



Public health and personal freedom: the question of mask-wearing

Yudai Kaneda[^]

School of Medicine, Hokkaido University, Sapporo, Japan

Correspondence to: Yudai Kaneda, School of Medicine, Hokkaido University, Kita-ku, Kita15, Nishi7, Sapporo 0608638, Japan.

Email: nature271828@gmail.com.

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Since the beginning of 2023, the obligation to wear masks has been lifted in many regions, including Spain and Hong Kong. In Japan, the government announced that the recommendation for mask-wearing indoors would be lifted from May 8, 2023 (1). So far, the Japanese government has recommended mask-wearing. And over the 3 years of the pandemic, mask-wearing has become the norm, with reported rates of use exceeding 90% among the Japanese population. The reason for the change in measures this time was that Coronavirus Disease 2019 (COVID-19) at the current stage was considered to be similar to seasonal influenza in terms of both infectivity and severity. However, amidst the eighth wave of the COVID-19 pandemic, from autumn 2022 to January 2023, over 12,000 deaths were reported in Japan (2). Given this context, the media has repeatedly criticized the removal of masks, emphasizing the need for cautious handling. Nevertheless, considering that Western countries ended legal restrictions on mask-wearing early in 2022 and that Japan subsequently reported more infections, this situation leaves room for doubt as to whether these reports have been scientifically confirmed.

The backdrop to the media's persistent stance includes a statement titled "Scientific Findings on the Effectiveness of Mask Wearing", released by 25 experts in Japan on February 8, 2023, which asserted the existence of scientific evidence for mask-wearing (3). In this statement, they cited a meta-analysis that reported that mask-wearing reduced the risk of infection by 16%, a statistically significant difference, as the basis for their recommendation and concluded that masks should be worn (4). However, this paper analyzes 76 studies, many of which are observational, making it difficult to

distinguish whether the reduction in COVID-19 infections is due to the effect of masks or potentially attributable to other factors such as vaccination, ventilation measures, or seasonal variables (4). On the other hand, there are indeed some scholarly views that question the efficacy of wearing masks. For instance, Jefferson and colleagues reported in a meta-analysis of 11 large-scale clinical trials that infection was reduced by 5% in the mask-wearing group, but this reduction was not statistically significant (5). This research includes not only COVID-19 but also other respiratory viruses, analyzing a total of 11 randomized controlled trials, thereby reducing the likelihood of bias involvement (5). In this context, the latter is deemed to offer more significant insights that Japan should refer to in verifying the effectiveness of masks.

In addition, emerging evidence suggests that mask-wearing can even be harmful in several aspects. Scheid *et al.* have pointed out that daily and long-term use of masks may lead to headaches, shortness of breath, acne, facial itchiness, and rashes (6). In fact, Japan's Ministry of Health, Labor and Welfare has also warned that wearing masks under strong summer sunlight can increase the risk of heatstroke (7). Furthermore, it has been pointed out that the wearing of masks may hinder efficient communication and exacerbate social dysfunction and depression (8). Along with these health issues, Shen *et al.* have highlighted the potential increase in plastic waste due to the rise in both production and consumption of face masks, and the impact of improper mask disposal on environmental pollution cannot be overlooked (9). Thus, it is essential to understand and carefully interpret the various findings regarding mask policy.

Indeed, cognitive biases, including confirmation bias,

[^] ORCID: 0000-0001-8302-9439.

have been found to have the potential to affect experts more than non-experts in certain situations (10), and it is essential to be aware of this tendency. While efforts to reduce such influences are expanding in medical journals and similar venues, such measures need to be revised in media settings such as television and newspapers, which are widely viewed by the general public. Indeed, there have been instances where the sensational reporting of adverse reactions to the human papillomavirus (HPV) vaccine in the media led to the withdrawal of active endorsement for vaccination in Japan, resulting in a situation where the vaccination rate continued to be less than 1% for over 8 years (11). Particularly in Japan, where compliance with public health recommendations and voluntary measures is substantially high (12), careful attention must be paid to the potential influence of information disseminated by experts and the media in shaping people's behavior regarding mask policies, which may consequently have an impact on health.

In conclusion, to protect the health of the population, countermeasures against infectious diseases, including COVID-19, must be based on scientific evidence rather than on the subjective opinions of experts and politicians, in accordance with the international consensus. In many other countries, wearing masks was left to individual decisions, except in public facilities during outbreaks, and it is up to individuals to decide how much risk they are willing to take and how much they expect masks to help them (13). Although the generalization of mask policies is constrained by the need to consider factors such as cultural differences in mask-wearing and the implementation of other health measures across different regions, in Japan, as well, the wearing of masks should be a matter entrusted to individual discretion. Consequently, what is required of the government, experts, and media is not the imposition of their own values but rather the dissemination of accurate information and the provision of resources for informed decision-making; establishing a system of high transparency to achieve this is an urgent matter.

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References

1. Japan's Ministry of Health, Labor and Welfare. Coronavirus (COVID-19). 2023. Available online: https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000164708_00079.html
2. Kaneda Y, Ozaki A, Tanimoto T. Rethinking Japan's Infallibility Principle for a Better Pandemic Response. *Cureus* 2023;15:e39270.
3. Japan's Ministry of Health, Labor and Welfare. Scientific findings on the effectiveness of wearing masks. 2023. Available online: <https://www.mhlw.go.jp/content/10900000/001055263.pdf>
4. Li H, Yuan K, Sun YK, et al. Efficacy and practice of facemask use in general population: a systematic review and meta-analysis. *Transl Psychiatry* 2022;12:49.
5. Jefferson T, Del Mar CB, Dooley L, et al. Physical interventions to interrupt or reduce the spread of respiratory viruses. *Cochrane Database Syst Rev* 2020;11:CD006207.
6. Scheid JL, Lupien SP, Ford GS, et al. Commentary: Physiological and Psychological Impact of Face Mask Usage during the COVID-19 Pandemic. *Int J Environ Res Public Health* 2020;17:6655.
7. Japan's Ministry of Health, Labor and Welfare. About

- Heatstroke. 2022. Available online: https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/kenkou_iryuu/kenkou/nettyuu/
8. Campagne DM. The problem with communication stress from face masks. *J Affect Disord Rep* 2021;3:100069.
 9. Shen M, Zeng Z, Song B, et al. Neglected microplastics pollution in global COVID-19: Disposable surgical masks. *Sci Total Environ* 2021;790:148130.
 10. Krems JF, Zierer C. Are experts immune to cognitive bias? Dependence of "confirmation bias" on specialist knowledge. *Z Exp Angew Psychol* 1994;41:98-115.
 11. Namba M, Kaneda Y, Kawasaki C, et al. Underlying background of the current trend of increasing HPV vaccination coverage in Japan. *Global Health & Medicine* 2023;5:255-6.
 12. Kim G, Natuplag JM, Jin Lin S, et al. Balancing Public & Economic Health in Japan during the COVID-19 Pandemic: A Descriptive Analysis. *Epidemiologia (Basel)* 2022;3:199-217.
 13. Centers for Disease Control and Prevention. Understanding Risk. 2022. Available online: <https://www.cdc.gov/coronavirus/2019-ncov/your-health/understanding-risk.html>

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