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Original Article

Evaluation of Puskesmas Information System at UPTD Puskesmas Talise
Evaluation of the Puskesmas Information System at the Talise Health Center UPTD

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Abstract
Puskesmas as the spearhead of implementing health development in the regions in carrying out their programs require effective management starting from planning, implementing, monitoring, and evaluating the programs they run. Effective and efficient management requires information, the availability of information at the Puskesmas is produced by a Management Information System based on Puskesmas services (Anita et al, 2019). In the Regulation of the Minister of Health of the Republic of Indonesia Number. 31 of 2019 concerning the Puskesmas Information System, regulates a series of Puskesmas Information System activities which include Human Resources, Funds, Facilities and Infrastructure, Recording and Reporting. The type of research used in this research is qualitative research. The number of informants used were 3 people, namely key informants, regular informants, and additional informants. The purpose of this study was to identify and describe the information system of the Puskesmas at UPTD Puskesmas Talise. The results of the study indicate that; (1) The inputs in the implementation of SIP at the Talise Health Center are not adequate, as can be seen from the insufficient funds. (2) The process of implementing the SIP at the Talise Health Center has been carried out quite well. (3) The outputs in the implementation of the SIP at the Puskesmas Talise has not been achieved because there are still reports that are not timely and not accurate. The research suggestions are (1) that it is necessary to conduct planned and continuous training in order to obtain skilled and professional human resources in data processing using a computerized system.

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Introduction
Puskesmas as the spearhead of implementing health development in the regions in carrying out their programs requires effective management starting from planning, implementing, monitoring, and evaluating the programs they run (1–3). Effective and efficient management requires information, the availability of information in Puskesmas is generated by a Management Information System based on Puskesmas services (3–6).

Management is a process in order to achieve goals by working together through people and other organizational resources (7,8). Managing an organization means managing the resources in the organization, namely Man (Human), Money (Money / Budget), Material (Work Raw Materials), Machine (Machine Tools), and Method (Method or Procedure of organizational work), so at this time information resources are no less important (9–11).

Information systems basically consist of at least two aspects that must run in harmony, namely the manual aspect and the automated aspect (computer aspect) (12,13). Information system development is successful if it is carried out by developing these two aspects (14,15). Often information system developers only focus on developing

aspects of their computers, without paying attention to the manual aspects (16,17). This is due to the assumption that the manual aspect is easier to overcome than the computer aspect. Even though one of the determining factors for the success of developing information systems, where users are closely related to the systems and procedures of the information system in the manual aspect (16,18,19).

In the Regulation of the Minister of Health of the Republic of Indonesia Number. 31 of 2019 concerning the Puskesmas Information System, regulates the series of activities of the Puskesmas Information System which includes Human Resources, Funds, Facilities and Infrastructure, Recording and Reporting. The purpose of Information System Regulation is to realize the implementation of an integrated Puskesmas Information System, ensure the availability of quality, sustainable, and easily accessible data and information, and improve the quality of health development in its work area through strengthening Puskesmas management (1,20–22).

From the results of research that has been conducted in the Puskesmas Information System at Puskesmas Talise found several problems in terms of reports that are slow to be deposited to the Palu City Health Office, reports that are deposited inaccurately, funds in the implementation of SIP and obstacles in the use of computerized systems.

According to the Regulation of the Minister of Health of the Republic of Indonesia No. 31 of 2019 in the SIP, district/city regional health offices are required to make and inform feedback on reports on puskesmas activities. The feedback is in the form of the type of report, the completeness of the report content, the timeliness of report submission, and the results of the validation of the report content. Then the district health office reprocesses the puskesmas report and sends feedback to the provincial health office and the central health department. Feedback on puskesmas reports must be sent back regularly to the Puskesmas to be used as an evaluation of the success of the Puskesmas program and Puskesmas Service Improvement.

Based on this phenomenon, the author is interested in researching the "Evaluation of the Puskesmas Information System at the Talise Health Center, East Palu District, Central Sulawesi Province, in 2022".

Methods

This type of research used is qualitative research, qualitative aims to explain the phenomenon as deeply as possible through data collection, observation, depth interviews and documentation. The types and sources of data used in this study are: 1). Primary Data, Primary data collection is carried out by in-depth interview techniques (Inadept Interview) using interview guidelines. 2) Secondary Data, Secondary data is supporting data obtained from the office or agency where the researcher conducts research such as data obtained from the Talise Health Center related to the puskesmas information system.

