

# The framework for modern community medicine in Japan

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**SUMMARY** Along with the transition to depopulation and an aging society in Japan, the modification of community medicine and its related systems is required. With this in mind, the Japanese government has recently advocated two major plans: 'Community Healthcare Vision' and 'Community-based Integrated Care System'. This paper proposes a theoretical framework to understand modern community medicine based on the ongoing government plans. The key viewpoints consisting of the framework are 'community and/or region', 'care systematization,' and 'coworking with residents (citizens)'. This is expected to be useful for capturing and monitoring the whole picture of modern community medicine in Japan. Such modeling might aid in the future development of medicine and medical science, as in other developed countries.

**Keywords** community health, community coalition, healthcare system, medical care, medical model

## 1. Introduction

Community medicine is a special branch of the medical science of health and disease in a defined community and/or region, often dealing with the fields of primary healthcare and healthcare delivery systems in addition to clinical practice for outpatients and inpatients (1,2). Community medicine depends on not only the progress of medical care and related technologies but also the characteristics of the respective communities and/or regions.

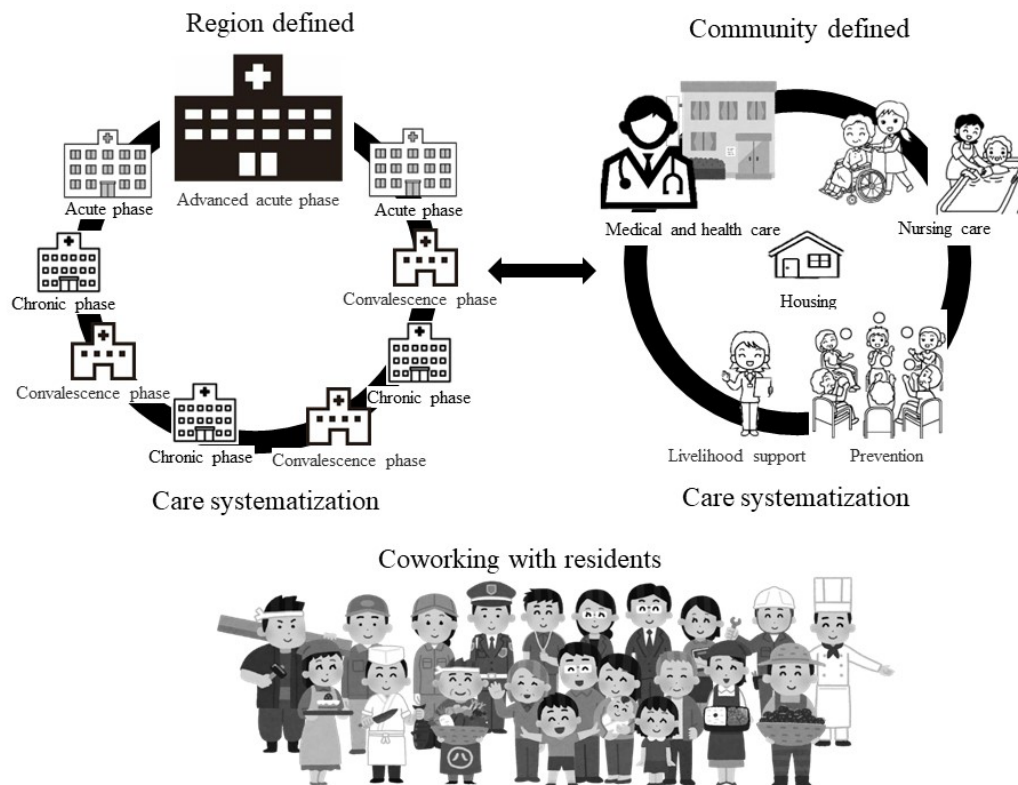
While the human lifespan has been prolonged in Japan (mean life expectancy of about 81 years for men and 87 years for women in 2017 (3)), the country has experienced depopulation (population decline from 128 million after 2008) and population aging as a super-aged society (older people accounted for over 27% of the population in 2018) (3-6). This societal transition leads that of other developed countries around the world (7).

