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# Analysis of Medical Record Documentation and Reporting in Health Service Facilities

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***Abstract***.
***Background:*** *Health service facilities play a crucial role in delivering quality healthcare, including integrated medical record recording and reporting. A reliable recording and reporting system is essential to ensure the availability of accurate medical data, support healthcare evaluation, and streamline administrative processes.* ***Objective:*** *This study aims to analyze the system of recording and reporting medical records in health service facilities, focusing specifically on the structure and implementation of these systems.* ***Methods:*** *This research utilizes a narrative literature review approach. Data were collected from 10 scholarly articles retrieved via Google Scholar based on predefined inclusion and exclusion criteria. Data extraction and synthesis were conducted to address the research questions.* ***Results:*** *The findings indicate that medical record recording and reporting systems in health service facilities face multiple challenges, including limited human resources, the prevalence of manual documentation prone to data loss, and suboptimal implementation of information technology. Some health facilities have initiated the adoption of digital systems to improve reporting accuracy and efficiency.* ***Conclusion:*** *Effective training, stronger regulations, and enhanced technological capacity are necessary to improve the implementation of medical record systems in health facilities.*

***Keywords:*** *Medical Record Documentation, Reporting, Health Service Facilities*

**Abstrak**.
**Latar belakang:** *Fasilitas Pelayanan Kesehatan memiliki peran penting dalam memberikan layanan kesehatan yang berkualitas, termasuk pencatatan dan pelaporan rekam medis yang terintegrasi. Sistem pencatatan dan pelaporan yang baik diperlukan untuk memastikan ketersediaan informasi medis yang akurat, mendukung evaluasi layanan kesehatan, serta menjaga efisiensi proses administrasi.* ***Tujuan:*** *Penelitian ini bertujuan untuk menganalisis sistem pencatatan dan pelaporan rekam medis di fasyankes, dengan tujuan khusus meliputi menganalisis sistem pencatatan dan sistem pelaporan rekam medis di fasyankes.* ***Metode:*** *Penelitian ini menggunakan metode literature review dengan analisis naratif. Data dikumpulkan dari 10 artikel yang diperoleh dari Google Scholar dengan kriteria inklusi dan eksklusi yang telah ditentukan. Ekstraksi dan sintesis data dilakukan untuk menjawab pertanyaan penelitian.* ***Hasil:*** *Hasil penelitian secara singkat.* ***Simpulan:*** *penelitian menunjukkan bahwa sistem pencatatan dan pelaporan rekam medis di fasyankes masih menghadapi berbagai tantangan, seperti keterbatasan sumber daya manusia, pencatatan manual yang rawan kehilangan data, serta belum optimalnya implementasi teknologi informasi. Beberapa fasyankes telah mencoba mengembangkan sistem berbasis digital untuk meningkatkan efisiensi dan akurasi pelaporan.*

**Kata kunci**: ( *Dokumetasi Rekam Medis, Pelaporan , Fasilitas Pelayanan ).*

## BACKGROUND

Health Service Facilities are places used to carry out health service efforts, including promotional, preventive, curative, and rehabilitative services conducted by the government, local governments, and/or the community. Health facilities play a crucial role as the frontline in the health service system, providing various medical services, ranging from routine health check-ups, treatment,

care, to more complex medical procedures (Gama Bagus Kuntoadi, et al 2024).

Health facilities can include hospitals, community health centers, clinics, pharmacies, laboratories, and others that provide medical services. Health facilities play a very important role as they are places where the community can obtain medical services according to their needs. Hospitals, for example, provide care services for patients with illnesses that require intensive treatment, such as surgery, inpatient care, or emergency care. Community health centers, which are usually found at the sub-district level, provide basic health services such as immunization, maternal and child health check-ups, and treatment for minor illnesses. In addition, health facilities also serve to provide health education to the community, for example through counseling on healthy lifestyles, disease prevention, and vaccination. As part of an integrated health service system, health facilities collaborate with various parties, including the government, medical personnel, and the community, to ensure that every individual has adequate access to the necessary health services. Health facilities also have a responsibility to ensure that the services provided are of high quality and meet established health standards. Due to their crucial role, the existence of health facilities is closely related to the well-being of the community.

