

Design and Implementation of a Web-Based Outpatient Electronic Medical Record Information System at the Umbulsari Jember Community Health Center, Mudafiq Riyan Pratama, S.Kom., M.Kom. (Supervisor I)

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ABSTRACT

The medical record activities at Umbulsari Public Health Center in Jember are still being carried out manually. The impact of resulted is incompleteness of the patient's diagnostic coding process or with a percentage of completion still below 100% and a lengthy medical record delivery time of more than 10 minutes. The aim of this study is to design and create an outpatient electronic medical record system at Umbulsari Public Health Center in Jember, based on a web platform. Data collection approaches include observation, interview interactions, documentation, and brainstorming sessions. The system development method applied is prototype methodology, involving stages such as needs identification, prototype construction, user preference adjustment, system development, and system customization based on user preferences. The initial problem analysis stage revealed reliance on manual medical records. The prototype development stage includes creating flowcharts, Data Flow Diagrams (DFD), Entity Relationship Diagrams (ERD), and interface designs. Users of the system include clinic staff, outpatient registration personnel, and administrators. The system development phase starts by gathering materials including Software, CSS Framework Bootstrap version 4, Codeigniter Framework, and Visual Studio Code, followed by system design. After completing the system, continued by testing phase use Black Box Testing approach with successful results on all system functions.

Keyword: *Umbulsari Jember Community Health Center, Electronic Medical Record, Prototype Method, Design and Implementation, Outpatient.*