Health and Global Policy Institute Healthcare DX Project
Reinforcing Public Trust in the Health System through Healthcare DX
Expert Panel Meeting Discussion Points

Background

Health and Global Policy Institute (HGPI) Healthcare DX Project set up an expert panel of people with knowledge in the field to discuss the role that healthcare DX should play in building a sustainable and reliable health care system and held two private expert panel meetings. During the meetings, the panel discussed the vision and goals to be achieved in medical DX policy, the related challenges and barriers to date, and concrete measures to overcome these by drawing on lessons learned from the past. During the discussion, the opinion was raised that it is necessary to define and share with the public in concrete terms what healthcare DX aims to achieve. For this reason, this discussion paper first sets out a vision of what healthcare DX aims to achieve and then describes specific targets for achieving this vision. In addition, in order to give a concrete image of healthcare DX, examples of citizens' and citizens' experiences of healthcare DX are given provided. Finally, the issues to be resolved and concrete measures to achieve the goal of realising the healthcare DX experience were organized from the perspective of the stakeholders involved.

Vision

"We aim for a healthcare DX where the increasing use of personal data in society will benefit individuals and the population as a whole."

In healthcare DX, the digitization of society is the foundation, and the greatest strength is that all information can be converted into electronic data and shared via the cloud. In order to utilise these strengths in the healthcare sector, it is first necessary to develop an environment for the collection of citizen and patient health and medical data. However, in order to promote the accumulation of data on the basis of sharing, it is assumed that safety is guaranteed because public cooperation will not be forthcoming unless there is a benefit in terms of a perceived improvement in convenience in the individual's lived experience. In addition to public benefits as currently articulated, it is also important to articulate initiatives that enable individuals to directly experience benefits in their own healthcare behavior, and it is desirable to aim for a healthcare DX that benefits both the individual and the public.

[Three goals for achieving the vision]

Goal 1: Facilitate citizens' proactive self-determination on health issues

The consolidation of personal health and medical data through healthcare DX will enable citizens and patients to check their own health and medical data at anytime, anywhere. The use of AI technology will enable not only the proactive selection of solutions to one's own health challenges, but also the visualization and selection of a personalized patient journey.

Goal 2: Establish a sustainable healthcare system in which every citizen and patient can enjoy the benefits and be satisfied

In a healthcare system made possible by healthcare DX, services that are acceptable to a greater number of citizens are concretely presented and multifaceted efforts are made to realize them.

Goal 3: Realization of a data utilization system that promotes innovation and ensures appropriate responses to issues such as discrimination

It is important to further innovation through the use of health and medical data in combination with the improvement of the world through the use of data and appropriate responses to issues that may arise from the release of such data (e.g. unfair discrimination and other uses which are detrimental to the person concerned).

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[Cases of lifestyle changes made possible by healthcare DX]

The following are examples of specific cases of citizen/patient healthcare experiences that are likely to change as a result of achieving the above goals.

Case 1: Improved access to healthcare and quality and efficiency of medical care

- Medical consultation systems that utilize digital technologies, such as online medical care, enable consultation behavior that is adapted to diversifying lifestyles.
- Medical care will be available regardless of location, overcoming geographical disparities in medical care and the shortage of specialists.
- The quality of medical care will be visualized based on accumulated and shared medical data, enabling citizens and patients to proactively select and evaluate medical institutions.
- The accumulation and sharing of treatment data enables healthcare providers to provide healthcare based on the same evidence, regardless of affiliation or location.
- Linking treatment data enables the visualization of waste in healthcare and the promotion of efficiency.

Case 2: Visualization of the patient journey to realize patient-centered treatment selection with a view to the future

- Data accumulated from the health check-up stage facilitates early detection of illness and a picture of treatment and prognosis. Furthermore, it enables an early outlook on life with a disease, without relying on knowledge of healthcare that varies from individual to individual.
- Accumulated medical data and its sharing will provide criteria in treatment selection and simplify second opinions.
- AI technology facilitates individual customization of treatment and prognosis under conditions specified by the individual.

Case 3: Crisis management and immediate response to public health risks

- The accumulation and sharing of a wide range of data enables crisis management and response to public health crises such as disasters and infectious disease pandemics that better reflect the characteristics of citizens and local conditions.
- The immediate sharing of morbidity data and other information will speed up the acquisition of information on "unknown" diseases and the clarification of diseases, enabling effective countermeasures to be considered at an early stage.

Case 4: Simplification of procedures at the time-of-service transition by linking and interlinking various services

- Data sharing through the use of My Number goes beyond the healthcare sector and enables linkage with welfare and other fields related to the promotion of the health of individuals. It makes possible the improvement in efficiency of various services centered on individuals, leading to simplification and immediate enjoyment of services.
- The centralization of personal data will enable the consolidation of Japan's vertically segmented administrative services, simplifying the issuance of documents and reducing unnecessary payments, such as elimination of various processing fees.