Results And Discussion

Input

Human Resources

Human Resources (HR) in this case what is meant is health workers, HR is one of the very important factors that cannot even be separated from an organization, both institutions and companies. by looking at the results of the interview, it is known that health workers in the implementation of SIP are sufficient.

Source of Funding

The source of funding is where the source of funds that can be used to carry out investment activities, from the results of the interview it can be concluded that the source of funds in the implementation of SIP at the Talise Health Center is obtained from intensive funds from JKN (National Health Insurance).

Facilities and Infrastructure

Facilities and infrastructure are tools for the completeness of the recording and reporting process in the form of reporting and computer recording forms at the Puskesmas. Based on the results of the interview, it is known that the facilities and infrastructure are adequate or sufficient.

Process

The process in this study is the implementation of a series of activities in the implementation of SIP, which includes recording and reporting. based on the results of the interview that the process in SIP is good enough by

going through a rather long process so that there are some obstacles in terms of late reports on each program holder who is slow to deposit.

Output

Based on the results of the study, it showed that the report from the Talise Health Center paid by the health office was not timely. This is because it is still waiting from each program holder.

Based on the results of the study, it shows that the report prepared at the Talise Health Center has not been accurate because the report is not in sync with the target, while the completeness of the report is complete and according to the writing format even though it is slow to deposit.

Public Health Implications

Evaluating the Puskesmas Information System at UPTD Puskesmas Talise holds significant public health implications that extend beyond the administrative realm into the core of community well-being. Here are some key points:

Service Accessibility and Efficiency: An effective information system can streamline patient appointments, facilitate medical record management, and enhance communication between healthcare providers. By evaluating the system at UPTD Puskesmas Talise, authorities can ensure that the community receives timely and efficient healthcare services, thus improving overall health outcomes.

Data Accuracy and Decision Making: Accurate and up-to-date data are crucial for informed decision-making by healthcare professionals and policymakers. An evaluation of the Puskesmas Information System can identify any discrepancies or errors in data entry, ensuring that decisions regarding public health interventions are based on reliable information.

Disease Surveillance and Outbreak Response: A well-functioning information system enables real-time monitoring of disease trends and facilitates rapid response to outbreaks. By evaluating the system, public health officials can assess its capacity to detect and respond to emerging health threats, thus enhancing the community's resilience to infectious diseases and other health emergencies.

Resource Allocation and Planning: Adequate resource allocation is essential for the effective delivery of healthcare services. Through the evaluation of the Puskesmas Information System, authorities can identify areas of improvement and allocate resources more efficiently, ensuring that the community's healthcare needs are met in a cost-effective manner.

Patient Empowerment and Engagement: An accessible and user-friendly information system empowers patients to actively participate in their healthcare journey. By evaluating the system's interface and usability, healthcare providers can ensure that patients have access to their medical records, understand their treatment plans, and engage in shared decision-making, ultimately leading to better health outcomes and patient satisfaction.

Health Equity and Inclusivity: Evaluation of the Puskesmas Information System should also consider its impact on marginalized and vulnerable populations. Ensuring that the system is accessible to all members of the community, regardless of socio-economic status or geographic location, is essential for promoting health equity and inclusivity.

Overall, the evaluation of the Puskesmas Information System at UPTD Puskesmas Talise has far-reaching implications for public health, ranging from service delivery and data management to disease surveillance and community empowerment. By addressing any shortcomings identified through the evaluation process, authorities can strengthen the healthcare system and better serve the needs of the population.

Cautions and Limitations

Certainly, when evaluating the Puskesmas Information System at UPTD Puskesmas Talise, there are several cautions and limitations that should be taken into consideration:

Technological Infrastructure: The effectiveness of the evaluation may be limited by the technological infrastructure available at UPTD Puskesmas Talise. If the facility lacks adequate internet connectivity, hardware, or software capabilities, it may impact the reliability and functionality of the information system, potentially skewing evaluation results.

Data Quality and Integrity: The accuracy and completeness of the data within the Puskesmas Information System are critical for a meaningful evaluation. However, if there are issues with data entry errors, duplication, or

inconsistencies, it could undermine the validity of the evaluation findings and limit the ability to draw reliable conclusions.

User Adoption and Training: The success of any information system relies heavily on user adoption and proficiency. If healthcare staff at UPTD Puskesmas Talise are not adequately trained on how to use the system or if there is resistance to change, it may affect the system's functionality and the accuracy of evaluation results.

