

Thinking about Japan's future public health policy from data-driven reforms and social security reforms

Abstract

This study examines what should be promoted in future public health policies from the perspective of "social security reform / data-driven reform" that we are promoting. The new Society 5.0, which Japan is aiming for in the future, is a human-centered society that achieves both economic development and resolution of social issues through a system that highly integrates cyber space (virtual space) and physical space (real space). The field of disability health, where data is overwhelmingly scarce, is an international subject of public health. The WHO Secretariat should play a role as a member state in the "report of the highest health standards reachable by persons with disabilities" required by the end of 2022. We propose to contribute to the enhancement of the social security system with the aim of becoming a "health data system in a value co-creation type community symbiotic society" through a health monitoring system and PHR that utilize mobile devices, by further promoting social security reform by transforming into the latest data-driven organization.

Keywords: data-driven reform, social security reform, mobile device, Society 5.0

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Introduction

In recent years, the burden of illness in the world has changed dramatically, and many people have lived longer with health problems such as sequelae and disabilities of various injuries and illnesses. Looking at the situation of persons with disabilities, the Cabinet Office estimates that approximately 7.6% of the population has some kind of disability. With the aging of the population, the total number of people with disabilities and the number of people with disabilities at home or out of the office are increasing year by year. Japan is referred to as the "model of the UHC world" for access to medical care. However, Japan, which is said to be the world's top-level super-aging society is required to promote a sustainable social security system.

On the other hand, natural disasters are becoming more severe and frequent, and local governments are required to secure an operation and support system based on plans. In Japan, we have participated in the Health Security Initiative since its inception and made international contributions and have promoted the strengthening of health crisis management functions through a domestic system targeting all hazards. In other words, it can be said that Japan has prepared a social preparation system for various health risks "by type".

Under such circumstances, about two years have already passed since the pandemic of the new coronavirus infection (COVID-19) spread. In Society 4.0 (information society) so far, the pandemic of COVID-19 is more than a health crisis. The United Nations points out that it is an economic crisis, a humanitarian crisis, a security crisis, and a human rights crisis. The crisis has highlighted serious vulnerabilities and inequality in a wide area. Getting out of this crisis requires a society-wide, government-wide, and world-wide approach driven by compassion and solidarity.

Then, what is the "social mechanism for zero-base preparation" against these various public health threats? In this paper, I would like to consider what should be promoted NEXT in the future public health policy by explaining the "social security reform / data-driven reform" in parallel.

Trends in data-driven reform

United States

In the United States, the Executive Order (2021-1-21) on ensuring data-driven responses to COVID-19 and future public health threats has been published. The Executive Order is a legislation issued by the President of the United States to the United States federal government and the United States Armed Forces without the approval of the United States Parliament. The executive order, entitled "Response to COVID-19 and Serious Public Health Threats in the Future," sets out the policies of the Biden administration. The content is "to respond to the COVID-19 pandemic through an effective approach guided by the best available science and data, including rebuilding a better public health infrastructure."

WHO

WHO has announced "In Focus: 2021. -Data, analytics & delivery for impact-" to further drive the transformation into a modern data-driven organization made possible by Impact's data, analytics and distribution departments. Establish data governance and standards, monitor population health trends, strengthen national capacity, leverage partnerships to collect, analyze and use data to meet WHO's 3 billion goals and be health-related sustainable. The focus is on accelerating progress towards development goals.

Japan

In Japan, the authors have shown the need for a "re-evaluation" of reassessing diseases that can cause sequelae and acquired disorders from the perspective of disability health and welfare measures, their long-term prognosis / outcome. This is because those data are overwhelmingly lacking. In terms of domestic policy, the Future Investment Strategy (Cabinet Office) has been promoted nationwide in 2017 as a reform toward the realization of Society 5.0. Society 5.0 is a concept following the hunting society (Society 1.0), agricultural society (Society 2.0), industrial society (Society 3.0), and information

society (Society 4.0). The digitization of health-related data is linked to the health, medical, and care databases (DB) which has been built in the form of EHR (Electronic Health Record) and PHR (Personal Health Record).

