Beyond the Threshold towards a "Super-Aged Society"

Increasing physical frailty and an increasing incidence of dementia. Marking a qualitative change in the individuals constituting society, this future trend also represents a significant shift in the nature of society. Problems associated with the elderly caring for the elderly and single-person elderly households are becoming increasingly severe, but no solutions are yet in sight. This issue of *My Vision* reconsiders the direction for medical and nursing care services and the financial burden they entail against the background of the diversification of values and ways of life in Japan.

About this Issue

Medical and nursing care that supports the independence of the elderly

Noriyuki Yanagawa

NIRA Executive Vice President, Professor of Graduate School of Economics, The University of Tokyo Keywords...National debate, diverse choices, increased burden, quality of life

Expert Opinions

Beyond the Threshold towards a "Super-Aged Society"

How can we realize medical and nursing care for the elderly which offers high quality, efficiency and a diverse range of choices?

How should we approach the financial burden of such a system?

In this issue of My Vision, five experts in the field consider the direction for Japan's system of medical and nursing care for the elderly and the burdens it entails.

The merits of home medical care and community-based regional care systems

Tetsuo Tsuji

Professor, Institute of Gerontology, The University of Tokyo

Keywords...Community-based regional care, home treatment, care services offering 24-hour response, lifelong residence in one's own home

An inevitable paradigm shift from simple cure to cure with extended care support in a "Super-Aged Society"

Kenji Toba

President, National Center for Geriatrics and Gerontology

Keywords...Cure with extended care support, frailty, dementia, maintenance of activities of daily living (ADL)

Comprehensive policy is essential to creating health

Kohei Onozaki

Board Member, Health and Global Policy Institute

Keywords...Social determinants of health, comprehensive policy, global provision of information, social creation

Dementia will be the major issue of the future

Yasuko Hashimoto

Emeritus Professor, Taisho University

Keywords...Independence, dementia, facility-based care, human resources for nursing care

Big Data will create a caring society in which no-one is left behind

Masaru Kitsuregawa

Director General, National Institute of Informatics and Professor, Institute of Industrial Science, The University of Tokyo

Keywords...Big Data, data analysis, understanding of situations, cross-sectoral cooperation

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About this Issue

Medical and nursing care that supports the independence of the elderly



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A Problem that is Every Citizen's

Everyone grows old. Problems affecting the elderly are not another person's problems; they will affect every citizen. Medical and nursing care services in particular have a significant effect on the quality of life of the elderly, and at times can even affect their lifespan. Given this, the necessary direction for these services is something to which we must give more careful consideration.

As we age, our bodies become weaker, and applying the same forms of medical treatment to the elderly as to the young may not always benefit the elderly patient. As a nation, we must more seriously discuss and examine the various choices available in relation to the direction for medical and nursing care services for the elderly. This will include consideration of how the process of

growing old can be a happy one, which is in some sense a philosophical question.

However, we tend to avert our eyes from these issues. In part this is because people who have not yet become elderly lack real experience of the issues, but it is also the case that because these are specialized issues, they have historically been left to specialists. Another reason, no doubt, is the fact that the issue of financial resources – who bears how much of the burden – is also involved.

Precisely because the issue of financial resources is also involved here, it will be essential to discuss what types of medical and nursing care services are actually necessary, and what types of lifestyle we desire (taking into consideration the associated financial burden). Based on this awareness of the issues, in this issue of My Vision, five specialists with long experience of the issues of medical and nursing care for the elderly discussion directions for the future based on their individual perspectives.

An Increase in the Burden on the Elderly is Unavoidable

Professor Tetsuo Tsuji of The University of Tokyo's Institute of Gerontology, is conducting a model "community-based regional care" project in Kashiwa City, Chiba Prefecture, pursuing the realization of a mechanism enabling the elderly, to the extent possible, to live comfortably in their own homes until the end of their lives. With consideration of the fact that living in one's own home is linked to independence, promotion of the widespread use of community-based regional care systems, the core feature of which is home-based medical care, is attracting attention as one direction in which to proceed for Japan's aged society.

Naturally, the realization of this goal will entail considerable expense, but Professor Tsuji contends that if the elderly are able to remain living in their own regions, the burden of expense should be accepted positively.

At the same time, while considering that enabling the elderly to live independently is a fundamental necessity, Emeritus Professor Yasuko Hashimoto of Taisho University stresses the difficulty of independent living for elderly dementia sufferers. No matter how loving the family, Professor Hashimoto indicates, the possibility of mishaps such as the dementia sufferer wandering off make support by the family or the region difficult, pointing to the limits of current community-based regional care.

