

ABSTRAK

Dian Pratiwi 2021, Perbandingan *Geographically Weighted Generalized Poisson Regression* dan *Geographically Wiegthed Negative Binomial Regression* pada jumlah kematian ibu di Provinsi Jawa Tengah. Skripsi Program Studi Statistika Universitas Muhammadiyah Semarang. Pembimbing I, Dr. Rochdi Wasono, M.Si. Pembimbing II, Fathurokhman Fauzi, M.Stat.

Angka Kematian Ibu (AKI) merupakan salah satu indikator kesehatan nasional dan merupakan target SDGs 2030 dimana AKI menurun hingga 70 per 100.000 kelahiran hidup. Provinsi Jawa Tengah masih dengan jumlah kematian ibu tertinggi setelah Jawa Barat dan Jawa Timur. Untuk mengetahui faktor-faktor yang mempengaruhi kematian ibu maka dilakukan pemodelan dengan membandingkan metode GWGPR dan GWNBR, serta mencari model terbaik dengan menggunakan 3 pembobot. Faktor-faktor yang diamati dalam penelitian ini adalah persentase ibu hamil melaksanakan kunjungan antenatal K1, persentase ibu hamil mendapatkan tablet Fe3, persentase ibu hamil mendapatkan imunisasi Td2+, persentase ibu nifas mendapatkan vitamin A, persentase komplikasi kebidanan, persentase peserta KB aktif dan jumlah penduduk yang mempengaruhi jumlah kematian ibu. Berdasarkan penelitian yang telah dilakukan dengan metode GWGPR dan GWNBR, hasil dari kedua metode tersebut didapatkan model terbaik yaitu metode GWNBR dengan membentuk 3 kelompok kabupaten/kota berdasarkan variabel yang signifikan yaitu persentase ibu hamil yang mendapatkan imunisasi Td2+, persentase komplikasi kebidanan dan jumlah penduduk miskin pada kelompok 1. Variabel persentase ibu hamil yang mendapatkan tablet Fe3, persentase ibu hamil yang mendapatkan imunisasi Td2+, persentase komplikasi kebidanan dan jumlah penduduk miskin pada kelompok 2. dan variabel persentase kunjungan antenatal ibu hamil K1, persentase ibu hamil yang mendapatkan tablet Fe3, persentase ibu hamil yang mendapatkan imunisasi Td2+, persentase komplikasi kebidanan dan jumlah penduduk miskin pada kelompok 3 menggunakan pembobot *Adaptive Bisquare Kernel*. Nilai AIC terkecil yang didapatkan sebesar 197,539 dengan nilai R^2 sebesar 0,9654.

Kata kunci: GWGPR, GWNBR, Jumlah Kematian Ibu

ABSTRACT

Dian Pratiwi 2020, *Comparison of Geographically Weighted Generalized Poisson Regression and Geographically Wieghted Negative Binomial Regression on the number of maternal deaths in Central Java Province. Thesis Program of statistics Study of Muhammadiyah University of Semarang. Advisor I, Dr. Rochdi Wasono, M.Si. Mentor II, Fathurokhman Fauzi, M.Stat.*

Maternal Mortality Rate (MMR) is an indicator of national health and is the target of SDGs 2030 where MMR decreases to 70 per 100,000 live births. Central Java province is still the third highest number of maternal deaths after West Java and East Java. This study aims to determine the comparison of models with the GWGPR and GWNBR methods, and to find the best model using 3 weights. The factors observed in this study were the percentage of pregnant women carrying out antenatal visits K1, the percentage of pregnant women getting Fe3 tablets, the percentage of pregnant women getting Td2 + immunization, the percentage of postpartum mothers getting vitamin A, the percentage of obstetric complications, the percentage of active family planning participants and the population as variables. predictor (X) and number of maternal deaths as response variables (Y). Based on research that has been conducted with the GWGPR and GWNBR methods, the results of these two methods obtained the best model, namely the GWNBR method by forming 3 groups of districts / cities based on significant variables, namely the proportion of pregnant women who received Td2 + immunization, the proportion of obstetric complications and the number of poor people. group 1. The variable proportion of pregnant women who received Fe3 tablets, the proportion of pregnant women who received Td2 + immunization, the proportion of obstetric complications and the number of poor people in group 2. and the variable proportion of visits to pregnant women K1, the proportion of pregnant women who received Fe3 tablets, the proportion of mothers pregnant who received Td2 + immunization, the proportion of obstetric complications and the number of poor people in group 3 used Adaptive Bisquare Kernel weighting. The AIC value obtained was 197,539 with an R^2 value of 0,9654.

Keywords: *GWGPR, GWNBR, The number of maternal deaths*