National University Hospital Council of Japan’s Realization of the Future Vision

Action Plan 2013

National University Hospital Council of Japan
Achieving the Mission of National University Hospitals: Plan to Realize Their Vision

National university hospitals have endeavored to fulfill their role of ensuring the appropriate provision of education, research, medical care, and so forth to respond to the recent changes in social conditions and the medical structure. However, medical environments in Japan are expected to undergo further changes, as signified by the current rapid aging of society.

Thus, in consideration of what we could offer to society and how we should contribute to this effort, the National University Hospital Council of Japan developed a proposal for its future course of action, “Searching for the Future Vision of National University Hospitals – Challenges and Prospects” (hereinafter “Challenges and Prospects”). This proposal, developed in March 2012 and finalized recently, attempted to foresee how national university hospitals should look in ten years.

Subsequently, aiming to address the “Challenges and Prospects,” the National University Hospital Council of Japan established seven project teams—namely, Education, Medical Care, Research, Contribution to Local Communities/Society, Globalization, Management, and Dentistry—led by physicians who will play a major role in medical care in the future, and has explored the subject to date. In the present document, the “Realization of the Future Vision: Action Plan 2013” (hereinafter “the Action Plan 2013”), we particularly intended to lay out the goals that can be achieved in a short period to remind national university hospitals of the contents of said goals, and hopefully expedite action towards their implementation.

We are confident that the implementation of the Action Plan 2013 will not only help improve the quality of Japanese medical care, but will also significantly contribute to the promotion of local economic and industrial growth with reference to the country’s policy for the enhancement of medical innovation.

Lastly, the quality of the accomplishment of these goals can be further enhanced by ensuring that each staff member working at national university hospitals maintains high motivation and makes efforts towards achieving this action plan. I count on the continued support of each of you involved in this endeavor.

Masaru Miyazaki
Chairperson of Standing Committee, National University Hospital Council of Japan
Hospital Director, Chiba University Hospital
Realizing the Future Vision of National University Hospitals: Translating the 44 Proposed Points into Action

National University Hospital Council of Japan

**Education**
In order for national university hospitals to play a key role in human resource development, the following steps need to be taken:
1) Implementation of education that emphasizes the clinical field,
2) Provision of support for career building and general clinical education, in cooperation with local communities, etc.
3) Development of educators,
4) Cooperation with graduate schools and the specialist physician system,
5) Establishment of a system to support reemployment/return to previous work, etc.

**Medical Care**
In order to provide advanced, safe medical care, the following steps need to be taken:
1) Establishment of “quality indicators” regarding medical care and disclosure of said indicators to the public,
2) Consolidation of frameworks for medical care,
3) Deregulation,
4) Restructuring/establishment of medical care departments,
5) Enhancement of information sharing among hospitals, etc.

**Research**
In order to enhance the quality and quantity of clinical research, the following steps need to be taken:
1) Improvement of research and development environments,
2) Securing steady research funding,
3) Establishment of a system in which a research-oriented mindset is promoted,
4) Establishment of an inter-hospital network and clarification of role assignment,
5) Reinforcement of functions for dispatching information, etc.

**Contribution to Local Communities/Society**
In order to play a role as the hub institution of community medicine, the following steps need to be taken:
1) Development/deployment of physicians adapted for the changes in the disease structure and the structure of an aged society with declining birthrate,
2) Standardization and sharing of medical care information,
3) Creation of innovative businesses with corporations located in the hospital’s region.
4) Proactive participation in crisis management, such as disasters, etc.

**Globalization**

In order to organize a global medical care network and accelerate the development of internationally minded human resources and interaction among personnel, the following steps need to be taken:
1) Establishment of a global network,
2) Communication of global medical care information,
3) Designing a global distance learning program,
4) Improvement of global competitiveness aiming at development of highly advanced medical care originating in Japan, etc.

**Management**

In order to accomplish missions to society requires, the following steps need to be taken:
1) Establishment of governance,
2) Design/implementation of long- and mid-term financial plans,
3) Enhancement of hiring supported by own funding,
4) Growth of the Database Center of the National University Hospitals,
5) Reinforcement of the secretariat functions, etc.