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Nevertheless, Professors Tsuji and Hashimoto are agreed that measures targeting the elderly will necessitate considerable financial resources, and that it will be necessary for the elderly themselves to prepare themselves for an increased burden.

We can reliably predict, then, that medical expenses for the elderly will continue to be high into the future. Against this background, Kenji Toba, President of the National Center for Geriatrics and Gerontology, questions the very nature of medical care for the elderly. Stressing that the situation of the elderly differs from that of young people qualitatively and essentially, Dr. Toba urges the necessity for a transition from medical care that focuses on achieving a cure in the acute phase, to medical care that both cures and provides support, encompassing family caregiving.

At the same time, Dr. Toba also agrees with the previous two interviewees that the expense of medical and nursing care for the elderly will certainly increase, and considers that this increase will include the expense of training and education for medical and nursing care personnel. Dr. Toba points out the necessity for every citizen to see this problem as their own problem, and to make choices accordingly.

Serious Discussion involving the Entire Public is Needed

Could we realize better medical care and nursing care services by collecting more data related to medical care, i.e. by using Big Data? Professor Masaru Kitsuregawa, Director General of the National Institute of Informatics, indicates the importance of realizing an accurate understanding of the actual situation through the analysis of data before considering measures to address problems based on past experience and knowledge. He also emphasizes the significant benefit data analysis techniques provide in making the results of measures and associated problems visible.

Professor Kitsuregawa further suggests that initiatives targeting the disabled in addition to the elderly will be important from the perspective of acceptance of diversity.

Kohei Onozaki, a member of the Board of Directors of the Health and Global Policy Institute, indicates that it will be necessary to think about policy with a greater focus on the social determinants of health. He stresses the importance of infrastructure and community-building, citing the fact that living in a town in which one has a significant amount of contact with the local community reduces the risk of illness. This naturally necessitates significant financial resources, and Mr. Onozaki also points out that it will be necessary to increase the burden on the elderly who have the ability to pay.

Mr. Onozaki further reminds us that from a global perspective, Japan's population is aging faster than any other, and the world's eyes are on us; this suggests that we must make a greater effort to make the world aware of Japan's successes and its failures in this area.

As these interviews indicate, the types of medical and nursing care services for elderly citizens looked towards by the experts do not completely coincide. However, in a certain sense this is entirely natural. It is appropriate that there should be a more diverse range of choices available in future; as indicated at the outset, it will be essential to engage in further discussion, involving the public as a whole, as to the nature of the quality of life we seek to realize, taking into consideration also how we can secure the necessary financial resources.

Professor Yanagawa holds a doctorate in economics from The University of Tokyo. He specializes in contract theory and the study of financial contracts

The merits of home medical care and community-based regional care systems



Tetsuo TsujiProfessor,
Institute of Gerontology,
The University of Tokyo

Extending the period during which the elderly are healthy will be of great importance as Japan becomes a "super-aged society." In order to realize this goal, it will be essential to create regions and communities in which it is easy for the elderly to leave their homes and continue to participate in activities and gatherings, ensuring that they do not become shut-ins. At the same time, it will be desirable to enable the elderly, even if they have become frail, to live securely in their own homes until the end of their lives. We have created a model of "community-based regional care" in Kashiwa City, Chiba Prefecture, based on these concepts.

With community-based regional care, we are seeking to create a care system that enables the elderly to continue to live, to the greatest extent possible, in the place that they consider their home. Even if an elderly person living alone is prone to illness, care and nursing services on 24-

hour call will enable that person to receive home nursing and care visits. It is extremely important that if an elderly person so desires, they should be able to choose to receive home medical care and to die in their own home. Of course there will be elderly people who require facility-based care, for example those suffering with serious dementia, but offering the choice for the elderly to stay in their own homes is the path to ensuring their independence. It has been shown that living in their own homes and engaging in daily activities is directly linked to independence in the elderly.

The government is also implementing systemic reforms towards realizing more widespread use of home medical care, and is considering the introduction of up-to-the-minute home care services available 24 hours a day. With 2025 as the target, these efforts are looking towards the diffusion of community-based regional care systems based on home medical care to regions throughout Japan. The establishment of healthcare and nursing care systems of this type will unavoidably result in an ongoing increase in social security premiums and taxation payments. However, if it is considered that the additional financial burden will be utilized towards the creation of regions in which one will be able to continue to live securely no matter what one's age, it should be possible for people to accept a higher level of financial burden as a positive.

