

In this study, in order to quantitatively examine regional differences in the use of generic drugs by pharmacies and related factors, we analyzed more than 1 billion medical fee schedule data by year and by secondary health care area for approximately 40 million persons who were members of the National Health Insurance Association and their dependents from April 2015 to March 2021. The data was aggregated by year and by secondary medical region, and balanced panel data was constructed and analyzed. The following three indicators were used as variables indicating the use of generic drugs: (1) the percentage of pharmacies in each region that offer an additional generic drug dispensing system, (2) the volume share of generic drugs reflecting the dispensing decisions of both medical institutions and pharmacies, and (3) the volume share of generic drugs in generic name prescriptions, reflecting only the dispensing decisions of pharmacies. Three indices were used. As explanatory variables, demographic, socioeconomic, and medical supply system characteristics of the secondary medical care area in question were entered, in addition to an index pertaining to the degree of division of labor calculated by applying the Herfindahl-Hershman Index (HHI), the number of pharmacies per 1,000 population, a financial strength index, and per capita civilian expenditures. The results of the fixed-effects model adopted as a result of the test indicated that the proportion of pharmacies with an additional generic drug dispensing system may be higher in secondary medical care areas where the degree of division of labor is not very high (i.e., the HHI is high), but this result was not very robust. On the other hand, an increase in the number of pharmacies per 1,000 population significantly decreased the generic drug quantity share of generic name prescriptions, and the quantity share of generics tended to be significantly higher in areas with lower financial strength indices and per capita civilian expenditures. The results of this study suggest that competition among community pharmacies may influence pharmacies' decisions to use generics, although it is not necessarily possible to determine a causal relationship between the two. In addition, the factors associated with the overall generic drug volume share and the generic drug volume share for generic name prescriptions may differ, indicating the need for further research focusing on the dispensing behavior of Japanese pharmacies.