

ANALYSIS OF HUMAN RESOURCE NEEDS FOR MEDICAL RECORDS OFFICERS USING THE (ABK Kes) METHOD AT FAGA HUSADA GENERAL HOSPITAL

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ABSTRACT

SDMK requirement planning is a systematic process of determining the number, type, and qualifications of SDMKS needed in accordance with the conditions of a region in order to achieve health development goals. The background of this study is based on the increasing number of patient visits and the high workload of medical record officers who perform various tasks. This study used a quantitative descriptive approach and was conducted from March to July 2025. Data collection techniques were carried out through observation, interviews, and documentation studies. The results showed that the available working time (WKT) was 98,640 minutes per year, and the number of activities achieved was 3,283 patient visits per year. Based on the ABK-Kes method calculation, the medical record staff requirement is 2 people. The conclusion of this study is that it is expected to provide a reference in planning human resource requirements and improving the efficiency and quality of medical record services at Faga Husada General Hospital.

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INTRODUCTION

Hospitals are healthcare institutions that provide comprehensive services, ranging from inpatient care, outpatient care, to emergency care, and their existence significantly impacts the improvement of public health (Neng Sari Rubiyanti, 2023). The provision of these services requires a well-organized system, one of which is medical record management (Rika et al., 2021). Electronic medical records are currently the solution for recording patient history, laboratory results, allergies, and supporting clinical decision-making (Edward Shortliffe in RME). In the context of health development, the availability of sufficient, evenly distributed, and qualified health human resources (HHR) is a major factor in optimizing health information services (Sujitno et al., 2025). Therefore, HHR planning based on real needs is an important strategy in supporting health development (Arribe et al., 2023).

However, the challenge faced by health care facilities is the limited number of medical record staff compared to the increasing workload. Patient registration as the starting point of service is a critical point that often experiences delays due to a lack of medical record staff (Sulistiyowati & Rosa, 2023). Inefficient administrative processes have the potential to reduce service quality, especially when the hospital management information system (SIMRS) demands high accuracy and competence from its operators (Mutiya & Suprayoga, 2022). High workloads can lead to recording errors and data duplication, which ultimately impact the quality of health information. This

situation highlights the need for a systematic analysis of human resource requirements to ensure that medical record staff planning aligns with the realities of service delivery.

The urgency of this research is further reinforced by the existence of regulations from the Ministry of Health. Minister of Health Regulation Number 33 of 2015 recommends the use of the Health Workload Analysis (ABK-Kes) method in health workforce planning because it is considered capable of reflecting workforce needs based on actual workload. This method calculates SDM requirements based on work volume, time norms, and operational standards for services in health facilities (Nurhidayati et al., 2024). By using the ABK-Kes approach, institutions can adjust the number of personnel needed to the actual workload, rather than just based on administrative estimates (Sujitno et al., 2025). This makes workforce planning more objective, efficient, and aligned with service needs. Such analysis is particularly important in hospitals facing patient surges but lacking corresponding increases in medical record personnel.

Previous studies have proven the effectiveness of the ABK-Kes method in calculating healthcare workforce needs. Amirah Syafiqah Zahra, Lily Widjaja, Laela Indawati,(2023) researched the analysis of medical record staff needs in hospitals and found the necessity of adjusting workforce numbers. Research by Mey Chrismawanti,(2020) at Darmayu Hospital in Ponorogo also revealed that the ABK-Kes method can be used to evaluate shortages in medical record personnel. Putri & Hidayati,(2021) and Noor et al.,(2023) emphasize the importance of adding outpatient registration staff to balance the workload. Similar findings are also described by Talib,(2018) that filing staff have an excessive workload compared to the number of available personnel. Thus, these studies show a consistent pattern of additional personnel needs in various health facilities.

In addition, recent studies show variations in results that enrich the study. Widhiastuti et al.,(2022) found that the Polanharjo Community Health Center needs two additional registration officers to increase work productivity. Putri & Hidayati,(2021) analyzed the need for medical record personnel in private clinics and emphasized that the ABK-Kes method is the basis for assessing human resource shortages. Gultom & Sihotang,(2020) revealed the need for additional staff at the South Buton District Hospital to improve the quality of outpatient registration services. Kristin,(2023) also stated that the Bareng Malang Community Health Center needs additional staff to make administrative services more efficient. Therefore, this study presents a novelty by comprehensively analyzing the need for medical record personnel at Faga Husada General Hospital using the ABK-Kes method, with the hope that it can serve as a reference for health human resource planning in the Baubau area and its surroundings.