The existence of home medical care and a community-based regional care system in the region in which an elderly person lives will enable that person to live out their years in the house that they built, or in their own apartment. This arrangement also offers benefits to younger people; for example, it will assist in doing away with the necessity to leave employment in order to provide care to a family member, and, by developing caring and other service industries in the nation's regions, will generate regional employment. Despite entailing a certain financial burden, the further diffusion of care systems in Japan's regions will be an extremely positive thing. It is my hope that with these initiatives we will strive to make Japan a truly abundant nation.

Professor Tsuji leads the project "Senior citizens' new career model in the community" being conducted in Kashiwa City, Chiba Prefecture, which is attempting to create a model for community-building for an aging society. During his tenure with the Ministry of Health, Labour and Welfare, he was involved in the reform of Japan's system of medical care. Following graduation from The University of Tokyo's Faculty of Law, he entered the then-Ministry of Health and Welfare, holding positions including Director-General of the Health Insurance Bureau and Administrative Vice Minister of Health, Labour and Welfare before his retirement from the Ministry in 2007. Professor Tsuji then held professorial positions at Den-en Chofu University and in the Institute of Gerontology, The University of Tokyo, before taking up his present position in 2011.

Dementia will be the major issue of the future



Yasuko Hashimoto Emeritus Professor, Taisho University

I believe that even in old age, living independently is fundamental to human beings. It is important for the elderly to maintain their daily activities based on their own efforts, and to rely on their families as little as they are able. Even if seniors are ill and physically weak, assuming that they possess the necessary economic reserves, it is not impossible for them to continue living independently, making use of Japan's existing social security system. If this is possible, they do not place too great a burden on their families, and are able to assert themselves within their family relationships. They are able to live autonomously, on their own terms.

Whether a person will be cared for by their family after reaching old age rests on history; what type of life did they lead with their family, what type of parent-child relationship did they create? If the

relationship is good, it is not impossible to expect a child to look after a parent in old age. However, the family cannot be expected to care for a spouse or parent who has let them down over the years. Family circumstances differ from family to family.

In the future, as the number of elderly citizens increases, the major problem will be dementia. It is impossible for dementia sufferers who have lost the power of judgment to live independently, and it is extremely difficult for their families or their neighbors to care for them. No matter how loving the family, it is not possible to completely eliminate the possibility of, for example, crossing accidents as a result of the dementia sufferer wandering, or the occurrence of abuse due to carer fatigue. Facility-based care is the only sustainable option.

Current community-based regional care initiatives are proceeding in the directions of home care and regional care, and serviced residences for the elderly are steadily being constructed. However, checks of safety and consultations regarding issues in daily life are not sufficient as care for dementia sufferers. We must recognize that there are limits to the support that can be provided by the family and by the region.

Human resources for nursing positions are lacking both in terms of quality and quantity. Nursing staff in residence facilities must offer support tailored to the specific inclinations and way of life of individual dementia sufferers. This necessitates education and training that will increase the level of specialization of nursing knowledge and techniques. In order to address the shortage of human resources, it will also be necessary to consider measures related to the treatment of staff, for example in the area of salary. Financial resources will be required for measures targeting the elderly population, and the elderly themselves must be prepared for an increase in the financial burden on them. An increase in the proportion of the financial burden borne by the elderly themselves seems unavoidable.

Professor Hashimoto has been engaged in the study of policy targeting the elderly since serving as a member of the then-Ministry of Health and Welfare's Nursing Care Strategy Review Panel in 1989. She was also instrumental in the establishment of the long-term care insurance system. Following graduation from the Social Welfare course of Japan Women's University's Faculty of Human Sciences and Design, Professor Hashimoto held positions including Director of the Kosai Care Center and Professor in Taisho University's Faculty of Human Studies, taking up her current position in 2008. In 2016, she was awarded the Achievement award of the Yomiuri Dementia Care Award, presented by the Japanese Society for Dementia Care.

An inevitable paradigm shift from simple cure to cure with extended care support in a "Super-Aged Society"



Kenji Toba
President,
National Center for
Geriatrics and Gerontology

Japan's low birthrate and aging population does not simply mean that the number of elderly people will increase. It also means that the number of people aged 85 or above who are unable to maintain basic activities of daily living (ADL), such as walking and eating, and who are unable to live by themselves, will increase. Above all else, we must appreciate that the situation of an elderly person, both physiologically and socially, differs qualitatively from that of a young person.