The recording and reporting of medical records are the main activities in health service institutions, and hospital information systems play an important role in this process (Putra Pangestu Hermawan et al., 2024). All data and information regarding primary factors and other supporting staff related to community health centers are sent to the center and serve as reporting material for needs. This recording is carried out by healthcare personnel involved in patient care and includes complete, accurate, and detailed data regarding the patient's condition (A'ini, 2021).

## TEORITICAL RIVIEW

The medical record recording system is a method or system used by health facilities to record, store, and manage medical information related to patients. The purpose of the medical record recording system is to ensure that all information related to the patient's health condition can be accessed accurately and promptly by medical personnel who require that data to provide the best care. Recording and documenting the results of physical examinations, actions, treatments, and other services that have been provided. The documentation of medical record documents must be filled out completely, clearly, and sequentially in the records of each healthcare provider

according to the time of the healthcare services provided. (sari et al, 2023)

In its development, medical records can be recorded in manual or electronic form. Electronic Medical Records (EMR) have become the primary choice because they allow data to be stored in a digital format that is easier to access and manage. Well-recorded medical record data also facilitates the coordination process among medical personnel and different health facilities. This can enhance the effectiveness of patient care, reduce duplicate examinations, and expedite the diagnosis and treatment process. The recording of medical records also includes aspects of protecting patient data confidentiality. In many countries, there are regulations.

The medical record reporting system is a procedure for collecting, conveying, and documenting patient medical information. This system is used for administrative purposes, service quality evaluation, or health research. Information from patient medical records is processed and communicated to relevant parties, such as hospital managers and health institutions. The aim is for information to be exchanged accurately and in accordance with regulations. Reporting often takes the form of structured reports that include diagnoses, treatments, and test results. A good reporting system helps evaluate service quality and identify issues. With technology, reporting is now more often in digital format, speeding up data processing. However, patient privacy protection remains important, so the system is equipped with strict security protocols.

There are two types of reporting, namely internal reporting (within the hospital) and external reporting (outside the hospital). External reporting includes the recapitulation report (RL) 1, which contains the basic data of the hospital reported at any time there is a change in the hospital's basic data, so this basic data can be considered as the most current data at all times (update). RL 3 contains data on hospital service activities reported periodically each year. RL 4 contains morbidity or mortality data of outpatient and inpatient patients reported periodically each year. RL 5, which is monthly data reported periodically each month, contains visit data and the top ten diseases for both outpatient and inpatient care. (Hastuti et al, 2024)

The journal explicitly emphasizes the importance of analyzing the medical record documentation and reporting system in health service facilities (fasyankes) for several critical reasons:

**Ensuring the Availability of Accurate Medical Information** A well-structured documentation and reporting system allows for complete and accurate recording of patient data. This is essential for healthcare

professionals to make timely and appropriate clinical decisions. Without a reliable system, information may be lost or inaccurate, directly impacting the quality of healthcare services.

**Improving Administrative Efficiency** An integrated system—especially one that utilizes information technology—can streamline administrative processes, from patient registration to reporting cases to higher authorities. This reduces staff workload and minimizes documentation errors.

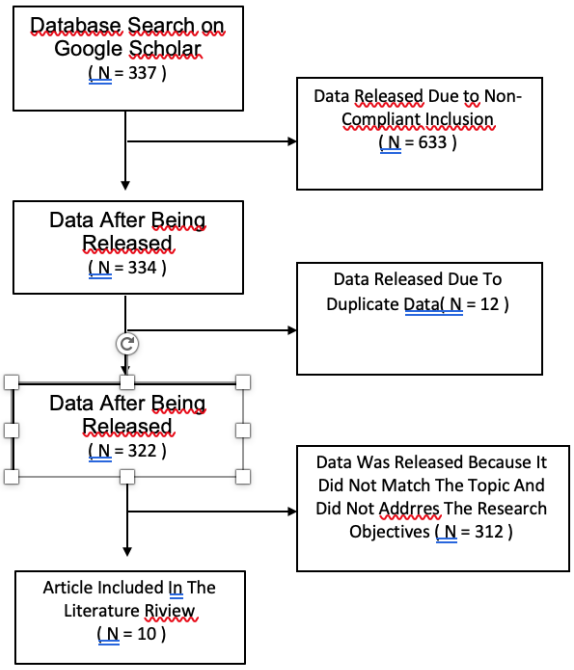
**Strengthening the Overall Health Service System** Medical record documentation and reporting serve as the foundation of the national health information system. If this process is not well-executed at the facility level, the data received by national or central health institutions may be inaccurate, ultimately affecting health policy-making.

