

FACTORS HINDERING THE IMPLEMENTATION OF ELECTRONIC DISEASE REPORTING AT THE SOUTH BUTON REGENCY HOSPITAL

Wa Ode Nilam Andriani^{1*}, Wa Ode Sitti Budiatty², Niska Salsiani Sinta³

^{1,2,3} Politeknik Baubau, Baubau City, Indonesia

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CORRESPONDING AUTHOR

Name : Wa Ode Sitti Budiatty

Address: -

E-mail : de2usman.725@gmail.com

ABSTRACT

This study aims to identify the inhibiting factors that prevent the implementation of electronic disease reporting at the South Buton District General Hospital (RSUD). A descriptive qualitative approach was employed, with data collected through in-depth interviews and observations. The findings reveal that the main barriers include: (1) technical factors such as limited internet infrastructure, hardware availability, and system integration; (2) human resource factors, particularly the lack of training, low digital competence, and high workload of staff; (3) managerial factors including the absence of standard operating procedures (SOP), weak inter-unit coordination, and limited leadership support; and (4) external factors such as insufficient technical assistance, lack of specific funding, and suboptimal support from the health office. The study concludes that strengthening infrastructure, enhancing human resource capacity, establishing clear internal policies, and ensuring cross-sectoral support are crucial to enable effective implementation of electronic disease reporting at RSUD South Buton

PENDAHULUAN

The healthcare industry is currently undergoing a shift as a result of rapid advances in science and technology. Hospital healthcare services are one of the changes in the healthcare sector. According to (Rahmatika et al., 2021) Hospitals are public health institutions with their own unique characteristics that are influenced by advances in medical science. Therefore, hospitals must provide adequate and satisfactory services. Hospitals must improve the quality of their services to measure this. Medical record documentation is one way to evaluate the quality of hospital services (Putra et al., 2024)

Based on Minister of Health Regulation No. 24 of 2022, Electronic Medical Records are medical records created using an electronic system intended for the administration of medical records. This is one of the subsystems of the health service facility information system that is connected to other information subsystems in health service facilities.

The general benefits of electronic medical records are that they can improve the professionalism of hospital performance. Patients will enjoy greater convenience, speed, accuracy, and comfort in health services. With the implementation of EMR, hospitals can perform auditable and accountable documentation. It facilitates coordination and integration between units within the hospital. Higher data accuracy and precision, efficiency in the use of time and space, compared to paper medical records that require large storage areas (Permenkes No. 24, 2022).

One of the reporting systems that is of particular concern is the reporting of communicable and non-communicable diseases through the Early Warning and Response System (SKDR) and the Disease and Health Information System (SIPTMK) or Epidemiological Surveillance Information System application. This system is used to record and report disease case data quickly, accurately, and in real-time from health care facilities to district/city, provincial, and central health offices. According to (Pertiwi & Supryatno, 2023), The electronic reporting system has proven to be capable of increasing the speed of report delivery and data quality, as well as facilitating the tracing of disease sources in extraordinary events (KLB). In practice, this reporting system is also integrated with other digital platforms such as e-Puskesmas, e-Surveillance, and the Ministry of Health's big data system, which facilitates comprehensive monitoring and evaluation of public health situations.

Disease reporting is an important component of the public health surveillance system, which plays a vital role in detecting, controlling, and preventing the spread of disease in the community. This reporting includes the process of recording, collecting, processing, and submitting information about disease outbreaks from health care facilities (fasyankes) to health offices at the district/city, provincial, and central levels. A health information system is defined as a system consisting of data, information, instructions, devices, technology, and human resources that are interconnected and methodically controlled for consideration based on Government Regulation of the Republic of Indonesia Number 46 of 2014 (Putra et al., 2024). Disease reporting can be considered the backbone of the surveillance system and a key instrument in the public health response system. (Suyanto et al., 2015).

Based on the results of initial observations on March 19, 2025, disease reporting has not been carried out electronically at the South Buton District Hospital. Surveillance officers still use the XL application for disease reporting and do not yet have SOPs for disease reporting. From this description, it can be concluded that there are various inhibiting factors that have prevented the South Buton District Hospital from fully implementing electronic disease reporting. These obstacles include technical factors such as infrastructure and networks, human resource factors such as competence and resistance to change, and managerial factors such as a lack of strategic planning and regular supervision. This situation certainly has a serious impact on disease control efforts in the region, given that the accuracy and timeliness of data are crucial to the effectiveness of public health responses..

