42</td>
<td>2.09–9.51</td>
</tr>
<tr>
<td>Cerebrovascular disease</td>
<td>0.45</td>
<td>0.014*</td>
<td>2.47</td>
<td>1.20–5.11</td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fracture</td>
<td>1.01</td>
<td>&lt;0.0001*</td>
<td>7.51</td>
<td>3.17–18.11</td>
</tr>
<tr>
<td>Heart failure</td>
<td>0.63</td>
<td>0.003*</td>
<td>3.56</td>
<td>1.50–8.25</td>
</tr>
<tr>
<td>Dementia</td>
<td>0.60</td>
<td>0.0001*</td>
<td>3.33</td>
<td>1.80–6.14</td>
</tr>
<tr>
<td>Cerebrovascular disease</td>
<td>0.54</td>
<td>0.001*</td>
<td>2.93</td>
<td>1.54–5.57</td>
</tr>
<tr>
<td>Depression</td>
<td>0.52</td>
<td>0.025*</td>
<td>2.82</td>
<td>1.11–6.94</td>
</tr>
</tbody>
</table>

Males: Akaike’s Information Criterion (AIC) = 108.85, P value < 0.0001*; Females: AIC = 168.02, P value < 0.0001*

### Table 2. Main medical conditions of LTCI recipients in Osaka and Germany

<table>
<thead>
<tr>
<th>ICD-10 numbers and title</th>
<th>Osaka Males [n]</th>
<th>Osaka Females [n]</th>
<th>Germany Males</th>
<th>Germany Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Neoplasms</td>
<td>10.9% (6)</td>
<td>5.3% (4)</td>
<td>14.9%</td>
<td>7.9%</td>
</tr>
<tr>
<td>5. Mental and behavioral disorders</td>
<td>25.5% (14)</td>
<td>18.4% (14)</td>
<td>16.7%</td>
<td>19.8%</td>
</tr>
<tr>
<td>6. Diseases of the nervous system</td>
<td>12.7% (7)</td>
<td>10.5% (8)</td>
<td>10.3%</td>
<td>6.5%</td>
</tr>
<tr>
<td>9. Diseases of the circulatory system</td>
<td>29.1% (16)</td>
<td>22.4% (17)</td>
<td>23.4%</td>
<td>18.6%</td>
</tr>
<tr>
<td>13. Diseases of the musculoskeletal system and connective tissue</td>
<td>3.6% (2)</td>
<td>10.5% (8)</td>
<td>8.1%</td>
<td>16.0%</td>
</tr>
<tr>
<td>18. Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified</td>
<td>0</td>
<td>1.3% (1)</td>
<td>13.9%</td>
<td>19.7%</td>
</tr>
<tr>
<td>19. Injury, poisoning and certain other consequences of external causes</td>
<td>7.3% (4)</td>
<td>27.7% (21)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other diseases</td>
<td>10.9% (6)</td>
<td>3.9% (3)</td>
<td>12.7%</td>
<td>11.5%</td>
</tr>
</tbody>
</table>

ICD-10, International Statistical Classification of diseases and Related Health Problems, tenth Revision

Geneva 2004

system, which comprised heart failure (1), cerebral infarction (9), secondary CVD or sequelae of CVD (4), and cerebral hemorrhage (2). In short, 15 cases (27%) were CVD. Mental and behavioral disorders were seen in 14 cases (26%) and mainly comprised unspecified dementia (10) and vascular dementia (2). Diseases of the nervous system were seen in 7 cases (13%), including Alzheimer’s disease (4) and Parkinson’s disease (1). The total number of dementia cases, including unspecified dementia, vascular dementia, and Alzheimer’s disease, was 16 (29%). The main medical conditions in females were neoplasm in 4 cases (5%) and disease of the circulatory system in 17 cases (22%), which comprised cerebral infarction (9), secondary CVD or sequelae of CVD (7), and cerebral hemorrhage (1). Mental and behavioral disorders were seen in 14 cases (18%) and mainly comprised unspecified dementia (10) and vascular dementia (2). Diseases of the nervous system were seen in 8 cases (11%), consisting of Alzheimer’s disease (4) and Parkinson’s disease (4). The total number of dementia cases was 16 (21%). Injury, poisoning, and certain other consequences of external causes (hereafter injury or fracture) were seen in 21 cases (28%). The latter comprised 15 cases (20%) of fracture and 3 cases (4%) of sequelae of fracture.

The main medical conditions among German LTCI recipients by gender were as follows: diseases of the circulatory system (males 23%, females 19%), mental and behavioral disorders (males 17%, females 20%), and diseases of the nervous system (males 10%, females 7%). Symptoms, signs, and abnormal clinical and laboratory findings not classified elsewhere (hereafter clinical symptoms and abnormal signs) were seen in 14% of males and 20% of females, of which 78% were senile.

