



Abstrak

Penelitian ini bertujuan menganalisis hubungan antara pandemi COVID-19 terhadap kejadian berat badan lahir rendah (BBLR) di kabupaten dan kota Pulau Jawa dan Bali pada periode 2019 dan 2022. Data yang digunakan bersumber dari Survei Sosial Ekonomi Nasional (Susenas) dan KawalCOVID-19. Analisis dilakukan menggunakan metode regresi data panel *fixed effect model (FEM)* dan *tobit regression* karena sebagian variabel memiliki nilai nol. Variabel utama pandemi COVID-19 diukur melalui *positivity rate* dan *case fatality rate (CFR)*, dengan variabel kontrol berupa *high-risk pregnancy rate* dan *skilled birth attendance rate*. Hasil penelitian menunjukkan bahwa *positivity rate* pada kedua model memiliki hubungan negatif namun tidak signifikan terhadap angka BBLR, sedangkan CFR menunjukkan hubungan positif dan tidak signifikan. Dari hasil penelitian yang tidak signifikan secara statistik, arah hubungan ini mengindikasikan bahwa dinamika pandemi adanya hubungan dengan kondisi kesehatan ibu dan bayi melalui perubahan akses layanan kesehatan karena secara pengaruh kurang kuat dan tidak signifikan secara statistik. Penelitian ini menegaskan pentingnya menjaga keberlanjutan layanan kesehatan maternal dan akses ANC selama krisis kesehatan publik. Upaya penguatan sistem kesehatan ibu dan anak diperlukan agar dampak pandemi serupa dapat diminimalkan di masa mendatang.

Kata Kunci: COVID-19, berat badan lahir rendah, *Fixed Effect Model*, *Tobit regression*



Abstract

This study aims to analyze the relationship between the COVID-19 pandemic and the incidence of low birth weight (LBW) in districts and cities of Java and Bali in the 2019 and 2022 periods. The data used is sourced from the National Socio-Economic Survey (Susenas) and the COVID-19 Control. The analysis was carried out using the panel fixed effect model (FEM) data regression method and tobit regression because some variables had zero values. The main variables of the COVID-19 pandemic were measured through the positivity rate and case fatality rate (CFR), with control variables in the form of high-risk pregnancy rate and skilled birth attendance rate. The results showed that the positivity rate in both models had a negative but insignificant relationship with the LBW number, while the CFR showed a positive and insignificant relationship. From the results of the study that are not statistically significant, the direction of this relationship indicates that the dynamics of the pandemic are related to the health conditions of mothers and babies through changes in access to health services because the influence is less strong and not statistically significant. This research confirms the importance of maintaining the sustainability of maternal health services and access to ANC during public health crises. Efforts to strengthen the maternal and child health system are needed so that the impact of similar pandemics can be minimized in the future.

Keywords: COVID-19, low birth weight, Fixed Effect Model, Tobit regression