

questionnaire forms are incorporated into this system, a more accurate determination of the dynamic state of physicians' work status would be possible. At the same time, the collection of information about physicians on maternity leave and parental leave would be desirable.

5. Conclusion

This study showed an increase in the proportion of female physicians in Japan in more recent generations, especially in surgery, surgical subareas of practice, and obstetrics and gynecology. The total number of female physicians' on leave has exceeded the number of female physicians returning to work since 1998, and the percentage of those changing their area of practice was high for surgery and low for obstetrics and gynecology and pediatrics. Leave-taking and returning to work by female physicians could have a great impact on the physician workforce because of the continuing increase in the proportion of young female physicians. These issues should be considered in physician workforce planning along with the implementation of measures to improve the working environment to encourage female physicians to stay in or return to their careers.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

TK conducted the data analysis, literature review and produced the first draft of manuscript. SK, SM and TI participated in the data analysis and the drafting of the manuscript. HI and HY contributed to sorting the original data from the MHLW. All authors discussed the results, commented on the manuscript, and gave final approval.

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