**Dentistry**

In order to provide quality dentistry services, the following steps need to be taken:
1) Nurturing of general dentists and development of dental care professionals,
2) Reinforcement of the cooperation between medicine and dentistry,
3) Further enhancement of the cooperation of community dental services including disaster response,
4) Establishment of a globalization network,
5) Establishment of a research network, etc.

The Ministry of Education, Culture, Sports, Science and Technology has commenced the task of “Redefining the Mission,” to reexamine the future position of the universities.

The Action Plan 2013 has been designed to implement the 33 points relating to medicine and the 11 points relating to dentistry. In addition to the three missions of education, research, and medical care, which have been typically fulfilled by national university hospitals, four new mission categories were included, namely: (1) contribution to community medicine, including ongoing physician deployment for the Great East Japan Earthquake; (2) globalization, which aims to effectively provide quality advanced medical care to the world; (3) addressing the operational issues in expediting innovation after the incorporation of universities; and (4) streamlining the missions of
dentistry towards enhanced cooperation between medicine and dentistry.

Although many public organizations release various proposals to the public as a social responsibility to ensure accountability, in some cases no clear processes are presented in such proposals.

We are making steady efforts in expediting self-reformation in order to implement the proposals we have designed, including development of a network among university hospitals.

This Action Plan 2013 constitutes the beginning of the implementation of the proposals, incorporating input from over 140 physicians and back office personnel who are active in the frontlines of university hospitals, as well as nurses and medical staff from various organizations.

We start by facilitating self-reformation and by presenting our attitude towards implementation of the new missions to society, so that we can make further contributions to society, and—as we hope—gain acceptance and support from the nation and the related institutions.
## Education

| Proposal 1: | Reformation of the pre-graduation education/national examination for medical practitioners |
| Proposal 2: | Establishment of a clinical training system for physicians, based on regional characteristics |
| Proposal 3: | Improvement in the accreditation system for specialist physicians |
| Proposal 4: | Presentation of career courses utilizing a network |
| Proposal 5: | Establishment of a Career Building Support Center (tentative name) |
| Proposal 6: | Establishment of a Comprehensive Clinical Education Center (tentative name) |
| Proposal 7: | Close collaboration with postgraduate education |
| Proposal 8: | Establishment of a system to support physicians, etc. in reemployment/returning to their former work |

### Related to Proposal 1

**Establishment of an Advanced Objective Structured Clinical Examination (OSCE)**

An Advanced OSCE system will be established to perform proper and objective assessment of pre-graduation skill learning.

Objectivity and reliability will be ensured by sharing scenarios and know-how accumulated by the national university hospitals that are already implementing the Advanced OSCE, and by standardizing the assessment methods so that common scenarios can be developed.

We are going to implement the Advanced OSCE system among universities nationwide in an interactive manner, thereby ensuring transparency and efficiency.

*OSCE is an objective clinical capabilities test that is conducted before students proceed to clinical training. The Advanced OSCE is a comprehensive final test to assess whether the individual is fully equipped with the clinical competence required to work as a physician after clinical training.*

### Related to Proposal 1

**Improvement of the Learning Environment for Students and Residents**

**Placement of a post in charge of education (an organization and its personnel to manage education full-time)**

The current educational system is inefficient, places too much onus on the instructors, and uses an educational method that relies on individual aspiration. We are going to build an educational system that resolves these issues and enhances the impact of education on practice.
In order to introduce peer teaching into the educational system, we will strive to build an organization that provides full-time educational management, and will secure personnel. In this peer teaching system, junior residents are placed above students, and educational personnel are placed above the junior residents, so that individuals are taught by mentors of relatively close standing.

**Concept of the Educational Personnel**

- **Medical director in charge of education**
- **Assistant professor in charge of education**
- **Institutionalization of instructors in charge of education**

**Goal for training**

“To teach the juniors.”

**Revision of the model core curriculum**

“To learn how to teach.”

**Related to Proposal 2, Proposal 6**

**Consolidation of an Educational System Utilizing Simulation**

The importance of education and training in skills to ensure successful implementation of participative clinical training is growing each year. Without educational simulation, it is not possible to impart safe education in the field of medical care. Therefore, to convert the national university hospitals into hubs for the use of educational simulations, we are going to organize an educational system with improved skills training and disseminate education in local communities.

