筑波大学 University of Tsukuba   京都大学 KYOTO UNIVERSITY

Pregnancy postponement during the COVID-19 pandemic
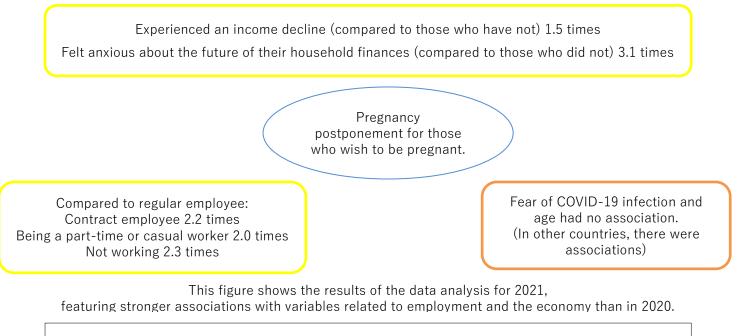## -Income decline, job insecurity and anxiety about future household finances were related-

● **Summary**

In Japan, a decline in number of births was reported during the COVID-19 pandemic. A research group led by Associate Professor Midori Matsushima, Humanities and Social Sciences, University of Tsukuba, and Professor Naoki Kondo, Graduate School of Medicine, Kyoto University, further examined the association between the COVID-19 pandemic and pregnancy postponement.

Using the Japan COVID-19 and Society Internet Survey (JACSIS) conducted in 2020 and 2021, this study analyzed data on 768 women (aged 18-50) with the intention to become pregnant, and found that approximately 20% of the women postponed pregnancy. Furthermore, the reason for this was not fear or anxiety about COVID-19 infection, but rather reduced income and anxiety towards future household finances due to the COVID-19, and the impact of this was particularly strong in 2021.

The results of this study showed that social factors affect the pregnancy decisions of those who wish to become pregnant, suggesting that it is important to promote the elimination of economic insecurity even after this pandemic is over. Further research is required to determine whether those who postpone pregnancy will give birth in the future.

These results were published online in the international journal "Journal of Biosocial Science" on January 11, 2023.

Experienced an income decline (compared to those who have not) 1.5 times
Felt anxious about the future of their household finances (compared to those who did not) 3.1 times

Pregnancy postponement for those who wish to be pregnant.

Compared to regular employee:
Contract employee 2.2 times
Being a part-time or casual worker 2.0 times
Not working 2.3 times

Fear of COVID-19 infection and age had no association.
(In other countries, there were associations)

This figure shows the results of the data analysis for 2021,
featuring stronger associations with variables related to employment and the economy than in 2020.

Contact: Faculty of Humanities and Social Sciences, University of Tsukuba
Associate Professor Midori Matsushima matsushima.midori.gb@u.tsukuba.ac.jp

1. Background

Globally, it has been reported that an increasing number of women are postponing or abandoning pregnancies due to the COVID-19 pandemic. In Japan, there is also concern about the declining birthrate since the pandemic, but little is known about how many women have decided to postpone pregnancy and what factors have affected to their decision. It is worthwhile to investigate the case of Japan, where there has been a marked decline in the number of births despite the low infection rate compared to other countries.

Unlike previous pandemics, the COVID-19 pandemic has caused a certain number of people lose their jobs and income due to restrictions on various economic activities such as traveling and going out. Since such economic factors may have influenced the postponement of pregnancy, this study focused on changes in socioeconomic conditions due to the pandemic, in addition to fear and anxiety about COVID-19 infection.

2. Methods and Results

This study examined the association between COVID-19 and the decisions to become pregnant using data on 768 women (aged 18-50 years) with the intention to become pregnant collected in 2020 and 2021 by the "The Japan Covid-19 and Society Internet Survey (JACSIS)". A generalized estimating equation (GEE) and Poisson regression were used to examine the factors underlying the postponement of pregnancy.

We found that about 20% of women postponed their pregnancies, and according to the GEE estimation, factors associated with the postponement of pregnancy were: reduced income (prevalence [PR]: 1.53, 95% confidence interval [CI]: 1.16-2.03), uncertainty about future household finances (PR: 1.56, 95% CI: 1.31-2.28), not having children currently (PR: 1.56, 95%CI: 1.16-2.08), and university graduates (PR: 1.62, 95%CI: 1.04-2.52). Poisson regression also showed that this association was stronger in 2021. Note that age was not a factor associated with delayed pregnancy.

These results indicate that economic concerns were the biggest barrier to pregnancy, rather than concerns about COVID-19 infection. It is important to focus on the negative economic impact of the pandemic and provide economic support and improvements in the labour market.

3. Spillover effects, Future plans

From this study, it is clarified that socioeconomic factors can refrain a woman from becoming pregnant even if she has pregnancy intention. This study was not able to consider the effects of marital relationships, living arrangements, and parental support before and after the pandemic. As indicated in the present study, pregnancy abstention is also occurring in older age groups, and there is a possibility that these women will abandon their pregnancies in the future. On the other hand, there is also a possibility that those who have abstained from pregnancy will become pregnant, but studies on past crises and fertility rates have shown that while abstinence caused by infectious disease itself will recover after the pandemic is over, abstinence caused by economic crisis will be prolonged. Therefore, it is

Press Release No: 26
Feb 2023

筑波大学
University of Tsukuba

京都大学
KYOTO UNIVERSITY

necessary for society as a whole to discuss how to eliminate economic insecurity in the future.

■   **About the Research Project**

   This research was supported by a Grant-in-Aid for Scientific Research from the Japan Society for the Promotion of Science.

＜**Comments by author**＞

This study showed that women who wish to become pregnant are postponing their pregnancies during a pandemic and that a major factor in this is economic insecurity. We believe that this study demonstrates the importance of long-term perspectives, such as employment stability, rather than short-term cash transfers, to build a society in which people who wish to become pregnant do not have to postpone their pregnancies. Moreover, it is necessary for us to pay attention to and seriously discuss how we want to be and what we want to do for the current society that people feel incapable to have children without financial security,

＜**Bibliographic information**＞

Title	Impact of the COVID-19 pandemic on pregnancy postponement – evidence from Japan COVID-19
Author	Midori Matsushima, Hiroyuki Yamada, Naoki Kondo, Yuki Arakawa, Takahiro Tabuchi
Journal	Journal of Biosocial Science
DOI	https://doi.org/10.1017/S0021932022000451

＜**Contact**＞

Name：Midori Matsushima

Affiliation, Position： Associate Professor, Faculty of Humanities and Social Sciences, University of Tsukuba

TEL：029-8530-6778

E-mail：matsushima.midori.gb@u.tsukuba.ac.jp