

BAYESIAN REGRESSION OF SURVIVAL DAGUM 3 PARAMETERS LINK FUNCTION IN HIV/AIDS PATIENTS IN EAST JAVA

NUR MAHMUDAH



ABSTRACT

This model uses parameter estimation with a Bayesian 3-parameter survival regression analysis approach with the results that the factors that significantly influence the length of HIV/AIDS care in East Java are marital status (X5), kadar CD4 absolute (X7), Patient Stage (X8), functional status of the patient (X9), and Patient Therapy Compliance (X10).



RESEARCH METHODS AND RESULTS

This study used secondary data from outpatient medical recap regarding the characteristics of the condition of treating HIV/AIDS patients at Soetomo Hospital, Surabaya. The response variable is the time of treatment for HIV/AIDS sufferers (Y) and the predictor variable is categorical consisting of Gender (X1), Age (X2), Education (X3), Employment Status (X4), Marital Status (X5), Weight (X6), Kadar CD4 Absolut (X7), Suffering Stage (X8), Functional State (X9), Therapy adherence (X10) Opportunistic infections (X11), Status TB (Tuberculosis) (X12), Transmission Risk Factors (X13), and Companion taking medication (X14). the factors that influence Significant effect on the rate of recovery in care for HIV/AIDS sufferers in East Java is marital status (X5), kadar CD4 absolute (X7), Patient Stage (X8), functional status of the patient (X9), and Patient Therapy Compliance (X10). Modeling on survival data has a variety of distributions that can represent research results well using the Bayesian method approach.



INTRODUCTION

HIV/AIDS is a series of viruses that infect white blood cells, resulting in decreased immunity in humans [1]. HIV infection can be controlled with lifelong ARV drugs [2]. Based on research conducted [3] using Bayesian Spatial Survival analysis on the HIV/AIDS event process in East Java using a lognormal distribution of link function. Data that follows a certain distribution produces factors that influence HIV/AIDS care, namely gender, education and absolute CD4 levels. The consideration of using survival regression analysis with 3 link function parameters can be used as an optimal treatment step for HIV/AIDS [4]. This modeling is also useful in socializing materials about the management of HIV/AIDS and the factors that influence HIV/AIDS care with ARV therapy.

CONCLUSIONS

Regression Survival Chin 3 Parameters in Bayesian computing are able to provide information related to the causes of treatment for HIV/AIDS. Information related to HIV/AIDS care can be used by the local government as socialization materials related to subscribing and reducing HIV/AIDS sufferers in East Java.



REFERENCE

- [1] V. elok latifatul Kolbi, "Faktor-Faktor Yang Mempengaruhi Kualitas Hidup Orang Dengan Hiv/Aids (ODHA)," *Media Gizi Kesmas*, vol. 11, no. 2, pp. 643–653, 2022, doi: 10.20473/mgk.v11i2.2022.643-653.
- [2] L. P. N. Artati, "Studi Survey: Lost To Follow Up Pada Orang Dengan HIV/AIDS Di Wilayah Kabupaten Badung," *J. Nurs. Res. Publ. Media*, vol. 1, no. 1, pp. 35–41, 2022, doi: 10.55887/nrpm.v1i1.5.
- [3] N. Mahmudah et al., "BAYESIAN REGRESI SURVIVAL PADA PROSES KEJADIAN HIV/AIDS DI JAWA TIMUR".
- [4] N. Mahmudah and F. Anggraini, "on Computational Bayesian Ordinal Logistic Regression Link Function in Cases of Cervical Cancer in Tuban," *BAREKENG J. Ilmu Mat. dan Terap.*, vol. 16, no. 3, pp. 909–918, 2022, doi: 10.30598/barekengvol16iss3pp909-918.