

Post-COVID-19 era trends in foreigners undergoing a complete medical examination in Japan: A single-center analysis of inbound medical care

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Abstract: In the post-COVID-19 era, inbound medical care in Japan adapted to the growing demand for high-quality and precise healthcare. One form of this care is a complete medical examination, which has gained significant popularity among foreign residents of Japan and foreign visitors to Japan. From 2021 to 2024, 787 individuals from 27 countries underwent a complete medical examination at our facility. The annual growth rate in foreign residents undergoing a complete medical examination was 64% (2022 vs. 2021), 22% (2023 vs. 2022), and 10% (2024 vs. 2023); a notable proportion of those individuals were originally from China. These findings underscore the need for Japan's medical care to evolve in response to the diverse needs of an international clientele, highlighting the importance of tailored healthcare solutions in a globalized context.

Keywords: complete medical examination, foreign residents, inbound medical care, comprehensive checkup, post-COVID-19 era

A complete medical examination (in Japanese called Ningen Dock) (1) is a comprehensive checkup (2) that is performed in Japan to detect diseases early and maintain health. Our facility (Medical Examination Center, Hospital of the National Center for Global Health and Medicine) seeks to become an international facility for complete medical examinations. To achieve this goal, our facility needs to continue to engage in three efforts.

First, the concept of a complete medical examination needs to be spread around the world through papers and academic conferences. Second, our facility needs to interact with foreigners. Third, our facility needs to accept foreign residents of Japan for a complete medical examination (foreign residents) and inbound visitors undergoing such an examination (inbound visitors).

In accordance with that philosophy, we regularly publish papers (3-5) on the tests and examinations that comprise a comprehensive checkup. Moreover, we continually welcome and accommodate visiting delegations from overseas and conduct facility tours. In order to broaden our international appeal, we need to inform foreigners about the concept of a complete medical examination and explain how Japan can meet those healthcare needs of foreigners.

Before the COVID-19 pandemic, our facility accepted many inbound visitors wishing to undergo a complete medical examination; at the time, we were too

busy dealing with inbound visitors, so we were unable to keep statistics on foreign residents of Japan who wished to undergo such an examination. Therefore, we started to keep statistics on foreign residents wishing to undergo a complete medical examination as inbound visitors decreased due to COVID-19.

In order for a complete medical examination to spread internationally, trends in foreign resident undergoing a complete medical examination at our facility are as important as trends in inbound visitors undergoing a complete medical examination. Here, we have compared the data from 2021, 2022, 2023, and 2024. In total, 787 people from 27 countries visited our facility (Figure 1).

Since 2021, the annual rate of the increase in all individuals undergoing a complete medical examination has been 14% (2022 compared to 2021), 21% (2023 compared to 2022), and 2% (2024 compared to 2023), while the increase in the rate of foreign residents undergoing such an examination has been 64% (2022 compared to 2021), 22% (2023 compared to 2022), and 10% (2024 compared to 2023). As is evident, there has been a notable increase in foreign residents undergoing a complete medical examination. This is believed to be due to our facility's active acceptance of foreigners. The increase in foreign residents undergoing a complete medical examination mainly involves Chinese, with a rate of increase of 93% (2022 compared to 2021), 26%

