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Japanese strategy to COVID-19: How does it work?

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Abstract: Despite substantial inflow of infected cases at the early stage of the pandemic, as of the end of April, Japan manages the outbreak of COVID-19 without systematic breakdown of health care. This Japanese paradox – limited fatality despite loose restriction – may have multiple contributing factors, including general hygiene practice of the population, customs such as not shaking hands or hugging, lower prevalence of obesity and other risk factors. Along with these societal and epidemiological conditions, health policy options, which are characteristic to Japan, would be considered as one of the contribution factors. Some health policy factors relatively unique to Japan are described in this article.

***Keywords*:** COVID-19, Japan, social distancing, "soft-landing"

Due to geographical proximity, there has been a substantial number of inflows of people from Wuhan Province, China – epicenter of COVID-19 epidemic at the early stage of pandemic – to Japan before travel restriction was imposed to Wuhan on 23 January 2020. Total of more than 18,000 visitors arrived to Japan from Wuhan by air during 30 December 2019 to 22 January 2020 by 23 scheduled air flights per week (*1*). The prevalence of COVID-19 among Japanese evacuees from Wuhan, where 14 out of 826 tested cases were positive (1.7%) (*2*), indicates that a considerable number of infections had already existed in Japan as early as January.

Despite this substantial inflow of infected cases at the early stage of the pandemic, as of the end of April, Japan manages the outbreak of COVID-19 without systematic breakdown of health care. Moreover, this has been achieved with relatively loose restriction on social activity. So far, Japan does not impose lock down as observed in many parts of Europe and the United States (U.S.). What element of Japanese policy contributed to controlling the outbreak while avoiding tough restriction on social activity, and will it continue to work?

Basically, Japan has several difficult conditions in terms of COVID-19 control, compared to other countries. In addition to geographical proximity to Wuhan that allowed inflow of infected cases at the early stage as mentioned above, Japan's population density, with its living conditions, office environments and crowded commuting trains all contributed to the transition of the disease. Japan also has smaller number of ICU and PCR laboratory capacity per population, compared to other industrialized countries (*3*). From a policy perspective, Japan has limited political options for enforcement of lock down, which has not yet been implemented as of the end of April. In addition, as COVID-19 disproportionately affects senior populations (*4*), Japanese demographic reality – one of the most aged societies in the world – makes our response more challenging.

In spite of these preconditions, the number of reported cases of deaths due to COVID-19 remains far less than other countries (413 as of 29 April 2020). While there may be a certain number of unreported cases due to lack of proper diagnosis, this would be common in all countries, and there is no reason to suspect that underreporting in Japan is higher or systemic compared to other countries. As a result, access to healthcare for those in need, especially severe cases that requires intensive respiratory care, has not yet hampered in a systematic manner.

This Japanese paradox – limited fatality despite loose restriction – may have multiple contributing factors, including general hygiene practice of the population, customs such as not shaking hands or hugging, lower prevalence of obesity and other risk factors. Along with these societal and epidemiological conditions, health policy options which are characteristic to Japan, would be considered as one of the contribution factors. While all countries take common approaches – testing, treatment, isolation, social distancing, *etc*., – there are certain health policy factors relatively unique to Japan as described below.

Firstly, practicing conventional and basic public health measures by the local health center. By law, health centers – approximately there are 600 health centers

nationwide, or one per 200,000 population in average – are responsible for identification, contact tracing, arrangement of health care and reporting of each case (*5*). Through these steady and routine works at each community level by public health nurses and other front-line health professionals, they succeeded in identifying clusters of infections and taking measures to contain them.

Secondly, the political leaders provided a straightforward and clear message for all nationals. The message of what to do and why were repeatedly conveyed to citizens for their understanding and behavioral change. More specifically, a new terminology of "San-mitsu" – three concentration in terms of closed spaces, crowded places, and close-contact settings – was generated so as people to avoid it (*6*). The political leaders and experts joined efforts to repeat this simple message to reduce the social contacts by 80% to mitigate the spread of the epidemic.

This simple message was successfully reached to many citizens. For example, an expert who developed a projection model to offer the background of 80% reduction appeared frequently with the political leaders and he became a familiar and popular figure and even is called "80% uncle". The measurable 80% reduction in social contact has become a widely shared target across the society. By doing so, we are hopeful to achieve a similar effect of "lockdown", avoiding legal enforcement adopted by the U.S. and European nations.

Third and lastly, allocation and coordination of the optimal use of hospital beds at community level is functioning through the joint effort coordinated by local authorities. For example, the public health bureau of the Tokyo Metropolis, updates all admitted COVID-19 cases in about 300 hospitals and availability of hospital beds in daily bases, as an effort to monitor the demand and supply of hospital beds in the respective area. At the same time, 31 health centers report all newly infected cases with assessment of need and urgency of hospitalization. These enable the Tokyo Metropolis government to launch a coordination mechanism to request an appropriate hospital to take suitable patients, taking account of individual condition and location of residency, and then transportation is also arranged. Those who demonstrate no or mild symptoms and require no oxygen therapy, are accommodated in the hotels or facilities rented by the Tokyo Metropolis in order to monitor the health conditions of infected cases without putting unnecessary burden on the health care facilities. All these government efforts enable us to monitor the health condition of individual cases and to secure hospital beds and transportation services, resulting in the maximum use of potential capacity of local health and medical resources.

It was February when the outbreak of COVID-19 started and is expected to continue for at least several more months. We do need not to be complacent so as to continue to be successful in managing the epidemic and avoid the collapse of the health system. So far, by the end of April, the declaration of national emergency seems effective in reducing the trend of new reported cases. Therefore, the maintenance of above three measures and adjusting the degree of social distancing to balance the public health needs and maintenance of socioeconomic activities is critical. If we can achieve the optimal balance, Japan truly offers a best practice of "soft-landing" of handling this epidemic, with minimizing the adverse effects on society and economy.

References

1. Data derived from Flight Master, China. *https://www.businessinsider.jp/post-206403* (accessed April 28, 2020). (in Japanese)
2. Infectious Agents Surveillance Report. National Institute of Infectious Diseases. *https://www.niid.go.jp/niid/images/iasr/2020/5/483p04t03.gif* (accessed April 28, 2020). (in Japanese)
3. Prin M, Wunsch H. International comparisons of intensive care: informing outcomes and improving standards. Curr Opin Crit Care. 2012; 18:700-706.
4. Wu J Leung K, Bushman M, Kishore N, Niehus R, de Salazar PM, Cowling BJ, Lipsitch M, Leung GM. Estimating clinical severity of COVID-19 from the transmission dynamics in Wuhan, China. Nat Med. 2020; 26:506-510.
5. Katsuda N, Hinohara Y, Tomita K, Hamajima N. Structure and Roles of Public Health Centers (Hokenjo) in Japan. Nagoya J Med Sci. 2011; 73:59-68.
6. Muto K Yamamoto I, Nagasu M, Tanaka M, Wada K. Japanese citizens' behavioral changes and preparedness against COVID-19: How effective is Japan's approach of self-restraint? medRxiv. 2020; doi: https://doi.org/10.1101/2020.03.31.20048876

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