

ABSTRAK

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Perancangan *Dashboard* Monitoring Kasus Pneumonia Menggunakan Metode SDLC Model Waterfall Berbasis PHP di Puskesmas Mijen

14 Lampiran depan+47 Halaman+5 Tabel+14 Gambar+2 Lampiran akhir

Latar Belakang: Pemantauan kasus pneumonia di Puskesmas Mijen masih dilakukan secara manual menggunakan tabel/spreadsheet, sehingga analisis data lambat dan rawan kesalahan. Ketiadaan visualisasi data yang dinamis menyulitkan tenaga kesehatan dalam memahami tren kasus dan melakukan tindak lanjut lapangan. Oleh karena itu, dibutuhkan sistem dashboard berbasis web yang mampu menyajikan data secara akurat, cepat, dan mudah dipahami.

Metode: Penelitian ini merupakan pengembangan sistem informasi menggunakan metode *System Development Life Cycle (SDLC)* model Waterfall. Data sekunder pasien pneumonia tahun 2024 dari Puskesmas Mijen diolah, dianalisis, lalu dirancang menjadi sistem berbasis PHP dan MySQL. Pengujian dilakukan dengan metode *Black Box Testing* serta uji coba lapangan melibatkan petugas puskesmas.

Hasil Penelitian: Telah dihasilkan dashboard monitoring pneumonia dengan fitur utama: grafik tren kasus bulanan, distribusi kasus berdasarkan jenis kelamin, umur, dan kelurahan, status pemantauan pasien, tabel rekap interaktif, serta filter pencarian berdasarkan No. RM dan variabel lain. Hasil uji menunjukkan seluruh fungsi berjalan sesuai kebutuhan, dengan respon positif dari petugas puskesmas yang menilai dashboard memudahkan monitoring dibanding metode manual.

Kesimpulan: Dashboard monitoring pneumonia berbasis web ini dinilai efektif dalam mempercepat proses pemantauan, meningkatkan akurasi data, serta mendukung pengambilan keputusan berbasis bukti di Puskesmas Mijen. Sistem ini dapat dikembangkan lebih lanjut dengan integrasi RME dan fitur analisis prediktif.

Kata kunci: Dashboard, Pneumonia, SDLC, Waterfall, PHP, Puskesmas

Referensi: 35 literatur (2014–2025)

ABSTRACT

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Design of a Pneumonia Case Monitoring Dashboard Using the SDLC Waterfall Model Based on PHP at Puskesmas Mijen

14 Preliminary Attachments + 47 Pages + 5 Tables + 14 Figures + 2 Final Appendices

Background: Pneumonia case monitoring at Puskesmas Mijen is still carried out manually using tables/spreadsheets, resulting in slow data analysis and vulnerability to errors. The absence of dynamic data visualization makes it difficult for health workers to understand case trends and conduct timely follow-up actions. Therefore, a web-based dashboard system is needed to present data accurately, quickly, and in an easily understandable manner.

Method: This study is a system development research using the System Development Life Cycle (SDLC) with the Waterfall model. Secondary data of pneumonia patients in 2024 from Puskesmas Mijen were processed, analyzed, and then designed into a PHP and MySQL-based system. Testing was conducted using the Black Box Testing method along with field trials involving Puskesmas staff.

Results: A pneumonia monitoring dashboard was successfully developed with key features including monthly trend charts, case distribution by gender, age group, and sub-district, patient monitoring status, interactive data tables, as well as search filters based on medical record numbers and other variables. Testing results showed that all functions worked according to requirements, with positive feedback from Puskesmas staff who considered the dashboard to simplify monitoring compared to manual methods.

Conclusion: The web-based pneumonia monitoring dashboard was found to be effective in accelerating the monitoring process, improving data accuracy, and supporting evidence-based decision-making at Puskesmas Mijen. This system can be further developed through integration with Electronic Medical Records (EMR) and predictive analytics features.

Keywords: Dashboard, Pneumonia, SDLC, Waterfall, PHP, Puskesmas

References: 35 literatures (2014–2025)