Determination of Priority Program Area and HIV Case Prediction with Fuzzy Topsis and Exponential Smoothing Method

Abstract

Strategic planning is very influential on the successful implementation of a program / activity. Strategic planning can be in the form of prioritizing and forecasting the magnitude of the problem as the basis for determining the strategic step either in the allocation of cost and human resources. After the calculation of fuzzy TOPSIS with alternative is nineteen sub districts in Semarang Regency and the decision criteria in the form of the number of people living with HIV and thirteen other supporting criteria then obtained Bandungan District as the first priority. Exponential smoothing method is used to predict the number of people living with HIV in the period 2017 with the value of constant smoothing (α) of 0.61. Selected smoothing constants are obtained from the average Smoothing constants that produce the smallest MSE values in each sub-district. Development can be done with alternative extensions and addition of number of criteria on TOPSIS fuzzy calculation and use of causal forecasting method to replace exponential smoothing method due to HIV transmission depends on several things both quantitative and qualitative.
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Index Terms

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Keywords

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