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LETTER

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Increase in the number of female doctors and the challenges that Japan's medical system must face

Shotaro Kinoshita[1,2], Taishiro Kishimoto[1,*]

[1] Hills Joint Research Laboratory for Future Preventive Medicine and Wellness, Keio University School of Medicine, Tokyo, Japan;
[2] Graduate School of Interdisciplinary Information Studies, The University of Tokyo, Tokyo, Japan.

Abstract: Japan has seen an increase in female physicians recently, yet it still lags behind other Organization for Economic Cooperation and Development (OECD) countries. A major barrier has been the historical discrimination against women in medical school admissions. In recent years, female enrolment in medical schools has risen, surpassing 40% in 2024, reflecting a broader societal shift. However, structural problems persist in the Japanese healthcare system. Although the number of doctors per capita is lower in Japan than in other countries, the number of patients is higher than in other countries, leading to overwork for doctors. As a result, only about one-third of female doctors in Japan are able to return to work after interrupting their careers to give birth or raise children. The maldistribution of physicians, both regionally and by specialty, exacerbates this issue. To sustain the rising number of female physicians, Japan must reform its medical system.

***Keywords*:** healthcare system, health policy, maldistribution, physicians in Japan, female physician

Although the female physician percentage in Japan has recently reportedly increased significantly (*1*), Japan still has one of the lowest percentages among the Organization for Economic Cooperation and Development (OECD) member countries. One reason is the long-standing discrimination against women in medical school entrance examinations in Japan (*2,3*). The 2018 admissions scandal caused a stir when it was revealed that several universities had discriminated against women in their medical school admissions practices (*2,3*). Although only four universities were mentioned, the male-to-female admission ratio to date suggests that some discrimination may have occurred at many Japanese universities over the years. According to the Basic School Survey by the Ministry of Education, Culture, Sports, Science and Technology, the female student enrollment percentage in medical schools gradually rose from the low 10% range in the 1970s to > 30% in 1994 but remained in the low 30% range for about 25 years thereafter (*4*). Since the scandal made headlines in 2018, the female student percentage enrolled in Japanese medical schools has increased nationwide, exceeding 40% in 2024 (*4*). It is gratifying to observe that the glass ceiling in Japanese society is being lifted and that freedom of choice and career path possibilities for female students are being expanded. However, it is important to address why discrimination against women persisted in Japanese medicine for so long.

Japan has fewer physicians per capita than the average for developed countries, even though it has one of the highest numbers of patients per physician and hospital beds per capita (Table 1) (*5*). This distorted structure has led to the normalization of overworking among Japanese clinicians. Doctors at universities spend much of their time on clinical work, leading to less time dedicated to research yearly (*6*). In addition to these structural issues, Japan – with the world's most aged population – will become even busier as the demand for inpatient care is projected to peak by 2040 (*7*).

In certain life stages, women are expected to balance work with childbirth and childcare. However, achieving this balance within the Japanese medical system's demanding environment is difficult, and approximately 1 in three female doctors can return to work after interrupting their careers for childbirth or childcare (*2*). This practice lacks role models owing to the lack of female doctors who continue working after becoming mothers. As of June 1, 2022, the deans of medical schools and university hospitals at all 82 university medical schools in Japan were reported to be male (*8*). Instead of remedying this, the Japanese medical community – with its doctor shortage – has justified accepting men to medical schools over women. Surprisingly, even after the scandal of discrimination against women in entrance examinations, many female doctors in Japan felt that men would inevitably receive preferential treatment in medical school entrance examinations (*3*). However, the enrolment of women in medical schools has increased

Table 1. Comparison between the OECD average and Japan

Indicators	OECD Average	Japan
Estimated number of in-person consultations per doctor, 2021 (or nearest year)	1,788 (32 countries)	4,288
Hospital beds per 1, 000 population, 2021 (or nearest year)	4.3 (38 countries)	12.6
Practicing doctors per 1, 000 population, 2021 (or nearest year)	3.7 (37 countries)	2.6

Data source: OECD Health Statistics 2023 (*5*). OECD, Organization for Economic Cooperation and Development.

since the scandal, and Japan's medical system will not be able to sustain itself unless it ensures that these women can properly develop their careers and continue working.