At the timing after the COVID-19 pandemic, the Digital Agency was established in 2021 as a command tower for the formation of a digital society. It is said that future-oriented DX (digital transformation) will be promoted with the aim of creating a digital society that realizes the diverse happiness of each individual. At that time, in order to maintain and improve the quality of administrative services, it will be necessary to “visualize” and evaluate by solving data portability issues. To ensure sustainability, we should further accelerate the transformation of the latest data into a driven organization.

Issues of social security reform

Population trends and sustainability

Japan's “integrated reform of social security and tax” aimed at enhancing and stabilizing social security, securing stable financial resources for that purpose, and achieving fiscal consolidation at the same time. In addition, as “social security and work style reform”, all generations were examined against the background of the recent “declining birthrate, aging population, and declining population”. With the aim of creating a society in which all citizens can play an active role for a longer period of time, studies have been carried out with “ensuring the sustainability of social security” as an important issue to be examined.

Changes in legal bases

In recent years, ICT (Information and Communication Technology) and AI (Artificial Intelligence) have come to be used not only as a means of assisting vulnerable people, but also as a means of supporting “activity for independence / autonomy”. Therefore, WHO member countries are required to collect and analyze data even in the field of disability, which is one of the fields with the least scientific data in the field of social welfare... From a legal point of view, Kikuchi describes such a dramatic change in social conditions as “the constitutional text that should focus on measures has changed.” In other words, in the Constitution of Japan, the emphasis of the constitutional text, which is the basis of social security and public health policies, has shifted from Article 25, “Right to Life Guarantee,” to Article 13, “Right to Pursue Happiness.”

Community symbiotic society

In Japan, the realization of a “community symbiotic society” is one of the basic concepts of a series of reforms. Based on “Japan 100 million total success plan” (June 2016) and “Toward the realization of a “community symbiotic society” (immediate reform process)” (February 2017), reforms are underway to make it concrete.

What should future public health policies promote?

The new Society 5.0, which Japan is aiming for in the future, is a human-centered society that achieves both economic development

and resolution of social issues through a system that highly integrates cyber space (virtual space) and physical space (real space). It can be said that it is a society that each and every one of us is comfortable and active, overcoming issues such as cross-disciplinary collaboration, which was difficult to adequately deal with in Society 4.0 (information society) so far.

So far, we have worked on about (1) Building a social self-management support system, (2) Building information infrastructure for re-evaluation of care measures, and (3) Redefinition of “health including well-being,” as necessary conditions for an inclusion society that coexists with the community. And we have just created the policy model necessary for each realization. With a view to information transmission / reception systems with each and every citizen, we are currently embarking on research to verify the usefulness of data utilization using mobile devices. Previous studies have already confirmed the improvement tendency of the “BP (body pain)” index in SF-12ver2 of the self-management support program in this study setting. “Pain” is important as a warning sign for the living body, but it is a multiple pathological condition common to various sequelae. Therefore, this study also focuses on “self-management of chronic pain” and further explores the possibility of utilizing mobile health data.

Internationally, disability is already a public health problem, and WHO (World Health Organization) member countries are required to collect and analyze data based on the ICF (International Classification of Functioning, Disability). WHO published “In Focus 2021” (2021/10/1) to accelerate the progress toward the achievement of SDGs Goal 3 etc. in order to realize the transformation to the latest data-driven organization. At the WHO General Assembly in May 2021, a resolution called for “in collaboration with Member States and relevant agencies, the WHO Secretariat should report the highest health standards that persons with disabilities can reach by the end of 2022.” As a top runner in a super-aging society, Japan, a member country, should seek data collection measures that can reduce the burden on patients / parties / family members.

Furthermore, the smartphone ownership rate of individuals in Japan has become widespread at 67.6% as of the 2019 Ministry of Internal Affairs and Communications survey. There is also a growing movement to manage and utilize health data by oneself with the aim of receiving services that match the individual's health condition. We believe that the results of this research will lead to the construction of a patient / party participation type data transmission / reception system that utilizes SNS and the like. We believe that this will further develop into a health monitoring system that contributes to the enhancement of the social security system as a patient / party-based “value co-creation type health data system” based on PHR (personal health record) utilizing mobile devices, etc.

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