METHOD

This study is a quantitative descriptive study that aims to analyze medical record personnel needs based on actual workload using the Health Workload Analysis (ABK-Kes) method. The data used in this study consisted of primary data obtained through direct observation of medical record officers' activities and structured interviews with the head of the unit, as well as secondary data in the form of documents on the number of patient visits, a list of medical record personnel, and standard operating procedures applicable in the hospital. The population in this study was all medical record personnel working in the Medical Records Department of Faga Husada General Hospital. Since there were only nine medical record personnel, the entire population was used as the research sample, making this a census study.

The research was conducted at Faga Husada General Hospital in Baubau City, Southeast Sulawesi, from March to July 2025. The sampling technique used was total sampling, considering that the number of medical record staff was relatively small and allowed for comprehensive observation. All respondents were observed in their work activities during normal working hours, which lasted six working days a week in accordance with hospital regulations. Thus, the data obtained truly reflected the actual workload of each medical record staff member.

The data collection technique was carried out in several stages. First, direct observation of the work activities of medical recorders in various units, including patient registration, file storage, assembling, analysis, coding, and supporting tasks. Second, structured interviews were conducted to reinforce the observation results regarding the distribution of tasks and obstacles faced by officers. Third, documentation was used to obtain data on the number of patient visits, employee absences, and relevant internal regulations. All of these techniques were used in triangulation so that the data obtained was more valid.

The research instruments used were work time observation sheets, activity checklists, and interview guidelines compiled based on the Ministry of Health's ABK-Kes guidelines. These instruments served to record the time required for each type of activity and identify the volume of work handled by each medical recorder. The collected data was then processed with reference to applicable time norms and workload standards.

The data analysis technique used the Health Workload Analysis (ABK-Kes) method, which includes several stages, namely calculating the Available Working Time (WKT) per year, determining the Workload Standard (SBK) based on the average time to complete the main activities, calculating the Supporting Task Standard (STP), and then determining the adjustment factor. The final calculation results are used to determine the ideal number of medical record personnel needed at the Medical Records Unit of Faga Husada General Hospital. With this approach, the research results are expected to provide a proportional picture of personnel needs based on actual workloads.

RESULTS & DISCUSSION

This study was conducted at the Medical Records Department of Faga Husada General Hospital, a private hospital that plays an important role in providing health services to the people of Baubau City and its surroundings. The medical records department at this hospital has a very strategic role, not only in storing health documents, but also as a center for providing data used in medical services, hospital management, research, and policy making. The existence of medical record personnel is one of the main pillars in supporting the achievement of accurate, fast, and accountable health information services. However, conditions in the field show that the number of medical record personnel is not fully balanced with the workload that must be handled. At the time of the study, there were nine medical record personnel with different educational backgrounds. This distribution is shown in Table 1.

Table 1. Healthcare Facilities and Types of Medical Records Personnel at Faga Husada General Hospital

Healthcare Facility	Unit Installation	Type of SDM K	SDM K Section
Faga Husada Hospital	Medical Records Installation	Medical Records Clerk at Faga Husada General Hospital	Registration Officer Medical Records Room Staff

Source: Primary Data, 2025

The results of Table 1 show a gap between the number of personnel and their educational qualifications. There are fewer personnel with a background in medical records than non-medical records personnel. This condition has an impact on uneven technical competence among existing personnel. Some personnel have to perform various tasks at once, such as patient registration, assembling, analysis, coding, and file storage. According to Sulistyowati & Rosa,(2023) , the competence of personnel that is not in line with their field of work can affect the quality of data recording, which ultimately reduces the quality of medical records as legal documents and sources of health information. This is also confirmed by Sujitno et al.,(2025) which states that the adequacy of the number and qualifications of health personnel greatly determines the effectiveness of hospital services.

The initial step in the Health Workload Analysis (ABK-Kes) method is to calculate Available Working Time (WKT). WKT is the effective working time that personnel can use to complete their work during one year. This calculation takes into account the number of working days minus holidays, leave, training, and average absenteeism. At Faga Husada General Hospital, the calculation results show that medical record personnel have WKT as shown in Table 2.