One-third of the elderly aged 80 and above can be classified as "frail," exhibiting the mental and physical debilitation and decline associated with advancing age. If people in this state of frailty undergo a surgical procedure, only one in twenty, or 5%, will be able to return to their own homes and reintegrate into society. In addition, dementia is frequently concurrent with frailty. It is currently the case that the majority of dementia sufferers in Japan live at home, but when the behavioral and psychological symptoms of dementia (BPSD) are

present, the burden on the family is high.

Up to the present, we have thought it sufficient that medical treatment should help to maintain ADL; however, whether or not the individual under treatment is able to return to their former life will be the measure of medical treatment for the elderly in the future. It will be essential for us to determine measures to address the frailty and dementia which can characterize old age, and to make the transition from a medical care focused exclusively on achieving a cure in the acute phase, to a medical care that cures and supports, encompassing rehabilitation and the provision of care to family caregivers during the recovery phase.

In order to realize high-quality and efficient medical care that is both curative and supportive, it will be necessary to provide training and education to medical and nursing staff.

What will be required will be to reduce the stress of treatment on patients during the acute phase, for example through the use of minimally invasive surgical techniques and administration of the minimum necessary drugs. In the area of nursing care for dementia patients, it will be essential to provide support for consultation with caregivers, and to ensure that knowledge regarding responses and methods of treatment able to ease BPSD are passed on. This will necessitate a certain amount of spending, but from the long-term perspective it represents an extremely important investment.

At the same time, the expenses associated with medical and nursing care of the elderly will also steadily increase, rising year by year until they resemble a tsunami poised to engulf Japan. While a decline in the quality of medical and nursing care for the elderly might aid public finances, the burden would be borne by families, with consequences including the leaving of employment for caregiving and "elder-to-elder care". In order to enable us to avoid the worst case scenarios, all citizens must consider these problems to be their own problems, and make the appropriate choices.

Dr. Toba is the President of the National Center for Geriatrics and Gerontology, the only institution in Japan commissioned by the government to conduct research in the fields of geriatrics and gerontology. Specializing in geriatrics, dementia, falls among the elderly, and geriatric syndromes, he actively addresses issues of the elderly and cognitive domains. Dr. Toba graduated from The University of Tokyo Faculty of Medicine, and holds a Ph.D. in medicine. He took his present post in 2014, after holding positions including assistant professor in The University of Tokyo's Faculty of Medicine, and Director of Kyorin University Hospital's Center for Comprehensive Care on Memory Disorders. Dr. Toba was Vice Chairman of the Japan Geriatrics Society and a certified physician and attending physician of the organization; he also holds a number of public offices, including as the Head of the Ministry of Health, Labour and Welfare's Fall Prevention Research Group.

Big Data will create a caring society in which no-one is left behind



Masaru Kitsuregawa
Director General, National
Institute of Informatics and
Professor, Institute of
Industrial Science,
The University of Tokyo

The problems facing Japanese society today are, exclusively, fundamentally complex problems. Simple problems have been addressed to a significant degree, and those that remain resist easy solutions. No method is available to us in addressing these problems but to gather and carefully analyze data that provide evidence, seeking clues towards a solution. In the world of academia also, the importance of a foundation of Big Data in attempting to elucidate the truth is strongly recognized, and the construction of these foundations is underway.

Detailed analysis of the data held by such institutions as municipal administrations and medical and nursing care facilities highlights the specific issues of medical and nursing care in specific regions. This is a moment when IT specialists are able to demonstrate their capabilities. An analysis of medical and nursing care data being conducted by The University of Tokyo and the

Institute for Health Economics and Policy in collaboration with municipalities and other entities in Mie Prefecture has shown that while the residents of Tsu and Yokkaichi cities are well provided with medical and nursing care services within the urban area, residents of the southern region of Mie Prefecture must travel long distances to receive these services. In addition to this, the analysis of a diverse range of data (regional characteristics of lifestyle diseases, trends in the use of high-cost medical equipment, differences in the cost of treatment for the same illness, etc.) is making the actual status of medical treatment in the prefecture visible. Gaining a concrete understanding of the situation is the major first step, prior to considering solutions based on past empirical knowledge.

Another merit of the use of Big Data is that it makes the effects of measures observable. If the specific benefits of the implementation of a policy are known, it spurs the motivation to go further. An atmosphere of reform is generated in municipal administrations and other entities involved. However, expecting municipalities to undertake analyses of Big Data in their entirety would be to place too great a burden on them. We IT specialists must create data platforms, and allow the individuals concerned in municipal administrations and people living in specific regions to exercise their ingenuity on these platforms in seeking solutions to the specific issues that affect them. It will be vital to create such a system. The essential point will be to ensure that medical professionals, individuals involved in administration, and IT specialists engage in dialogue that transcends their particular areas, and think about issues together.