Table 3 shows a comparison of the main medical conditions in Osaka and the German long-term care insurance system by age group (65–79 years and >80 years). In German individuals aged 65–79 years, the prevalence of neoplasm was 20% in males and 14% in females, which was relatively higher than that observed in Osaka. Clinical symptoms and abnormal signs were seen in one quarter of the German patients aged >80 years, and >35% had dementia. The incidence of fractures and fracture sequelae was 35% among frail females aged >80 years in Osaka.

**Table 3. Main conditions of LTCI recipients in Osaka and Germany by age group and gender**

<table>
<thead>
<tr>
<th>ICD-10 numbers and titles</th>
<th>65–79 years old</th>
<th>More than 80 years old</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Osaka</td>
<td>Germany</td>
</tr>
<tr>
<td>2. Neoplasms</td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td></td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>5. Mental and behavioral disorders</td>
<td>23%</td>
<td>11%</td>
</tr>
<tr>
<td>6. Diseases of the nervous system</td>
<td>19%</td>
<td>8%</td>
</tr>
<tr>
<td>9. Diseases of the circulatory system</td>
<td>31%</td>
<td>33%</td>
</tr>
<tr>
<td>13. Diseases of the musculoskeletal system and connective tissue</td>
<td>0%</td>
<td>17%</td>
</tr>
<tr>
<td>18. Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>19. Injury, poisoning and certain other consequences of external causes</td>
<td>8%</td>
<td>19%</td>
</tr>
<tr>
<td>Other diseases</td>
<td>11%</td>
<td>4%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Discussion**

The results of the present study demonstrate that the diseases in males significantly associated with Japanese level of care 3+, which is equivalent to German LTCI care, were renal failure, fracture, dementia, and CVD. In females, fracture, heart failure, dementia, CVD, and depression were associated with the higher level of care. The main medical conditions in Japan by gender were dementia (males 29%, females 21%), CVD (males 27%, females 22%), neoplasms (males 11%), and fracture or fracture sequelae (females 24%). Among German LTCI
recipients, the main medical conditions by gender were diseases of the circulatory system (males 23%, females 19%), mental and behavioral disorders (males 17%, females 20%), neoplasms (males 15%), and diseases of the musculoskeletal system and connective tissue (females 16%).

Dementia and diseases of the circulatory system, especially CVD, were the main medical conditions in frail elderly individuals in both Osaka and Germany. In 2002, home interview examination of Japanese LTCI recipients revealed that the proportion of individuals with cognitive dysfunction equal to dementia was 46%. It is estimated that, in Japan, the number of stroke patients, both males and females, requiring long-term care will reach nearly 400,000 by 2025. In Germany, dementia, CVD, and depression are significantly common in frail elderly individuals. Sixty-nine percent of nursing home residents were dementia patients. In 2005, the incidence rates of CVD, including recurrence, in individuals aged 65–74 years, 75–84 years, and >85 years in Hessen were 0.8%, 2%, and 3%, respectively. Of the total German population, 1.2% (one million individuals) were stroke survivors. A year after onset of CVD, 64% of stroke survivors required some form of care, of which 15% required LTCI. CVD is a risk factor for dementia; 24–30% of stroke survivors are known to suffer from post-stroke dementia, and each episode of stroke increases the risk of cognitive impairment and dementia three- and two-fold, respectively.

Hypertension is a causative condition for CVD, ischemic heart disease, heart failure, and kidney failure, and increases the risk of diabetes. Diabetes is a risk factor not only for cardio- and cerebrovascular disease but also for the onset of dementia. Both hypertension and diabetes are common among elderly Japanese and German individuals. The prevalence of hypertension in Japanese individuals in their 60s and above 70 years was 67% for males and 58% for females, and 71% for males and 73% for females, respectively. The corresponding percentage of patients with strongly suspected diabetes (glycosylated hemoglobin [HbA1c] more than 6.1% or receiving treatment) has been shown to be 15% for males and 13% for females, and 21% for males and 15% for females, respectively. The prevalence of hypertension in elderly German individuals above 65 years of age has been shown to be >80%; however, good blood pressure control with treatment is achieved in only one quarter of the patients. The incidence of diabetes (doctor-diagnosed: HbA1c more than 6.1%) in individuals aged 55–64 years, 65–74 years, and above 75 years has been estimated at 21%, 29%, and 28% in males, and 15%,

21 Nash, DT., Fillit, HF. Cardiovascular disease risk factors and cognitive impairment. American Journal of Cardiology 2006;97:1262-1265
The prevalence of cardiovascular disease in type 2 diabetes is 8–23%, which is 2 and 4 times as high as that in non-diabetic males and females, respectively. Hypertension in combination with diabetes in German individuals more than 60 years old by gender was 30% and 18% in males, and 25% and 16% in females, respectively. The prevalence of diabetes and hypertension with diabetes in non-diabetic males and females, respectively. The prevalence of CHD and other types of heart disease, which is 20% and 25%, respectively, in hypertensive patients without diabetes, increases to 34% and 39%, respectively, in hypertensive patients with diabetes.

