PENENTUAN STATUS GIZI BATITA MENGGUNAKAN ALGORITMA K-NEAREST NEIGHBOR (KNN) DI UPT PUSKESMAS BENGKALIS

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ABSTRACT

This research aims to implement a system to determine the nutritional status of web-based toddlers using the K-Nearest Neighbor (KNN) algorithm in the UPT Puskemas Bengkalis area. Previously, the process carried out to determine nutritional status was still done manually by comparing the results of measuring the weight and height of toddlers with children's anthropometric standards which caused inaccurate nutritional status results. The K-Nearest Neighbor (KNN) algorithm is used as a basis for classifying nutritional status based on similarity with the nearest neighbor using the distance calculation formula. The criteria used in the system are gender, weight and height. The system provides access to health workers to quickly identify the nutritional status of toddlers. Then the K-Nearest Neighbor (KNN) Algorithm to produce toddler nutritional status based on the closest distance between the data entered and the training data. For the level of accuracy obtained using 450 data with 360 data as training data and 90 data as test data, the results of Accuracy 84%, Precision 84%, Recall 84%, and comparing the suitability of the classification calculation results with test data 85%. The system development method used is Rapid Application Development.

Keywords*: website, k-nearest neighbor (KNN), classification, nutritional status, rapid application development.*