**Related to Proposal 5, Proposal 8**

**Establishment of a Career Building Support Center (tentative name)**

Given the uneven distribution of physicians and medical departments by regions, decreased opportunities for lifelong learning, and other such factors, it is increasingly difficult for individual physicians to foresee career-building opportunities. Accordingly, national university hospitals, which undertake the fulfillment of the missions related to education, research, medical care, community medicine, and globalization, will form an inter-hospital network. In addition, they will cooperate with local medical institutions, medical associations, and other such bodies, to establish a system to support physicians’ career building.
Medical Care

Proposal 1: Clarification of the quality of medical care (quality indicator)
Proposal 2: Consolidation of organizational frameworks
Proposal 3: Deregulation of advanced medical care
Proposal 4: Implementation of assuring, safe, and high-quality medical care
Proposal 5: Sharing medical care information

Related to Proposal 1, Proposal 4, Proposal 5
Establishment, Disclosure and Sharing of Indicators of Quality of Medical Care (Quality Indicator, QI)

The quality indicator (QI) created for assessing national university hospitals is termed the “Hospital Function Indicator.” This tool includes 54 indices, and it has been made public by the National University Hospital Council of Japan.

While utilizing the QI for examinations and feedback, we will continue to review the indices to ensure that they always reflect the missions of the national university hospitals.

Related to Proposal 2, Proposal 4
Consolidation/Enhancement of Organizational Frameworks

The National University Hospital Council of Japan has established conferences for “Medical Safety Management” and “Infection Prevention and Control”. It has also implementing mutual checking among university hospitals in order to reinforce the administration system. We will continue to make efforts to strengthen these functions.

Additionally, from this fiscal year onwards, we will implement mutual visits among university hospitals to address measures for coping with disasters.

Consolidation and enhancement will also be ensured on frameworks for education, research, medical ethics, regulatory science*, and clerical organization.

*A scientific discipline that makes evidence-based, accurate predictions, assessment, and judgments in order to give back the benefits of technologies to individuals and society, and arrange such benefits in the most desirable form for the harmonization of individuals and society.
Since many incurable diseases are rare, it is difficult to perform large-scale clinical studies for these diseases. Therefore, we are going to request deregulation, whereby hubs for the treatment of incurable diseases are designated as special institutional precincts (special university precincts), so that cases of rare diseases can be accumulated, and the procedures for approval of clinical studies and new drugs for incurable diseases will be accelerated.
Research

Proposal 1: Improvement of an environment where physicians can engage in research and development
Proposal 2: Establishment of an incentive system to promote a research-oriented mindset
Proposal 3: Building an inter-hospital network and clarification of role assignment
Proposal 4: Securing steady research funding
Proposal 5: Reinforcement of functions to dispatch information across the country and society

Related to Proposal 3

Nationwide Expansion of Clinical Research

In cooperation with the translational research bases, early-stage/exploratory clinical study bases, and clinical research core bases that have already been established as research core and local networks, we will expedite clinical research nationwide, while invigorating the research undertaken at national university hospitals as a whole.

A “Clinical Research Promotion Initiative” will be established under the National University Hospital Council of Japan to ensure steady and continued enhancement of clinical research over an extended period.

Imports of pharmaceuticals have exceeded exports

In FY2010, imports exceeded exports by 1,150 billion yen

Source: “Issues in Developing Japan Originating Pharmaceuticals” by Yusuke Nakamura
In order to support high-level clinical research in Japan, we will expedite the improvement of the system for encouraging young physicians with a research-oriented mindset and developing personnel who support clinical research.

Establishment of an Inter-Hospital Network and Clarification of Role Assignment

A Steering Committee and the Executive Office are placed within the Council, with the Clinical Research Promotion Initiative serving as a consultative body.

Standardization of Ethics Committees, Informed Consent Forms, and Protocols within the network

Exploratory clinical study bases, translational research bases, clinical research core hospitals, etc., which have been established by existing undertakings.