In the present study, logistic regression analysis revealed that renal failure in males and heart failure in females were significantly associated with the need for intensive care. The heart and kidney are closely related pathophysiologically and disease worsens in a vicious cycle known as cardiorenal syndrome. Onset of heart and kidney failure is associated with lifestyle-related diseases, which result in the deterioration of the two organs. Depression is considered a sign of serious conditions requiring intensive care. In the elderly, depression is closely related to dementia. Depression may be an early symptom of dementia, or may develop into dementia. Compared with people that do not suffer from depression, those with depression have a 2- to 3-times higher incidence of dementia. The incidence of depression in the elderly was not only significantly higher in females, but was shown to occur in relation to terminal illnesses. Also in the present study, depression was observed concomitantly with serious illnesses such as neoplasm, stroke, and dementia.

In the present study, fracture was significantly more common in females. The prevalence of dementia in females with fracture or sequelae of fracture was 14%. Femur fracture significantly impairs ADL, particularly walking, and is often associated with dementia. The population-attributable risk of lower limb fracture for impaired ADL in Japanese females above 75 years old has been shown to be 35%.

From the viewpoint of prevention, effective antihypertensive and diabetic treatment are essential during later life to reduce the risk of vascular lesions. The
prevention of cumulative vascular risk factors contributes to the maintenance of instrumental ADL. Hypertensive treatment has been shown to reduce the risk of stroke by 30–39% and that of CHD by 20–28%, and has also been shown to lower the long-term cumulative risk of developing dementia. With regard to gender, early detection and treatment of cancer in males and prevention of fractures in females are of particular importance.

Limitations and implications

Osaka samples for higher than level of care 3 were small. Furthermore, the prevalence of injury, poisoning and certain other consequences of external causes such as fractures and fracture sequelae in the German LTCI recipients was unknown. These limitations hindered precise comparison. Further research is required to develop appropriate preventive and effective care. The present study is the first epidemiological study comparing Japanese and German LTCI recipients. This study will trigger further comparative studies to create more effective and sufficient preventive healthcare strategies for global aging and urbanization.

Conclusion

Dementia and diseases of the circulatory system, especially CVD, were the most common main medical conditions among Japanese and German LTCI recipients. Intensive blood pressure control and thorough diabetes treatment are the top preventive healthcare strategies for both diseases of the circulatory system and dementia for avoidance of disease progression and accumulation. Early detection and treatment of cancer in males and prevention of fractures in females are of particular importance.


<table>
<thead>
<tr>
<th>1. 募集内容</th>
<th>本誌は日本の医療や病院の実情を海外に紹介、PRするもので、看護の実態とか医療制度の問題なども含み、関連する論文や研究報告など他誌に発表されていないものとする。（国内既発表のものも含むが翻訳で国外未発表のものは可）</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. 読者対象</td>
<td>国際病院連盟（IHF）のA会員（各国を代表する病院協会または政府機関）及びアジア病院連盟（AHF）の会員（同）ほか関係先。国内では大学医学部付属図書館等。</td>
</tr>
</tbody>
</table>
| 3. 原稿様式 | ① A4用紙に英文でワープロ使用、メディア媒体での提出を原則とする。プリントアウト原稿と日本語の要約も添付する。
② 図、表、写真（モノクロみ）は鮮明な原画を添付する。
③ 執筆者の顔写真1葉も添付。 |
| 4. 採択等 | ① 受理した原稿の採否は下記委員会で決定する。
② 初校のみ著者校正あり。
③ 謝礼は別刷50部をもって代える。
（別途、希望される場合は投稿時に申し込む。有料にて増刷する） |
| 5. 原稿締切 | 2012年3月31日 |

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This journal will introduce the accomplishments of Japanese healthcare and hospitals to the rest of the world, and do public relations for them. It will include the actual situation of nursing care, problems of the healthcare system, etc., and other subjects that are not published in other journals, such as related papers and research reports. (Articles which have been published in Japan, but have not been published in translation in other countries are also acceptable.)

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(3) Also attach one facial photograph of the author.

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Tsuneo SAKAI

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