

# DRUG INFORMATION MANAGEMENT SYSTEM INCREASES THE PERFORMANCE OF PHARMACEUTICAL SERVICES IN INDONESIA

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## ABSTRACT

**Background:** Pharmaceutical Management Information Systems (PMIS) is necessary in pharmaceutical services. However, PMIS at District Pharmacy Installation (DPI), Community Health Center (CHC) and the Sub-Health Center (SHC) in Indonesia was mostly implemented manually, creating high administration workload and increasing the risk of error in the supply process. A first IoT-based PMIS application named SIMO (*Sistem Informasi Manajemen Obat*, Drugs Information Management System) was developed and implemented at CHC and SHC. This study aimed to determine the effectiveness of SIMO in improving the performance of pharmaceutical services at CHC and SHC.

**Subject and Methods:** A before and after only with no control quasi-experiment design was conducted in CHC and SHC in Cianjur, West Java from December 2019 to February 2020. A total of 35 staff at the PMIS unit was selected for this study. The dependent variable was the performance of pharmaceutical services. The independent variable was SIMO. The Mean difference before and after SIMO was tested by t-test.

**Results:** The performance of pharmaceutical services after SIMO (Mean= 80.82; SD= 2.70) was higher than before SIMO (Mean= 63.20; SD= 5.99), and this increase was statistically significant (p= 0.014).

**Conclusion:** The application of SIMO improves the performance of pharmaceutical services.

**Keywords:** drugs information management system, performance, pharmaceutical service, CHC-SHC.

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