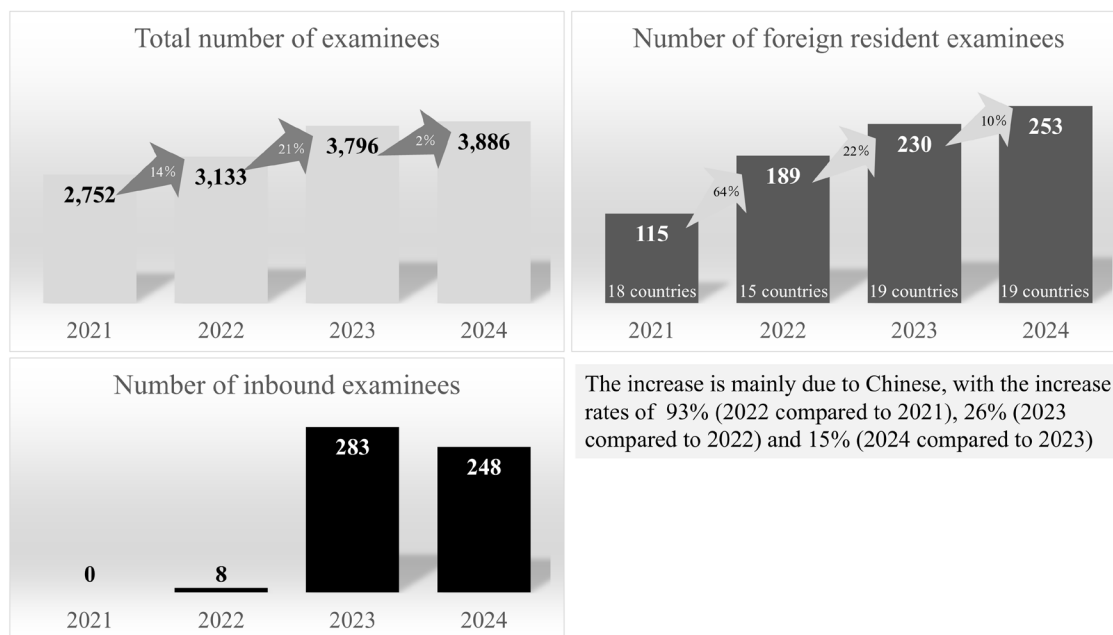


Figure 1. The number of individuals undergoing a complete medical examination at the Medical Examination Center, Center Hospital of the National Center for Global Health and Medicine, and the annual rate of the increase in individuals undergoing such an examination from 2021 to 2024. The arrow indicates the annual rate of the increase.

(2023 compared to 2022), and 15% (2024 compared to 2023). This is presumably due in part to the outflow of Chinese to foreign countries. By year and country, foreigners from 18 countries visited our facility for complete medical examination in 2021, foreigners from 15 countries did so in 2022, foreigners from 19 countries did so in 2023, and foreigners from 19 countries did so in 2024. About 30% of the foreigners living in Japan required language assistance. The number of foreigners is expected to increase in Japan, so language assistance in medical settings is also a challenge for the future. The annual rate of the increase (%) = (number this year - number last year) / number last year.

Next, let's look at the characteristics of foreign residents of Japan who underwent a complete medical examination. Forty-one percent of Japanese females underwent a complete medical examination; in comparison, 48% of female foreign residents underwent a complete medical examination. In general, females are more health-conscious, so the percentage of Japanese females undergoing a complete medical examination would be on par with that percentage or slightly higher. In fact, however, more Japanese males underwent a complete medical examination.

Foreign residents who underwent a complete medical examination were younger, on average, than Japanese who did (46.8 vs. 55.1, T.TEST: $p < 0.01$). Moreover, about 40% of foreign residents underwent repeated examinations (about 65% of Japanese did so). Only in the last few years has the concept of "a complete medical examination" gained popularity among foreigners in

Japan. If the current health-conscious younger generation continues to undergo a complete medical examination in the future, the average age gap between Japanese and foreigners may decrease. The rate of repeated examinations (%) = number of individuals undergoing a complete medical examination at our facility multiple times during a specific period / total number of individuals undergoing a complete medical examination during that period.

Finally, let us look at inbound visitors undergoing a complete medical examination. Inbound visits for a complete medical examination were temporarily suspended due to the COVID-19 pandemic but resumed in January 2023. The tests and examinations performed were also adjusted for inbound visitors, and the most preferred option consisted of a medical examination over two days that comprehensively screened for stomach, colon, lung, breast, and gynecological cancer and metabolic diseases such as diabetes, lipid disorder, and hypertension.

As a result, 521 inbound visitors underwent a complete medical examination at our facility between January 2023 and December 2024. Of these, 394 were Chinese and 127 were Vietnamese. By month, there were fewer inbound visitors in January and February than in other months, which is presumably due to the Lunar New Year holiday. By country, Chinese visitors remain the majority, but the proportion of Vietnamese has increased from before.

As mentioned earlier, we seek to become an international facility for complete medical examinations,

and we would like to continue our worldwide efforts to help maintain health and detect diseases early based on the experience we have gained thus far in dealing with foreigners.

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