

Rethinking the Current Older-people-first Policy for COVID-19 Vaccination in Japan

Kenji Matsui¹, Yusuke Inoue², and Keiichiro Yamamoto³

¹Division of Bioethics and Healthcare Law, National Cancer Center, Tokyo, Japan

²Department of Public Policy, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan

³Office of Bioethics, The Center for Clinical Sciences, The National Center for Global Health and Medicine, Tokyo, Japan

Received June 2, 2021; accepted June 6, 2021; released online June 19, 2021

Key words: COVID-19; vaccination prioritization policy; ethics

Copyright © 2021 Kenji Matsui et al. This is an open access article distributed under the terms of Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

As of May 16, 2021, only 2.5% of Japan's 36 million older people (aged ≥ 65 years) had received at least one dose of the coronavirus disease (COVID-19) vaccine.¹ Even among the 4.8 million medical workers given first priority, the reported completion rate of the initial vaccination is 72.3%.¹ Due to this slow implementation, Japan is currently ranked 120th in vaccination rate among 206 countries/territories, the worst among the 37 Organisation for Economic Co-operation and Development member countries.² These statistics imply that, at the current pace, most healthy younger people (aged 20–59 years), who account for exactly half of the entire population and form the core labor force in Japan (around 52 million), will need to wait until at least next year to be vaccinated.

Medical workers and patients with underlying diseases aside, the older-people-first policy for COVID-19 vaccination was developed through vigorous discussion within the Committee on Vaccination Basic Policy of the Inoculation/Vaccination Working Group of the Health Science Council at the Ministry of Health, Labour and Welfare. The main reason for this prioritization was that older people were considered more vulnerable; namely, they were at higher risk of developing serious complications and death than younger people. However, in view of the changes in social circumstances discussed below, this policy should be reconsidered.

First, Japan's economy has shrunk more than expected due to the slow vaccine rollout and self-restraint in going out.³ Second, job-hunting younger people have experienced the biggest drop in job availability in 46 years.⁴ Third, there has been a significant increase in suicides, particularly among younger workers, since the beginning of the COVID-19 pandemic.⁵ Fourth, cases are surging among younger people due to the emergence of new variants, such as N501Y.^{6,7} Fifth, quite a few younger people, and younger workers in particular, have valid reasons for not being able to adhere to preventive practices, such as the need to commute to work.⁸ Sixth, Japan's birth rate, and therefore the population of the next generation which will sustain the future Japanese society, has declined significantly due to COVID-19's impact on the pregnancy rate and worsening economic condi-

tions.⁹ Seventh, regardless of age, many have suffered from 'cabin fever' due to the prolonged restrictions, such as social requests to "stay at home," for more than a year.¹⁰ Eighth, research using mathematical modeling from a Swedish group found that "the disease-induced herd immunity level may be substantially lower than the classical herd immunity level...a reduction...from 60% under homogeneous immunization down to 43%...in a structured population," if we take account of age cohorts and social activity levels—namely, assuming that younger people tend to take more risks and more frequently maintain their pre-pandemic lifestyle, such as actively contacting others, than older people.¹¹ If this model applies to Japan in its current state, only by vaccinating younger people can sufficient herd immunity be achieved.

Taken together, these factors indicate the need to rethink the older-people-first policy on vaccination prioritization in Japan, if the vaccines are safe and useful. The possibility of shifting from the current policy to an equal distribution policy which includes younger people should be explored. In fact, Indonesia prioritizes those of productive age (18–59 years) for vaccination more highly than older people.¹² Our proposed equal-opportunity-for-vaccination policy, however, does not go as far as Indonesia's. Rather, the policy must consider a healthy balance from an ethical standpoint as well. In this sense, our proposed policy can be ethically justified based on the ethical principle of equal opportunity or distributive justice.¹³ Our suggested change to the policy is to treat younger people as equally vulnerable cohorts as older people from public policy and economic perspectives.