METODE

This study uses a qualitative approach with a descriptive method. The qualitative descriptive research design aims to obtain a contextual understanding of the technical, human resource, organizational, and external factors that influence the non-implementation of the electronic disease reporting system. The subjects in this study were the head of the medical records department, hospital management staff, processing officers, medical records officers, and IT officers. The object of the study was electronic disease reporting at the South Buton Regional General Hospital, particularly in terms of technical, human resource, managerial, and external obstacles. The research was conducted at the South Buton District Hospital from March to July 2025. Data collection techniques included interviews, written notes, and voice recordings. Research instruments to assist in the data collection process included interview guidelines and observation sheets. The interview guidelines were compiled based on indicators related to technical, human resource, organizational, and external factors. The content validity of the guidelines was tested through expert judgment with the supervising lecturer and hospital information system practitioners.

HASIL & PEMBAHASAN

This study was conducted at the South Buton District Hospital on the factors hindering the implementation of electronic disease reporting at the South Buton District Hospital.

Analyzing the competence and readiness of human resources (HR) in supporting the implementation of digital-based disease reporting, including training and workload of officers,
Have you or other officers received training on electronic disease reporting?

Based on interviews with informants, it was found that to date, no training has been provided on the use of the electronic disease reporting system.

How well do staff understand and are able to use the electronic disease reporting application?

Based on information from informants, it was reported that staff's level of understanding of the use of the electronic disease reporting application is still low or cannot yet be measured.

In terms of human resources, the South Buton District Hospital has not received training on the use of the electronic disease reporting system. As a result, the ability and understanding of officers in using the electronic disease reporting application cannot yet be assessed objectively. This is a major obstacle because human resources play a key role in the operationalization of information systems. One factor that influences the success of digital health implementation is the availability of adequate human resources, both in terms of quality and quantity. The low quantity and quality of human resources and the lack of skills are among the obstacles to the implementation of health information systems. One thing that can be done to improve the skills of officers in running information system applications is to provide training to community health center officers. In line with the research

(Wayan Wahyu Apriliantika^{1*}, Artha Prabawa¹, Rico Kurniawan¹, 2023) which states that officers who already have skills or abilities in operating computers will find it easier to implement information systems in health centers.

The readiness of human resources (HR) at the South Buton District Hospital in supporting digital-based disease reporting is still low, due to the lack of adequate training. This means that the ability and understanding of officers in using electronic reporting applications cannot yet be assessed objectively. In fact, the availability of qualified and sufficient HR is a key factor in the successful implementation of digital health. The low quality and quantity of HR is a major obstacle, so it is necessary to improve skills through training. In line with previous research, basic skills in operating computers have been proven to make it easier for health workers to implement health information systems in service facilities.

Explaining external factors that influence the implementation of electronic reporting, such as support from the Health Office, budget availability, and technical assistance from relevant agencies.

Does the district health office provide technical support or training related to disease reporting?

Based on the interview results, the informant said that he did not know much about disease reporting because he had never interacted directly with it, except when there was a request for reports such as registers from related parties.

Does the hospital receive a special budget for the development of an electronic reporting system?

Based on the interview results, the informant said that there was no budget for this.

How is communication or coordination with the Health Office when sending disease reports?

Based on the interview results, the informant from the processing department stated that communication was going well. Meanwhile, the informant from the outpatient department said that communication with the health office was not well known directly, because reports were usually made by surveillance officers, so they were the ones who understood the process better.

In your opinion, what is needed for the Regional General Hospital to immediately switch to electronic disease reporting?

Based on the interview results, informants from the processing department mentioned that there were budgetary requirements.

Externally, the South Buton District Hospital had not received any technical guidance from the health office. In addition, there was no specific budget for the development of an electronic disease reporting system, so the process of upgrading the system was delayed. The South Buton District Hospital still requires adequate funding and infrastructure. This indicates that cross-sector support, particularly from higher-level government agencies, remains very limited.

This study is in line with (Mutmainnah & Hidayatullah, 2025) menyatakan bahwa sistem teknologi informasi yang digunakan untuk pelaporan anggaran sering kali inadequate and not user-friendly, causing errors and delays in the reporting process. Their research shows that the implementation of a more modern and integrated reporting system can reduce the time required for reporting and improve the accuracy of the reported data.

From this description, it can be concluded that the implementation of electronic disease reporting at the South Buton District Hospital still faces external obstacles, particularly a lack of technical support from the Health Office and the absence of adequate funding and infrastructure. These conditions hinder the process of developing the reporting system. In line with the research (Mutmainnah & Hidayatullah, 2025) Limitations in inadequate information technology systems have the potential to cause delays and errors in reporting. Therefore, cross-sector support is needed, especially from government agencies, to provide technical assistance and a special budget so that the implementation of a modern, integrated, and user-friendly reporting system can be realized, thereby increasing the accuracy and effectiveness of reporting.

Describe the managerial role and internal policies of the hospital, including leadership support, availability of SOPs, and coordination between units related to the electronic reporting system.

Does the hospital have SOPs or work guidelines related to electronic disease reporting?