**Ensuring Compliance with Regulations and Standards** Health facilities are required to comply with mandatory reporting formats such as RL 1 to RL 5. Without proper analysis and system improvement, facilities risk non-compliance, which may impact their reputation and funding.

## RESEARCH METHODS

This study uses a literature review method. The reference search process is carried out through the Google Scholar database. The selection of research is carried out based on the established Narrative Literature Review (NLR) method. Keywords to search for the journal in the Google Scholar database are by using (AND and OR).

| **Recording** | AND | **Reporting** | AND | **Diabetes Melitus** | AND | Healthcare Facilities |
|---|---|---|---|---|---|---|
| OR | | OR | | OR | | OR |
| Reporting | | | | | | |
| OR | | OR | | OR | | OR |
| Healthcare Faclities | | | | | | |




**Gambar 1. Data Discovery Flowchart**

## RESULTS AND DISCUSSION

The research results indicate that the recording and reporting system of medical records in health facilities still faces various challenges. Some health facilities still use manual recording, which is vulnerable to data loss and inaccuracies in information. Additionally, the limited number of staff and the lack of training for recording and reporting medical records are also significant obstacles. It was also found that some health facilities that have attempted to implement digital systems face challenges such as data input errors and a lack of integration between health service units. The evaluation of the application-based recording system, such as ASIK, shows a need to improve internet connectivity and enhance the capabilities of the technology used.

The results of this study highlight the need for intensive training for health workers, strengthening regulations related to recording and reporting medical records, and improving information technology capacity to support the implementation of a more effective and efficient recording and reporting system in health facilities.

**Table 1.**

| Article Code | Article title | Result |
|---|---|---|
| **[1]** | overview of diabetes mellitus surveillance reporting and achievements of patients with diabetes mellitus who receive services according to standards in east java province | **Internal factors** Lack of human resources, limited facilities & infrastructure, manual & digital systems are not integrated, there is no reporting budget **External Factors** Internet is limited, there is no optimal support from the Department, Policy Center |
| **[2]** | information system for registration and recording of patient medical records | **Internal factors** Officers have not optimally use the system, officer knowledge has not been evenly distributed **External Factors** No specific mention yet |
| **[3]** | effect of disease codefication on the accuracy of outpatient morbidity reports | **Internal factors** Recording errors by officers, less thorough **External Factors** Effect of BPJS Kesehatan claims regulation |
| **[4]** | web-based reporting system on the implementation of occupational safety and health (k3) activities in puskesmas | **Internal factors** Not all data is entered in the e-TB Manager, the data is not synchronized **External Factors** Not all data is entered in the e-TB Manager, the data is not synchronized |
| **[5]** | analysis of recording and reporting of covid-19 infectious diseases in the ward sub-district of mojokerto regency with surveillance tracing method | **Internal factors** Internal data mismatch, lack of data validation **External Factors** Reporting guidelines from the Ministry of Health, urgency due to the pandemic |
| **[6]** | evaluation of the implementation of the system of recording and reporting data on early detection of non-communicable diseases in the healthy indonesia application (asik) in the city of denpasar with pieces method | **Internal factors** Officers wear difficulty application, training has not been evenly distributed **External Factors** ASIK system comes from the center, need a stable connection, the influence of national regulation |

| | | |
|---|---|---|
| **[7]** | program implementation of integrated recording and reporting system (sp2tp) puskesmas pesantren ii | **Internal factors** Limited surveillance power, dual input (manual & digital), limited means **External Factors** There is no optimal support from local governments |
| **[8]** | evaluation of tuberculosis case recording and reporting system in syarif hidayatullah hospital | **Internal factors** Not all computers are available, not connected to the internet, Limited human resources **External Factors** Limitations of external support and connectivity |
| **[9]** | consistency of digital maturity assessment in the implementation of recording and reporting of maternal and child health information system (kia) in district health offices | **Internal factors** Lack of training, low competence inaccurate data **External Factors** Not mentioned yet |
| **[10]** | analysis and development of measles surveillance reporting recording system | **Internal factors** HR problems in mastering new technologies **External Factors** Challenges of geographic regions, network limitations, drive for National Innovation |