National University Hospital Council of Japan

Executive Office

Clinical research coordinators

Medical staff

Biostatistics specialists

Data management specialists

Research administrators (University Research Administrator, URA)

Building an alliance among national universities (Clinical research enhancement center)

Development of human resources who support clinical research (Nurture clinical research backup staff and achieve continued employment)

National University Hospital Network

Liaising for clinical research enhancement
Placement of full-time instructors/specialists

Cooperation
Contribution to Local Communities /Society

Proposal 1: Establishment of a system to provide community medicine based on a long-term perspective
Proposal 2: Consolidation of a system to provide medical care utilizing medical Information and Communication Technology (ICT)
Proposal 3: Active participation in the issues related to medical care in the community
Proposal 4: Contribution to designing of a scheme that leads to the invigoration of local communities

Related to Proposal 1
Foundation of a Supporting/Coordinating Division which Controls Affairs Related to Community Medicine

In order to enhance community medicine, in cooperation with administrative bodies, related hospitals and medical associations, we are going to consider establishing a supporting/coordinating division that governs the diverse affairs related to community medicine.

To implement such an undertaking, we will grasp the current situation of medical collaboration, such as between hospitals or between hospitals and regional clinics.

Concept of a Supporting/Coordinating Division that Governs Affairs Related to Community Medicine.

Community Medicine Coordination Division (Tentative)
Establishment of a Network for Disaster Medicine

The national university hospitals will actively participate in risk management during large-scale disasters.

We will form a functional disaster response team that will coordinate community medicine, covering initial action to the sub-acute phase, and establish a system to manage subsequent mid/long-term medical assistance activity.

Towards realization of the above, the medical assistance systems that the university hospitals set up during the Great East Japan earthquake will be reviewed, and an investigation will be conducted to understand the actual situation of disaster countermeasures at university hospitals within the framework of the current medical program. Additionally, led by the Disaster Control Working Group of the National University Hospital Council, the national university hospitals will conduct visits to one another’s facilities to collaborate on disaster countermeasures.

The 193 medical assistance teams present in the acute phase have been reduced to less than half that number in the sub-acute phase. Thus, a system to manage disaster medicine consistently from the time of initial action is required.

Deployment of Emergency Medical Assistance Teams over Mid/Long-term Changes in the Number of Medical Assistance Teams.

Source: "Review Meeting regarding How Disaster Medicine Ought to Be", Ministry of Health, Labour and Welfare
Globalization

Proposal 1: Establishment of world-leading medical care systems
Proposal 2: Development of globally minded human resources and enhancement of international personnel exchange
Proposal 3: Establishment of a global medical information communication center
Proposal 4: Strengthening global competitiveness in highly advanced medical care

Related to Proposal 1

Nationwide Expansion of the Telemedical Education Network

To establish a global medical network with the leading medical hubs in the world and design an attractive telemedical education program utilizing ICT, we are going to introduce model instances in which the telemedical education network system is utilized on a trial basis and subsequently expand such instances nationwide. This will lead to the development of a practical scheme that includes installation of improved equipment and facilities, and the development of engineers.

Live Surgery Performed between Japan and South Korea over a Network
The Telemedicine Development Center of Kyushu University Hospital is linked with 221 facilities in 34 countries through a network utilizing academic network technologies, and the number of connected areas is increasing every year.

**Related to Proposal 2**

**Continued Personnel Exchange through Global Mutual Visits, Organization of Interdisciplinary Seminars, etc.**

We will build a system to enhance the global telem edical education program and establish a basis for international mutual visits of young medical professionals and continued personnel exchange by holding interdisciplinary seminars and subcommittee meetings in the medical and engineering fields on a regular basis.

We will examine a scheme whereby physicians invited from overseas can provide education and personnel training, and make requests to revise the various regulations that impede this scheme.
Management

Proposal 1: Establishment of governance through national university hospitals
Proposal 2: Establishment of a system that enables formulation/implementation of mid/long-term financial plans
Proposal 3: Improvement of work conditions of the hospital personnel and standardization of their management
Proposal 4: Establishment of a new model of personnel/labor affairs for the personnel involved in medical care
Proposal 5: Enhancement of networking among national university hospitals
Proposal 6: Enhancement and expansion of the Database Center of National University Hospitals.
Proposal 7: Reinforcement and augmentation of the Office of the National University Hospital Council of Japan

Related to Proposal 1, Proposal 2, Proposal 5, Proposal 6, Proposal 7
Sharing of Information Related to Hospital Management

Although certain common fundamental problems have been observed, the operational issues of national university hospitals vary extensively depending on the systems of the respective national universities.