[Key points to be addressed by each stakeholder to achieve the above goals]

Stakeholders related to healthcare DX should resolve the issues as addressed below in order to achieve the stated goals and realize the example cases. The issues and measures to be addressed are described below.

<Points in national policy>

- The digital infrastructure that forms the basis of medical DX should be built by the government to enable

constant and cyclical evaluation and improvement. This should be based on the characteristics of information systems, where improvements are discovered and accuracy is improved while using the system.

- o Evaluations should be based on the assumption of risks such as human error and mechanical error, and their reliability should be ensured by a data driven evaluation of risks and benefits. An auditing system by various experts should be introduced.
- o Improvements should clearly state the risks identified by the assessment and any errors that have occurred. Addressing issues that arise should also involve experts, along with immediate updates in line with a logical system.

- In healthcare DX, where diverse stakeholders are involved, it is difficult for current policies and organizations to handle cross-cutting digital infrastructures and legal policies. Thus, a flexible response by organizations that can connect relevant parts in a centralized manner is desirable so that issues can be considered in a connected manner.
- In order to enable citizens and patients to take the initiative in tackling healthcare DX in a positive manner, careful explanations of the future benefits of healthcare DX in collaboration with the media are required.
- The reformation of the current hospital management system, which varies in size and management body, can be considered in order to make healthcare DX pervasive.

<Points in the legislature>

- In response to the current situation where citizens and patients do not have a sufficient understanding of the promotion of healthcare DX, it is expected that a comprehensive roadmap and policy should be formed to build consensus, and that legislation should be developed to promote the primary use of medical information and secondary use, including administrative use.
- One issue that could arise from the release of personal data for the development of medical science is the possible use to the detriment of the person concerned, such as unfair discrimination. It is desirable to specify specific measures to deal with these issues appropriately.

<Points in the media>

- In order to gain the understanding of citizens and patients, it is important for the media (especially TV media) to hold comprehensive information sessions on the merits, demerits and countermeasures of healthcare DX, including the use of 'My Number', and to continue providing unbiased information to the public.
- As different generations and affiliations tend to acquire information through different channels, it is advisable to use a variety of media and approaches to gain public support.

<Points in the private sector>

- When developing new services using healthcare DX, it is important to consider that citizens and patients receiving these services also receive other services, and to proceed in consideration of compatibility and coordination with other services.
- The development of individualized, user-friendly health applications and medical devices can be anticipated. System follow-up, such as how to deal with alerts, taking into account suitability, continuity and price should also be considered.

<Points in academia>

- It is expected that opportunities to learn about healthcare DX be provided in medical care-related undergraduate education, and that policy, the field and education should proceed simultaneously with the

development of the medical DX system.

- In order to consistently evaluate and improve healthcare DX, it is desirable to involved interdisciplinary perspectives and exchanges with other academic fields on a regular basis, and to develop a multilateral research base and basis for considering responses.

<Points in the medical field>

- It is desirable to break away from the current hospital management system, which differs in size and management body, and actively participate in healthcare DX with an awareness of horizontal linkages.
  - Hospitals operating under insurance are expected to assist national policies and reform hospitals with the aim of creating a healthcare system enabled by healthcare DX.
- To correct the chronic shortage of healthcare professionals and address regional disparities, citizens should participate in the sharing of accumulated medical data and disclose the state of utilization of medical data in a form that is accessible by the public.

<Points for citizens and patients>

- It is important for citizens and patients to understand the characteristics of digital technology, which can be used and improved at the same time, and to have a supportive attitude towards the promotion of medical DX.
- In view of the fact that the current medical care has been highly developed through the accumulation of past medical records, it is important to be aware that medical information is not only for individuals but also the common property of mankind and the nation, and to actively participate in the promotion of the use of information.

Regarding the independent nature of these recommendations
These policy recommendations are based on discussions at meetings HGPI held for this project and has been compiled in HGPI's capacity as an independent health policy think-tank. It does not, in any capacity, represent the opinions of any participating expert, speaker, related party, or organization to which those parties are affiliated.

Members (titles omitted; in no particular order)
[Expert Panel Members]

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- **Jun Sasaki** (Chief Executive Officer and Director at Yushoukai Medical Corporation)
- **Naomi Sakurai** (CEO, Cancer Solutions)
- **Mamoru Ichikawa** (President, General Incorporated Association of Medical Journalism, Japan)
- **Takafumi Ochiai** (Head of Policy Research Institution, Senior Partner (Affiliated with the Daini Tokyo Bar Association), Atsumi & Sakai)
- **Yoichiro Itakura** (Lawyer, Hikari Sogoh Law Offices)
- **Tomohiro Kuroda** (CIO, University Hospital, Director, Center of Digital Transformation of Healthcare/ Professor, Graduate School of Medicine・Graduate School of Informatics Kyoto University)

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