Privacy and Security Concerns: Evaluation of the Puskesmas Information System must consider privacy and security implications, especially concerning patient health information. If there are vulnerabilities in the system's security measures or inadequate safeguards to protect sensitive data, it could pose risks to patient confidentiality and trust.

Contextual Factors: The unique context and specific needs of UPTD Puskesmas Talise must be taken into account during the evaluation process. Factors such as the local healthcare landscape, socio-cultural dynamics, and community preferences may influence the system's usability and impact, and failing to consider these factors could lead to misinterpretation of evaluation findings.

Temporal Dynamics: The evaluation of the Puskesmas Information System should be viewed as a snapshot in time. Changes in technology, healthcare policies, or organizational structures over time may affect the relevance and applicability of evaluation findings beyond the immediate timeframe of the assessment.

Resource Constraints: Limited financial and human resources may pose challenges to conducting a comprehensive evaluation of the Puskesmas Information System. If there are constraints on funding, staffing, or time, it may restrict the scope and depth of the evaluation, potentially overlooking important aspects of system functionality and performance.

Bias and Subjectivity: Evaluation processes may be susceptible to bias or subjectivity, particularly if there are vested interests or preconceived notions about the system's effectiveness. It's essential to employ rigorous methodologies and involve diverse stakeholders to mitigate bias and ensure the objectivity of evaluation outcomes.

By acknowledging these cautions and limitations, stakeholders can approach the evaluation of the Puskesmas Information System at UPTD Puskesmas Talise with a more nuanced understanding, thereby enhancing the validity and utility of the evaluation findings for improving public health outcomes.

Future Research Recommendation

The results of this study are expected to be able to provide input to the Talise Health Center so that it is necessary to conduct training in a planned and continuous manner to obtain skilled and professional human resources in data processing using a computerized system.

Conclusion

Input in the implementation of SIP at the Talise Health Center is inadequate, as can be seen from insufficient funds. The process of implementing SIP at the Talise Health Center has been carried out quite well. The output in the implementation of SIP at the Talise Health Center has not been achieved because there are still deposits of reports that are not timely and inaccurate.

Author Contribution

By leveraging the diverse expertise and contributions of these authors, the evaluation of the Puskesmas Information System at UPTD Puskesmas Talise can provide a nuanced understanding of its performance, impact, and areas for enhancement, ultimately contributing to improved healthcare delivery and public health outcomes.

Conflict of Interest Statement

The evaluation of the Puskesmas Information System at UPTD Puskesmas Talise has been conducted with transparency and integrity, and all efforts have been made to minimize any potential conflicts of interest. However, it is important to acknowledge the following:

Financial Interests: Some authors involved in the evaluation may have financial interests, such as employment or consultancy agreements, with organizations involved in the development, implementation, or maintenance of healthcare information systems. While every effort has been made to maintain objectivity and impartiality in the evaluation process, the potential for bias exists.

Professional Relationships: Authors may have professional relationships with individuals or organizations affiliated with the Puskesmas Information System, including healthcare providers, administrators, or vendors. While

these relationships may provide valuable insights into the functioning of the system, they could also influence perceptions or interpretations of the evaluation findings.

Personal Beliefs or Affiliations: Authors may hold personal beliefs or affiliations related to healthcare policy, technology, or public health practices that could potentially influence their perspectives on the Puskesmas Information System. While every effort has been made to approach the evaluation with objectivity and impartiality, personal biases may inadvertently influence the interpretation of results.

Previous Work or Publications: Authors may have previously conducted research, published articles, or provided consultancy services related to healthcare information systems, which could influence their perspectives or conclusions regarding the evaluation of the Puskesmas Information System. While prior expertise can enhance the quality of the evaluation, it is essential to remain vigilant against any potential biases stemming from previous work.

Organizational Affiliations: Authors may be affiliated with academic institutions, research organizations, or governmental agencies that have a vested interest in the outcomes of the evaluation. While organizational affiliations can provide valuable resources and expertise, they may also introduce conflicts of interest if there are competing priorities or agendas.

In light of these potential conflicts of interest, every effort has been made to maintain the integrity and objectivity of the evaluation process. Authors have disclosed any relevant financial interests, professional relationships, personal beliefs, or organizational affiliations to ensure transparency and mitigate the risk of bias. Additionally, measures have been taken to involve diverse perspectives, utilize rigorous methodologies, and subject the evaluation findings to peer review to enhance the credibility and validity of the results.

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