Therefore, we will collect specific instances and issues related to governance of the hospital executives, financial challenges, personnel/labor issues, and other such issues observed at each university hospital and share this information to facilitate the solution of the issues.

Many common operational issues have been observed in national university hospitals.

Issues on Which the Various Systems in the Mid-Term Objectives/Plan of the First Period Had the Greatest Impact

Source: Collection of basic materials on national university corporations
Establishment of a New Model of Personnel/Labor Affairs

It is crucial to secure a stable supply of excellent human resources in order to maintain and strengthen the functions of the national university hospitals.

Accordingly, we will strive to build a scheme such as the unified employment of hired-by-hospital employees and taken-over employees* and establish a new personnel/labor system that facilitates career paths such that all medical professionals can fully demonstrate their expertise.

*Employees who initially served as national public servants but who were taken over during a hospital’s conversion to a corporation, or employees who were hired within the quota for taken-over employees.
Dentistry

Proposals:

**Proposal 1**: Implementation of more practical pre-graduation clinical education for the students of the school of dentistry/school of medicine

**Proposal 2**: Establishment of a system to nurture general dentists with high expertise

**Proposal 3**: Active participation in education for inter-professional collaboration in the community medical system

**Proposal 4**: Nurturing dental care professionals who can meet the individual and societal needs of advanced dental care

**Dental Treatment**

**Proposal 1**: Establishment of a new dental care/treatment system in Japan

**Proposal 2**: Reinforcement of interdisciplinary team care and cooperation between medicine and dentistry in communities, and re-establishment of a hospital dental service

**Research**

**Proposal 1**: Expedite formation of an inter-university network to establish a research implementation system

**Contribution to Local Communities/Society**

**Proposal 1**: Further enhancement of medical collaboration in community dental care

**Proposal 2**: Raising public awareness related to the importance of dental health activity at the time of large-scale disasters, and proactive participation in the local systems of disaster medicine

**Globalization**

**Proposal 1**: To establish reference hospitals in overseas countries, with which a network can be built to organize a collaborative system of dental care

**Proposal 2**: Mutual exchange of overseas dental care technologies and establishment of an educational system

Related to (Education) Proposal 1, (Dental Care) Proposal 2, (Research) Proposal 1, (Contribution to the Local Communities/Society) Proposals 1 and 2, (Globalization) Proposals 1 and 2

**While maintaining the identity of the dentistry profession, we will strengthen medicine–dentistry cooperation in team care as well as in education, dental care, contribution to communities, research, and globalization.**

We will ensure that cooperation with various medical departments involved in oral care and eating/swallowing will be enhanced.
Because many common issues have been observed in dentistry and medicine, particularly regarding medical cooperation in community medicine, active participation in the system of disaster medicine during large-scale disasters, translational research, establishment of a global network, etc., we will strengthen medicine–dentistry collaboration, thereby expediting realization of our future vision.

We request that further assessment of “medicine–dentistry collaboration” be made with respect to medical fees.

The “Survey of the oral hygiene condition and intraoral environment of the disaster victims of the Great East Japan Earthquake” showed that 97% of the disaster victims required immediate professional oral care.

Survey of the oral hygiene condition and intraoral environment of the disaster victims of the Great East Japan Earthquake.

Disaster victims who experienced certain impairments with teeth or in the mouth. 48%
Disaster victims who knew that unsanitary oral condition will lead to pneumonia and may result in pyrexia/death in severe cases. 16%
Disaster victims who required immediate professional oral care. 97%
Disaster victims who required immediate dental treatment. 60%

Tomoko Kawano, Hitomi Murai, Kanenori Kadoi, Takamichi Yanagisawa
Investigation and Report of Oral Condition and Oral Environment for Victims in the Great East Japan Earthquake
Excerpted from The Journal of Japan Society for Dental Hygiene (JJSDH) Vol.7(2),58-63, 2013
Issues to Examine for the Future

Education

In cooperation with the Council of Head of National Medical Schools of Japan and the Association of Japanese Medical Colleges, we will ensure that the outcome at the time of graduation and the outcome at the end of the training will be consistent. To this effect, we will set pre- and post-graduation goals.