Rather than an exclusive focus on the elderly, efforts in support of the disabled will also be important. Big Data enables long tail analyses that leave no-one behind, as exemplified by its ability in the case of rare diseases. It is my hope that Big Data will contribute to the creation of a genuinely caring society.

Professor Kitsuregawa is a pioneer of database research. He led the Ministry of Education, Culture, Sports, Science and Technology's "Info-plosion" project (2005-2010), and headed the Cabinet Office's Funding Program for World-Leading Innovative R&D on Science and Technology, which focused on ultra-large databases. A specialist in the field of data engineering, Professor Kitsuregawa completed the Doctoral Program of The University of Tokyo's Graduate School of Information Engineering, and holds a Ph.D.in engineering. After holding positions including Director of The University of Tokyo's Earth Observation Data Integration & Fusion Research Initiative, he became Director General of the National Institute of Informatics in 2013. He also holds the position of professor in The University of Tokyo's Institute of Industrial Science, and was President of the Information Processing Society of Japan (2013-2014). Professor Kitsuregawa is the recipient of numerous honors, including the Medal of Honor with Purple Ribbon and Chevalier de la Legion d'honneur.

Comprehensive policy is essential to creating health



Kohei Onozaki Board Member, Health and Global Policy Institute

The media often focus on Japan's nursing care problem and fears of fiscal collapse, and perhaps stir up a greater level of anxiety among the public than is actually necessary. The social insurance system (healthcare, pensions, etc.) is quite robust as a foundation for social systems, and Japan and Germany are the almost only nations to establish a nursing care insurance system. Many problems remain, including measures to respond to dementia, but from a global perspective, Japan possesses significant advantages in its systems for the support of an aging society. The Japan's aging and population transition are the most rapid in the world, but we must also recognize the fact that the population is one of the healthiest and highest longevity in the world.

I would like to emphasize the importance of social determinants of health (SDH) as factors in creating a healthy society. Rather than merely

curing diseases, it is necessary to give consideration to the upstream factors that promote health. Medical treatment alone will not maintain health. For example, poor diet and work stress increase the risk of diabetes. On the other hand, if one lives in a town in which one has significant contact with the local community, the risk of disease declines. This calls for comprehensive policy measures from local governments, encompassing initiatives including nutritional guidance, urban planning, infrastructure (water, roads, etc.) and community-building. Financial resources will be necessary to the realization of these policies. It will be essential to steadily increase the consumption tax to between 15 and 20%, a measure which will be politically difficult. And increased consumption tax will not be sufficient by itself – it will also be necessary to increase social insurance premiums. In addition to this, we should also further increase the amount contributed by the elderly who are able to pay.

Intergenerational inequity, the placing of an excessive burden on the young, has been much discussed of late, but is it true? The social insurance and infrastructure that we make use of every day and take for granted is entirely the result of the efforts of our predecessors of the past generation and the financial burden that they shouldered. Our daily lives are built on this foundation. We must be more grateful for this fact.

The final point that I would like to emphasize is that Japan is at the forefront of the process of aging of society, and other nations are watching Japan's experience. The majority of healthcare and social security issues are common in nations throughout the world. However, Japan's efforts to provide the world with information in the field of social security remain insufficient. What is demanded of Japan now is a global contribution — communicating to the global society Japan's lessons learnt, both its successes and its failures, at the same time as humbly learning from advanced cases around the world.

A native of Mie Prefecture, Mr. Onozaki first held positions with companies including the healthcare corporation Johnson & Johnson before holding planning and management positions with the independent non-profit corporation the Health and Global Policy Institute. He now serves as a member of the Board of Directors of the Institute. Mr. Onozaki is currently engaged in a number of parallel activities; in addition to working in EgonZehnder Tokyo office, he is also serving for several non-profit organizations, with a focus on the fields of education and healthcare. Since 2015, Mr. Onozaki has been served as Special Advisor on Health Policy, the Ministry of Health, Labour and Welfare. He also served as Secretary General of the Health Care 2035 Advisory Panel, an advisory panel to the Minister of Health, Labour and Welfare which seeks to formulate a vision for healthcare policy looking toward 2035. Mr. Onozaki is also the author of numerous articles and papers concerning healthcare policy and the healthcare industry.