Based on the interview results, the informant said that the hospital does not yet have SOPs related to electronic disease reporting.

How supportive are the leaders of the regional public hospital (RSUD) of the implementation of electronic disease reporting?

Based on the interview results, informant I said that the leaders of the RSUD are very supportive of the implementation of electronic disease reporting.

Is there coordination between the medical records, IT, and service units regarding disease reporting?

Based on the interview results, informant R stated that coordination between the medical records, IT, and service units already exists.

How often is supervision or evaluation of the disease reporting system conducted?

Based on the interview results, the informant stated that supervision or evaluation of disease reporting is usually conducted every month. The informant from the processing department added that evaluation can be conducted monthly, quarterly, or even annually.

The South Buton District Hospital does not yet have SOPs for electronic disease reporting. Disease reporting is still done manually, and there are no direct instructions from management regarding the use of an electronic disease reporting system. Currently, there is no coordination involving the IT department at the South Buton District General Hospital because the reporting system is still manual. However, coordination will certainly be carried out in the future as the Hospital Information Management System (SIMRS) is developed, so that electronic disease reporting will require the role of IT in supporting its implementation. Currently, supervision and evaluation of the system have not been carried out because reporting is still done manually.

This research is in line with (Alifi et al., 2023), From the perspective of policy and internal management, the absence of Standard Operating Procedures (SOPs) is still found in many hospitals. The lack of specific standards related to the implementation of SIMRS is a major obstacle. Without clear SOPs, the implementation of SIMRS tends to be inconsistent and has the potential to cause inefficiencies in workflows. Organizational support and employee motivation also influence the success of SIMRS implementation.

The South Buton District Hospital faces obstacles in implementing electronic disease reporting due to the absence of governing SOPs, direct instructions from leadership, and coordination with IT personnel. This situation has resulted in manual reporting and a lack of system supervision and evaluation. The absence of specific standards related to SIMRS implementation, as found in many other hospitals, is a major factor hindering the uniform and efficient application of the system. Therefore, organizational support, the development of clear SOPs, IT involvement, and employee motivation are important aspects that must be strengthened so that the implementation of SIMRS and electronic reporting can run optimally.

Identify technical factors that hinder the implementation of electronic disease reporting, including internet network constraints, hardware, and application system integration.

What is the current condition of the internet network at South Buton Regional General Hospital?

Based on the interview results, all informants said that the internet network at South Buton Regional General Hospital is still unstable.

Does the hospital have adequate equipment for digital disease reporting?

Based on the interview results, most informants assessed that the equipment at the hospital for digital disease reporting is available, but not yet fully adequate.

Does the SIMRS currently in use have a disease reporting module? If not, what are the obstacles?

Based on the interview results, all informants agreed that the SIMRS currently used at the South Buton Regional General Hospital does not yet have a specific module for disease reporting.

One of the main factors hindering the implementation of electronic disease reporting is the instability of the internet network in the hospital environment, which means that the reporting process is still carried out manually using paper forms and data is sent via email or WhatsApp. This limitation shows that the electronic reporting system cannot yet be accessed optimally and consistently by all service units. Although hardware (computers) is available in most units, integration between systems has not yet occurred comprehensively because the SIMRS used is still not equipped with a disease reporting module.

Research in line with (Sari Dewi & Silva, 2023) For now, RME still faces a number of problems and challenges, ranging from technical issues. Additional problems include network issues, power outages, internet outages, and bridging with BPJS that is not connected. To resolve the various

problems arising from the implementation of RME, a system evaluation is needed to evaluate the health care facilities that have implemented it.

The implementation of electronic disease reporting in hospitals still faces various obstacles, mainly related to the instability of the internet network, which causes reporting to often be done manually through paper forms or alternative media such as email or WhatsApp. Although the hardware is already available in most service units, system integration is not yet optimal because SIMRS is not yet equipped with a disease reporting module. In addition, other technical obstacles such as network disruptions, power outages, and bridging issues with BPJS further exacerbate the challenges in implementing Electronic Medical Records (EMR). Therefore, a comprehensive evaluation of the existing system is needed to ensure infrastructure readiness, application integration, and improved quality of digital-based health services.

PENUTUP

Human Resources (HR): The competence of health workers is still low, there is no technical training, so understanding of electronic reporting procedures has not yet been established.

External Factors: There is no technical support, training, or budget allocation from the Health Office. Coordination is still limited to WhatsApp or manual communication.

Managerial & Internal Policy Factors: There are no SOPs, leadership instructions, or coordination between units (medical records, IT, services). Supervision and evaluation are also not yet in place.

Technical Factors: The internet network is not yet stable, SIMRS does not yet have a disease reporting module, and there are limitations in system integration even though computer equipment is available.

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