ACKNOWLEDGEMENTS

Author contributions: KM wrote the draft of the paper. KY and YI provided analysis of ethical and political aspects of the given issues, and revised the paper. KM, KY, and YI agreed and approved the final version of the paper.

Conflicts of interest: None declared.

Funding: This work was funded by the Grant-in-Aid for Scientific Research of the Japan Society for the Promotion of Science [Kiban (A) 19H01083, and Kiban (C) 18K09992].

Address for correspondence. Kenji Matsui, Division of Bioethics and Healthcare Law, National Cancer Center, 5-1-1 Tsukiji, Chuo-ku, Tokyo 104-0045, Japan (e-mail: kematsui@ncc.go.jp).

REFERENCES

1. Nihon Keizai Shimbun. The chart-indicating present track of implementation of coronavirus vaccination in Japan. 18 May 2021. <https://vdata.nikkei.com/newsgraphics/coronavirus-japan-vaccine-status/> [Japanese]; Accessed 05.18.2021.
2. Pettersson H, Manley B, Hernandez S, McPhillips D. Tracking Covid-19 vaccinations worldwide. *CNN*, 18 May 2021. <https://edition.cnn.com/interactive/2021/health/global-covid-vaccinations/>; Accessed 05.18.2021.
3. Kihara L, Kajimoto T. Japan's economy slumps back into decline as COVID-19 hits spending. *Reuters*, 18 May 2021. <https://www.reuters.com/world/asia-pacific/japans-economy-contracts-more-than-expected-covid-19-hits-consumption-2021-05-18/>; Accessed 05.18.2021.
4. Nakamura K. In fiscal 2020 Japan saw biggest decline in job availability in 46 years. *The Japan Times*, 30 April 2021. <https://www.japantimes.co.jp/news/2021/04/30/business/economy-business/japan-job-availability/>; Accessed 05.18.2021.
5. Tanaka T, Okamoto S. Increase in suicide following an initial decline during the COVID-19 pandemic in Japan. *Nat Hum Behav.* 2021;5:229–238.
6. National Institute of Infectious Diseases. Current Situate of Infection, May 6, 2021. 13 May 2021. <https://www.niid.go.jp/niid/en/2019-ncov-e.html>; Accessed 05.18.2021.
7. Osumi M. As virus variants spread in Tokyo, fears grow of Osaka-type surge. *The Japan Times*, 4 May 2021. <https://www.japantimes.co.jp/news/2021/05/04/national/tokyo-medical-system-variants/>; Accessed 05.18.2021.
8. Okumura J. Polarized nature of the COVID-19 pandemic in Japan: associations with population age structure and behaviours. *Trop Med Health.* 2021;49(1):38.
9. Hoshino T. The COVID-19 pandemic is accelerating Japan's population decline: A statistical analysis. *nippon.com*, 25 May 2021. <https://www.nippon.com/en/in-depth/d00701/>; Accessed 05.28.2021.
10. Editorial: With 3rd COVID-19 emergency, Japan faces crucial stage in protecting lives. *The Mainichi*, 24 April 2021. <https://mainichi.jp/english/articles/20210424/p2a/00m/0op/016000c>; Accessed 05.18.2021.
11. Britton T, Ball F, Trapman P. A mathematical model reveals the influence of population heterogeneity on herd immunity to SARS-CoV-2. *Science.* 2020;369(6505):846–849.
12. Al Jazeera Media Network. Young people first: Indonesia's COVID vaccine strategy questioned. 13 January 2021. <https://www.aljazeera.com/news/2021/1/13/young-people-first-indonesias-covid-vaccine-strategy-questioned>; Accessed 05.18.2021.
13. Matsui K, Inoue Y, Yamamoto K. SARS-CoV-2 human challenge trials: rethinking the recruitment of health young adults first. *Ethics Hum Res.* 2021;43(3):37–41; Rawls J. *A Theory of Justice*. revised edition. Cambridge; Harvard University Press; 1999.