Table 2. Determining Available Working Time (AWT)

No	Code	Component	Description	Formula	Amount	Status
	A	B	C	D	E	F
1	A	Working Days	6 Working Days/mg		312 Days	Days/Year
2	B	Employee Leave	14 Days		14	Days/Year
3	C	National Holidays	17 Days		17	Days/Year
4	D	Attending Training	Average per Year		4	Days/quarter
5	E	Absent (sick, etc.)	Average per year		3	Days/Year
6	F	Working Hours per Week	Cooperation 68/1995	No.	37.5	Hours/Week

7	G	Effective Working Hours (EWH)	Ministry of Administrative and Bureaucratic Reform Regulation No. 26/2011	75% X 37.5	28,125	Hours/Month
8	WK	Working Hours (per week)	6 Days/Week	E8/6	4,688	Hours/Day
9	WKT	Available Working Hours (days)	6 Days/Week		274	Days/Year
10	WKT	Available Working Hours (hours)	6 Days/Hours 274 x 6 Hours		1,644	Hours/Year
Available Working Time (WKT)					1,644	Hours/Year
Available Working Time (AWT)					98,640	Minutes/Year

Source: Secondary Data, 2025

Based on the table, it is known that the effective working time of medical record personnel is 98,640 minutes per year. This value is an important basis for determining workload standards. Putri & Hidayati,(2021) emphasize that WKT calculation is a critical stage in ABK-Kes because it provides a realistic picture of the capacity of personnel to complete tasks. If WKT is not calculated correctly, the workforce requirement analysis has the potential to produce estimates that do not match the actual conditions. Therefore, the results of the WKT calculation confirm that each medical record staff member at Faga Husada General Hospital has limited annual work capacity, so workforce planning must take this figure into account.

The next stage is to identify the workload components and time norms. The workload components include all the main activities carried out by medical record personnel, ranging from patient registration, assembling, completeness analysis, diagnosis coding, to the storage of medical records. The time norms are determined through direct observation of the average time required to complete each activity. Details of the observation results are presented in Table 3.

Table 3. Workload Components and Time Standards

Type of Task	Activity	Time Standard
Main Task	Registration of New Outpatient Patients	14 Minutes
	Interviewing patients and writing prescriptions	3 minutes
	Creating a BRM (Medical Record File) number	2
	Writing in the <i>register</i> book	1.5 minutes
	Checking the patient's BPJS number	2 minutes
	Fingerprint (<i>Finjer</i>)	1.5 minutes
	Entering patient data into SIMRS	3 minutes
	Directing to the intended clinic	1 minute
	Registration for Outpatient Care for Existing Patients	10.5 minutes
	Interviewing the patient and writing on the prescription form	2.5 minutes
	Writing in the <i>register</i> book	1.5 minutes
	Checking the patient's BPJS number	2 minutes
	Entering patient data into the SIMRS application	2.5 minutes
	<i>Filing</i> (storage)	2 minutes
	Distributor	5 minutes
	Logistics	36 Minutes
	Analysis	10 Minutes
	Assembly	6 Minutes
	Coding	5 Minutes
	Monthly Meeting	120 Minutes
Supporting Tasks	Training	480
		Minutes/Year

Source: Secondary Data, 2025

The data in Table 3 shows that patient registration and coding are the most time-consuming activities compared to assembling or completeness analysis. This is understandable because registration involves direct interaction with patients and filling in initial data that must be accurate, while coding requires a detailed understanding of diagnoses and medical procedures. According to Amirah Syafiqah Zahra, Lily Widjaja, Laela Indawati,(2023) , registration and coding are highly complex tasks in medical record management, so they tend to consume more time. This fact reinforces the importance of considering time norms in workload analysis.

From the calculated time norms, the Standard Workload (SBK) is determined by dividing the WKT by the average time norm for each activity. The SBK calculation results are presented in Table 4.

Table 4. Workload Standards for Medical Records Personnel

Type of Task	Workload Component	Time Norm	WKT Minutes	SBK (4/3)
1	2	3	4	5
Main Tasks	New Patient Registration	14 Minutes/Patient	98,640	7,045
	Registration of Existing Patients	10.5 Minutes/Patient	98,640	9,394
	Distributor	5 Minutes/Patient	98,640	19,728
	Logistics	15 Minutes/Lesson	98,640	6,576
	Analysis	10 Minutes/Patient	98,640	9,864
	Assembling	6 Minutes/Patient	98,640	16,440
	Coding	5 Minutes/Patient	98,640	19,728

Source: Primary Data, 2025

The SBK obtained describes the maximum capacity of a medical recorder in completing certain activities during a year. Mey Chrismawanti,(2020) states that SBK is an important indicator for assessing work efficiency and for assessing the extent to which personnel can meet the existing workload. If the actual amount of work exceeds the SBK value, the workload is considered too high and indicates a shortage of personnel. Thus, SBK is an important benchmark in determining personnel needs in the medical records department of Faga Husada General Hospital.

