

## ABSTRAK

**Latar Belakang:** Pandemi COVID-19 berpengaruh terhadap banyak sektor, termasuk kesehatan. Kelompok masyarakat yang rentan terdampak pandemi di antaranya ibu hamil dan bayi baru lahir. Berbagai literatur menyatakan bahwa pandemi berpengaruh terhadap lahir mati dan BBLR. Namun masih sedikit penelitian yang dilakukan di Indonesia dan berbasis wilayah.

**Tujuan penelitian:** Tujuan penelitian ini untuk mengetahui sebaran kasus ibu hamil COVID-19, serta faktor risiko lahir mati dan BBLR pada ibu hamil dengan COVID-19.

**Metode Penelitian:** Penelitian ini merupakan penelitian observasional analitik dengan rancangan kohort retrospektif dan mengikutsertakan semua ibu hamil positif COVID-19 yang dilaporkan di Daerah Istimewa Yogyakarta sebanyak 1.374 ibu hamil. Kriteria inklusi adalah ibu hamil dengan COVID-19 yang berdomisili di DIY, dan kriteria eksklusi adalah pemeriksaan COVID-19 selain RT-PCR dan Antigen, ibu yang belum melahirkan, ibu mengalami abortus atau meninggal, serta tidak tersedia data kondisi bayi dan berat lahir. Sebanyak 953 ibu hamil masuk menjadi sampel penelitian. Peta wilayah dibuat menggunakan aplikasi *Health Mapper*. Analisis bivariat dengan regresi logistik sederhana dan analisis multivariat dengan regresi logistik berganda menggunakan aplikasi STATA.

**Hasil:** Peta sebaran kasus ibu hamil COVID-19 di DIY berada relatif mengelompok pada wilayah tengah, di mana kondisi tingkat kepadatan penduduk tinggi dan kesejahteraan tinggi. Analisis bivariat menunjukkan usia lahir *preterm* dan BBLR berhubungan dengan kejadian lahir mati ( $p\text{-value}=0.000$ ) dan ( $p\text{-value}=0.0026$ ). *Preterm* juga berhubungan dengan kejadian BBLR ( $p\text{-value}=0.000$ ). Analisis multivariat pada luaran lahir mati menunjukkan hasil *Pseudo R*<sup>2</sup>= 0.4114, dengan variabel yang berpengaruh: status kesejahteraan rendah ( $p\text{-value}=0.022$ ), tingkat kepadatan tinggi ( $p\text{-value}=0.015$ ) dan usia kehamilan *preterm* ( $p\text{-value}=0.006$ ,  $z=2.76$ ). Analisis multivariat pada luaran BBLR menunjukkan hasil *Pseudo R*<sup>2</sup>=0.187, dengan variabel yang berpengaruh: usia kelahiran *preterm* ( $p\text{-value}=0.000$ ).

**Kesimpulan:** Sebaran kasus ibu hamil COVID-19 berada pada wilayah kepadatan penduduk tinggi dan kesejahteraan tinggi. Usia kehamilan saat terinfeksi COVID-19 tidak berpengaruh terhadap lahir mati dan BBLR. Faktor risiko yang signifikan yaitu usia kehamilan saat lahir. Status kesejahteraan dan kepadatan wilayah berpengaruh terhadap lahir mati, namun tidak berpengaruh terhadap BBLR.

**Kata Kunci:** COVID-19, luaran kehamilan, lahir mati, BBLR.

## ABSTRACT

**Background:** The COVID-19 pandemic has affected many sectors, including health. Community groups that are vulnerable to being affected by the pandemic include pregnant women and newborns. Various literature states that the pandemic has an effect on stillbirths and low birth weight babies. However, there is still little research conducted in Indonesia and is area-based.

**Objective:** The aim of this study was to determine the distribution of cases of COVID-19 pregnant women, and risk factors for stillbirths and low birth weight infants for pregnant women with COVID-19 infection.

**Method:** This study was an analytic observational study with a retrospective cohort design and included all 1,374 pregnant women who tested positive for COVID-19 in the Special Region of Yogyakarta. The inclusion criteria were pregnant women who live in DIY, and the exclusion criteria were COVID-19 tests other than RT-PCR and Antigen, women who had not yet given birth, women who had an abortion or died, and no data on the condition of the baby and birth weight. A total of 953 pregnant women entered the study sample. The maps of the area are made by using the Health Mapper application. Analysis was performed using logistic regression and multiple logistic regression with the STATA application.

**Results:** The distribution of COVID-19 in pregnant women are relatively clustered in the central region, where conditions of relatively high population density and high welfare. Bivariate analysis showed that preterm birth and LBW were associated with the incidence of stillbirth ( $p\text{-value}=0.000$  and  $p\text{-value}=0.0026$ ). Preterm birth is also related to the incidence of LBW ( $p\text{ value}=0,000$ ). Multivariate analysis of stillbirth outcomes showed  $Pseudo R^2=0.4114$ , with influential variables: low welfare status variable ( $p\text{-value}=0.022$ ), high density level ( $p\text{-value}=0.015$ ) and *preterm* gestational age ( $p\text{-value}=0.006$ ,  $z=2.76$ ). Multivariate analysis on LBW outcomes showed  $Pseudo R^2=0.1870$ , with the influencing variable: preterm birth ( $p\text{-value}=0.000$ )

**Conclusion:** The distribution of cases of COVID-19 pregnant women is in areas of high population density and high wellbeing. The gestational age at the time of infection with COVID-19 had no effect on stillbirths and LBW. A significant risk factor is gestational age at birth. Welfare wellbeing status and area density have an effect on stillbirths, but have no effect on LBW.

**Keywords:** COVID-19, pregnancy outcome, stillbirth, LBW.