## DISCUSSION

The whole article shows the problems in the recording and reporting system in health care facilities, both in terms of human resources (HR), infrastructure, and Information Systems. Articles [1], [5], [7], and [8] emphasizes the low accuracy and regularity of reporting due to lack of human resources and limited infrastructure. Articles [6] and [10] highlight the adoption of new technologies that still face implementation constraints in the field, mainly due to lack of training and technical readiness. Articles [2], [4], and [9] try to offer information systems as a solution, but implementation in the field is not yet fully effective.

Factors as the main problem Almost all articles like [1], [3], [6], [7], [8], and [9] stated that the lack of training, limited number, or thoroughness of officers to be a factor inhibiting good recording and reporting. Limited infrastructure and network Articles [1], [6], [8], and [10] indicates constraints on the internet connection or hardware that does not yet optimally support the digital recording system. Incompatibility of the system with the needs in the field As seen in [4], [6], and [10], the system applied is sometimes not in accordance with the real conditions in the health facility, both from a technical and operational side.

Some articles ([2], [4]) are more solutive and focus on developing new systems, while others ([1], [3], [5], [8]) evaluative of existing conditions. Articles [5] and [10] feature specific infectious disease-based reporting approaches (COVID-19 and measles), while others focus on the general reporting system or PTM. The Article [6] measures system performance using the PIECES method, while other articles do not explicitly use a

structured evaluation model. [3] vs [6]: Article [3] emphasizes the aspect of human error in recording (disease codefication), while [6] emphasizes the importance of the system as a tool for efficiency. This shows the difference in views between HR and technology-based approaches. [1] and [7] underscore the importance of managerial and policy support, whereas [2] and [4] focus more on the effectiveness of systems developed without taking into account external policy factors directly.

Several articles offer concrete technology-based solutions such as web-based systems ([4]), ASIK National applications ([6]), as well as IoT integration innovations ([10]). The Article [6] uses the systematic PIECES method, making it a fairly comprehensive information system evaluation reference. The Article [3] provides statistical data and statistical tests (p-value, OR, RR) that reinforce the validity of the results.

Many articles such as [1], [5], [7], and [8] is still descriptive without a strong quantitative approach. Some studies do not mention research methods in detail, such as [9] and [10], making it difficult to assess the strength of their validity. The lack of discussion about system interoperability and cross-platform data integration is still an issue in many articles. Mixed-methods based evaluative study to assess the effectiveness of the implementation of a holistic recording and reporting system. Development of data interoperability model between local system (Puskesmas/RS) and national system (SATUSEHAT, ASIK). Experiment the application of new technologies such as IoT, AI, or blockchain on health reporting in the 3T region (lagging, leading, outermost). Test the validity and reliability of reporting data in the context of National Health Policy. Comparative research between regions with different geographic systems and conditions to see patterns of successful implementation.

This study reveals that the system of recording and reporting of medical records in health care facilities still faces significant obstacles. One of the main findings is that there are still many facilities that rely on manual recording. This manual system is prone to data loss, lack of accuracy of information, as well as low efficiency in administrative processes. This has an impact on delays in medical decision-making, which can ultimately affect the quality of care to patients. In addition, limited human resources is also a major problem. Many health workers do not have adequate training in the management of medical records, both in terms of recording and reporting. This lack of training causes the documentation process to often not be carried out thoroughly or according to established standards. Digitalization efforts

through the implementation of application-based systems such as ASIK show positive potential in improving the efficiency and accuracy of reporting. However, its implementation still faces obstacles, such as errors in filling in data, dependence on an unstable internet connection, and the development of an integration system between health care units. This condition causes the recorded information is not always delivered effectively and on time, especially for cross-unit coordination and external reporting needs. On the other hand, the reporting systems used by many health facilities are still not optimally integrated. This has resulted in duplication of data and difficulty in tracking patient service history, especially for patients who move between health facilities without a systematic reporting mechanism. Some hospitals have started using web-based reporting systems, but their implementation is still limited and not fully connected to regional and National Health Information Systems. Another problem is the lack of awareness and involvement of all medical personnel in the documentation process. Not all medical staff get an adequate understanding of the importance of medical records as a basis for clinical and managerial decision-making. Even in some cases, partner physicians do not fully participate in the reporting process, resulting in incomplete or inaccurate medical records. This study highlights the importance of comprehensive improvements to the system of documentation and reporting of medical records. Increasing the capacity of human resources through continuous training, the development of integrated and technology-based health information systems, and strengthening policies and regulations are strategic steps that need to be taken immediately. With improvements in these aspects, it is expected that the quality of medical data produced will be more accurate and can be used optimally to improve the quality of Health Services.