With an aim to develop educators, we will implement Faculty Development (FD: an organizational effort to enable instructors to enhance and improve the contents/methodology of their sessions) whose principles will be consistent before and after graduation.

Training programs will be developed to aid in career building for graduates who were enrolled by the area admission quota with a view to establishing a coaching system for them.

Foundation of a comprehensive clinical education center where inter-professional education is provided.

Establishment of appropriate postgraduate education and specialist physician systems.

Establishment of a system to support re-education and reemployment/return to the former work/post, which will in turn prevent resignation.

*Description of the photograph*

Conduct clinical training at national university hospitals!!

Excellent coaching personnel on hand!

It goes without saying that a great number of physicians are affiliated with national university hospitals. They offer an environment where you can receive coaching anytime, anywhere.

Besides, the fact that there are many other peer junior residents, as well as attending physicians, who work together during the same period is a great advantage in forming a personal network for continued career building as a physician, over decades to come.
**Medical Care**

Handling of global benchmarking (an approach to improve oneself by comparison with other hospitals of excellence) for enhancement of the quality of medical care.

Given that novel treatment methods are being introduced consistently, we will establish a center that will serve as a nucleus for the introduction of such methods, and organize cross-divisional and virtual medical care teams, thereby assuring safe and high-quality medical care focusing on the patients.

We will examine what types of data the national university hospitals should share among themselves, and classify and organize such data.

**Research**

Enhancement/reinforcement of the system to expedite continual undertakings (e.g., securing personnel and funding, development of specialists).

Establishment of a research system in which medical staff other than physicians can also participate.

**Contribution to Local Communities/Society**

Consolidation of an organization/system to support community medicine, establishment of a nationwide structure, and maintaining public relations to support community medicine.

Utilization of ICT to invigorate community medicine.

Establishment of a nationwide structure involved in disaster medicine, foundation of a disaster medicine management department, structuring of disaster response teams, and cooperation with other institutions/administrative bodies.

**Globalization**

Design and implementation of a telemedical education program, and assessing and improving the program.

Design and implementation of an educational program for engineers and assessing the outcome of this program, along with continual introduction of new technologies.

Establishment of an appropriate system for English teaching and international exchange.

**Management**

Realization of stable operation of national university hospitals directly guided by top management
(led by the hospital director).

Ensuring public aid for facility enhancement, including necessary redevelopment that allows national university hospitals to function optimally, and conducting simulations of system reform that enable appropriated surplus to be carried forward to the following fiscal year within the framework of the mid-term plan/objectives.

**Dentistry**

Establishment of a General Dentistry Education Center (tentative name) where dentists and dental care professionals receive education.

Reinforcement of medicine–dentistry cooperation, establishment of general dental care, and establishment of a new dental care/treatment system.

Establishment of a research center for epidemiology and statistics, a validation center of dental equipment/instruments, a translational research (TR) enhancement center, and a solid research implementation system.

Establishment of dental outpatient departments for high-risk patients, advanced/specialized dental outpatient departments, and an oromandibular functions reconstruction center, and improvement of facilities that enable cooperation of multidisciplinary personnel, including physicians of other departments.

Establishment of a dental health system in case of disasters.

**Development of a Method for the Formation of Hydroxyapatite Thick Film**

![Image of hydroxyapatite formation](image)

- Development of a method for the formation of hydroxyapatite thick film.

<Description of the photograph>

A photograph showing the formation of the hydroxyapatite (HA) thick film, which is under development at the Tohoku University School of Dentistry, captured by a scanning microscope. The part described as “enamel” in the photo is the enamel on a tooth surface, which is splendidly coated with HA, as if wearing a bulletproof jacket. As the unit of the microscope is one millionth of a millimeter, the thickness of the film is approximately 10 microns, that is, one hundredth of a millimeter.