One issue that must be addressed as the female physician numbers increase is the regional maldistribution. The growing number of female Japanese physicians is concentrated in urban areas, where working part-time while raising children is easier (*1*). This follows the recent trend of male and female physicians concentrating in urban areas. In Japan, the medical profession's popularity, owing to its stability, has led to high competition during medical school entrance examinations. This has led students to become more career-oriented and to prefer urban areas over the countryside for their career paths (*9*). Physicians from urban areas are also less inclined to work in rural areas than those from rural regions (*9*). Regarding children's education, Japanese doctors gather in areas with better-rated high schools and university medical schools (*10*). Thus, if the current admissions and medical systems remain in place, this tendency for regional maldistribution may worsen. The Japanese government has attempted to address these problems by establishing a small number of regional quotas in medical school entrance examinations that offer preferential entrance examinations and reduced or exempted tuition fees if students agree to work in certain regions after graduation (*11*). However, these regional quotas burden students, as the mandatory working period after graduation is quite long. As a result, in certain unpopular regions, the student numbers have fallen below capacity (*11*). In the future, it may be necessary to consider more natural ways to reduce competition in the general entrance examination and to re-examine the entrance examination system to make it easier for students from diverse regions to be accepted. This could be achieved, for example, by using a quota system with fewer obligations than regional quotas or by enhancing the entrance examinations themselves. Improving the rural working environments is difficult unless the structural geographic physician maldistribution is eliminated.

Another issue that must be addressed as the female physician numbers increase is the medical specialty maldistribution. Owing to the Japanese medical working environment (as described above), female doctors often choose specialties where balancing work and family life is easier (*2*). In Japan, there are few restrictions on medical school graduates' choices when specializing. Despite the overall medical school system's increased capacity over the past decade, the number of physicians in busy and resource-limited specialties such as surgery has not increased (*12*). The maldistribution of physicians by department for reasons such as work-life balance will not improve unless strong measures are implemented to secure physicians in each department and drastic reforms are made to improve the working environment for all medical personnel.

To increase the number of female doctors welcomed in Japan, the country's medical system must be reformed and modernized. For example, there is still much that can be done for Japanese healthcare — such as reducing unnecessary medical care demands by reviewing the out-of-pocket expenses for patients and consolidating excessive medical facilities. Digitalization, which has lagged behind in overall healthcare in Japan (*7*), should also be promoted to reduce labor and increase efficiency

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References

1. Matsumoto K, Seto K, Hatakeyama Y, Onishi R, Hirata K, Hasegawa T. Increase in the number of female physicians and the geographical maldistribution of physicians in Japan. Health Policy Technol. 2024; 13:100843.
2. Watari T, Mizuno K, Sakaguchi K, Shimada Y, Tanimoto Y, Nakano Y, Kono K, Tokuda Y. Gender Inequality Improvement in Medical School Admissions in Japan. J Womens Health (Larchmt). 2024; 33:339-344.
3. Wheeler G. The Tokyo Medical University entrance exam scandal: Lessons learned. International Journal for Educational Integrity. 2018;14.
4. The Asahi Shimbun. Women finally make up 40% of medical students after scandal; 2024. *https://www.asahi.com/ajw/articles/15192292* (accessed September 3, 2024).
5. OECD. OECD Health Statistics 2023. *https://doi.org/10.1787/health-data-en* (accessed November 26, 2024).
6. Kinoshita S, Kishimoto T. Decline in Japan's research

capabilities: Challenges in the medical field. Lancet. 2023; 402:1239-1240.
7. Kinoshita S, Kishimoto T. Aging population in Japan: Immediate shake-up in healthcare required. QJM. 2024:hcae097.
8. Watari T, Gupta A, Hayashi M, Mizuno K, Nakano Y, Tokuda Y, Sakaguchi K. Characteristics of medical school deans and university hospital directors in Japan. JAMA Netw Open. 2024; 7:e2351526.
9. Takaku R. How is increased selectivity of medical school admissions associated with physicians' career choice? A Japanese experience. Hum Resour Health. 2020; 18:38.
10. Matsuura S, Tomioka S, Matsuda S. Influence of the Deviation Value of High Schools on the Geographical Distribution of Medical Doctors in Japan: A Cross Sectional Study. J UOEH. 2021; 43:367-376. (in Japanese)
11. Yamamoto K, Ozaki A, Takita M, Morita T, Saito H, Senoo Y, Tanimoto T, Kami H. Negative aspects of the regional quota system in Japan. JMA J. 2019; 2:85-86.
12. Kinoshita S, Wang S, Kishimoto T. Letter to the Editor: Uneven distribution of physicians by specialty in East Asia. J Korean Med Sci. 2024; 39:e129.

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**Address correspondence to*:
Taishiro Kishimoto, Hills Joint Research Laboratory for Future Preventive Medicine and Wellness, Keio University School of Medicine, #7F Azabudai Hills Mori JP Tower 1-3-1 Azabudai, Minato-ku, Tokyo 106-0041, Japan.
E-mail: tkishimoto@keio.jp