Based on the articles with codes [2], [6], [8] (Recording System) and [3], [4], [8] (Reporting System), there are several similarities and differences that can be identified. The similarity among the three journals is their focus on evaluating recording and reporting systems in health services, whether in community health centers, hospitals, or clinics. All three aim to improve the efficiency, accuracy, and quality of health information through the application of information technology and better systems. Additionally, the research in these journals involves evaluating technical and human aspects, such as training for personnel and the technology infrastructure used. However, there are significant differences in focus and methods used. The first journal focuses on the implementation of a medical record information system at

Abata Farma Clinic using a Waterfall development approach. The second journal highlights the evaluation of the ASIK health application using the PIECES method to detect non-communicable diseases in the city of Denpasar. Meanwhile, the third journal discusses the evaluation of the recording and reporting system for tuberculosis cases at Syarif Hidayatullah Hospital using a fishbone diagram to analyze the causes of problems.

Other differences are also evident in the types of data evaluated, the variables used, as well as the scope of the population and research areas of each journal. This indicates a variation in approaches to the management and evaluation of health information systems across different types of healthcare facilities. The medical record recording and reporting system in healthcare facilities (fasyankes) plays an important role in supporting effective and efficient healthcare services. A good medical record recording and reporting system is essential to ensure that patients' medical information is recorded completely, accurately, and can be accessed by medical personnel. The medical record recording system can be done manually or electronically. However, this study shows that many fasyankes still rely on manual systems, which are prone to data loss, inefficient, and difficult to analyze. On the other hand, the implementation of electronic systems such as the ASIK application introduced by the Ministry of Health shows potential in facilitating recording and reporting, although it still faces various technical challenges such as frequent system errors and a lack of adequate evaluation.

In the aspect of medical record reporting, it was found that the reporting process in health facilities is often not well integrated. This results in data duplication and difficulties in tracking patients who move between healthcare services without notification. Some hospitals have begun using more effective and efficient web-based systems, although they are not yet fully integrated with local health services. Another challenge is the lack of training for staff responsible for reporting, leading to delays in the reporting process and the data produced not always being accurate.

The lack of outreach regarding the importance of medical record documentation is also an issue found in this study. In some hospitals, not all medical staff receive adequate training, causing medical record documentation to often be suboptimal. This situation is exacerbated by the low commitment of some partner doctors who are not fully involved in the patient documentation and reporting process.

This study highlights the need for significant improvements in the medical

record documentation and reporting system in health facilities. The development of an integrated system, enhanced training for medical staff, and better utilization of information technology are essential. With these improvements, it is hoped that the medical record data produced can be more accurate, complete, and useful for decision-making in enhancing the quality of healthcare services.

## CONCLUSION & SUGGESTION

The conclusion of the journal "Analysis of Medical Record Documentation and Reporting in Health Facilities" is that the documentation and reporting system of medical records plays a crucial role in improving the quality of health services in health facilities. A good implementation of this system can ensure accurate, complete, and accessible medical information to support clinical and managerial decision-making. However, there are various challenges still faced, such as irregularities in manual documentation, lack of integration of health information systems, and the need for training for healthcare personnel in using digital systems. To address these challenges, there is a need for capacity building of human resources, development of integrated technology-based systems, and strengthening management commitment to support efficient and standardized documentation and reporting processes.

In this research, special attention is needed regarding the quality of data generated from the recording process. Complete and accurate data not only supports medical decision-making but also ensures effective reporting to stakeholders. The use of information technology, such as web-based systems that have started to be implemented in several health facilities, should continue to be encouraged and evaluated periodically. Training for healthcare personnel in the recording and reporting process needs to be strengthened. Additionally, aspects of patient data protection also become an important concern, especially in electronic-based systems.

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