In general, older people have chronic diseases with multiple comorbidities and have difficulties in remaining mobile in their daily life and obtaining access to medical care (7); long-term care should thus be available in their local area, ideally. Depopulation with a decline in the working-age population may also result in a shortage of human resources working in medical care facilities (8). Accordingly, these will accelerate the need to reconceptualize the notion of community medicine and to restructure its related systems.

## 2. Government plans for community medicine

Recently, the Japanese government proposed two plans to reform community medicine in the near future. The first plan is the 'Community Healthcare Vision' (6), established based on data concerning medical demands and bed numbers required, with hospital beds differentiated by the required functions (*i.e.*, advanced acute phase, acute phase, convalescence phase, and chronic phase functions) in certain regions at the prefecture level. Hospitals in Japan tend to serve the functions of an advanced acute-phase or acute-phase institution, as they were established when the population was younger than in the present day. With the increased aging of the population, hospitals could be converted to cover their functions in the convalescence or chronic phase. Such conversion should match the characteristics of a given region (*e.g.*, aging rate, hospital bed numbers), and integrative cooperation is also necessary to balance the functions among hospitals within respective regions.

The second plan is the 'Community-based Integrated Care System' (3,5). This system ensures the provision of health and medical care, nursing care, prevention, housing, and livelihood support for daily living in certain communities at the municipal level. Diverse components, such as clinics for home medical care, home-visit nursing stations, welfare-related administrative organizations, informal services, and self-help groups, will also join the system. This plan is aimed at realizing that most people live in their familiar community for a long time. Comprehensive care should be instated to improve life for everyone, particularly older individuals, and integrative cooperation between stakeholders within



**Figure 1. The framework of modern community medicine (image).** The government plans as the 'Community Healthcare Vision (left circled-figure)' and 'Community-based Integrated Care System (right circled-figure)' are involved in the framework. The key viewpoints consisting of the framework are 'community and/or region', 'care systematization', and 'coworking with residents (citizens)'.

respective communities is a must-have. Of note, it is also important to harmonize these two plans 'Community Healthcare Vision' and 'Community-based Integrated Care System' for community medicine.

### 3. Framework for modern community medicine based on the government plans

These plans are relatively new, and their developing while dealing with a wide range of issues is ongoing (3,5,6); thus, it is often difficult for people to understand the whole picture. A framework may be useful for capturing the essence of modern community medicine. Here, the author would like to propose the framework shown in Figure 1, keeping the two above-mentioned plans in mind.

First, we must define the 'community and/or region', which will make it easy to catch up the detailed characteristics (*i.e.*, population demographics, disease structures, human resources, and facilities) for the plans. Second, we must look at 'care systematization'. Following these plans, it is crucial to combine human resources and facilities fully. For instance, objective measures using big data from medical care- and long-term care-related receipts as well as evidence-based clinical indicators obtained from facilities can be utilized to assess and promote the care systematization required

in communities and/or regions (9). Both technical and non-technical approaches for the management and governance of interprofessional collaboration between resources should also be utilized (10). Third, we must focus on 'coworking with residents (general people)'. The relevance of participation, involvement, coalition, and engagement of residents living in communities and/or regions has been recognized as a factor associated with the successful penetration of community medicine policies and actions (11,12). The plans will not proceed without the partnership of residents with care professionals and administrators. For example, we recognize the importance of achieving a consensus on drastic challenges involving the functional arrangements of hospitals and working closely with medical and welfare care in cases of advanced end-of-life planning (13). Recently, a method to facilitate the sharing of information and/or intention via digital transformation using communications technology has been proposed (14,15).

### 4. Conclusions

Insights into modern community medicine can be discussed from the viewpoint of the framework, as presented here, in the context of Japan. The key viewpoints are 'community and/or region', 'care

systematization', and 'coworking with residents'. We can verify the status of community medicine in the respective communities and/or regions by considering these viewpoints. The application of the framework to community medicine may help enhance care and maintain the sustainability of care while ensuring the safety of people within communities and/or regions. The Japanese models of modern community medicine with quantitative and qualitative alterations in society might aid in the future development of medicine and medical science, as in other developed countries.

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