In addition to their primary activities, medical record personnel also perform various supporting tasks such as attending meetings, training, or performing other administrative activities outside of their primary duties. For this reason, the ABK-Kes method calculates the Supporting Task Standard (STP) to ensure a more accurate analysis of staffing needs. The results of the STP calculation are shown in Table 5.

Table 5. Supporting Task Standards and Supporting Task Factors

Type of Task	Activity	Average Time	Activity Time (Minutes/Year)	WKT (Minutes/Year)	FTP
1	2	3	4	5	7=5/6x100
Supporting Tasks	Monthly Meeting	120 minutes/month	1,440 minutes/year	98,640	1.45
	Attending Training	480 minutes/year	480 min/year	98,640	0.48
Supporting Task Factor in % = 1.93					
Supporting Task Standard (STP) = 1/(1-FTP/100)					
= 0.98					
= 1.02					

Source: Primary Data, 2025

Table 5 shows that approximately 15% of effective working time is absorbed by performing support tasks. If this factor is not taken into account, the number of personnel required will be calculated to be less than the actual requirement. Talib,(2018) emphasizes that ignoring support activities can cause bias in calculating personnel requirements, as healthcare workers always have administrative duties outside of their main job. Therefore, taking STP into account is crucial for obtaining accurate analysis results.

To obtain an overview of the actual workload, an analysis was conducted on the number of patient visits. Data on the number of outpatients and inpatients at Faga Husada General Hospital from January to December 2024 is presented in Table 6.

Table 6. Number of Patients from January to December 2024 at Faga Husada General Hospital

No	Month	Patients
1	January	310
2	February	166
3	March	303
4	April	292
5	May	251
6	June	270

7	July	355
8	August	302
9	September	288
10	October	268
11	November	256
12	December	222
Total		3283

Source: Secondary Data, 2025

Based on Table 6, the number of patient visits during 2024 reached 3,283 people, or an average of 50–55 patients per day. This figure shows an upward trend compared to the previous year. This surge in the number of patients has increased the workload of medical records staff, especially in the registration and processing of patient documents. According to Widhiastuti et al. ((2022) , an increase in the number of patients without an adjustment in the number of staff will cause delays in service. Amarkani Aslan (2023) also found that the shortage of medical record staff at the South Buton District Hospital had an impact on delays in outpatient registration services and a decline in the quality of medical records.

The final stage in the ABK-Kes method is to calculate the overall staffing needs by considering the results of WKT, SBK, STP, and the number of patients. The details of the calculation results for medical record staffing needs at Faga Husada General Hospital are presented in Table 7.

Table 7. Calculating Health Resource Needs per Institution/Health Facility

Type of Task	Activity	Achievement in 1 Year	SBK	Human Resource Requirements (3/4)
1	2	3	4	5
Main Duties	New Patient Registration	3283	7,045	0.46
	Registration of Existing Patients	3283	9,394	0.34
	Distributor	3,283	19,728	0.16
	Logistics	3283	6,576	0.49
	Analysis	3283	9,864	0.33
	Assembling	3283	16,440	0.19
	Coding	3283	19,728	0.16
JKT = Total Core Workforce Requirements				2.13
Supporting Tasks	Supporting Task Standard			1.02
Total Human Resource Requirements (JKT x STP)				2.13 x 1.02 = 2.17
Rounding				2

Source: Primary Data, 2025

Based on the results in Table 7, it is known that the current number of medical record staff is 9, while the ideal requirement based on the ABK-Kes calculation is 11. Thus, there is a shortage of 2 medical record staff. This shortage causes an increased workload for existing staff, which risks delays in service, errors in recording, and a decline in the quality of medical record data. (2023)This finding is consistent with the research by Kristin(2023) at the Bareng Malang Community Health Center, which shows that a shortage of administrative staff leads to a decrease in service efficiency. Noor et al.ADDIN CSL_CITATION {"citationItems":[{"id":"ITEM-1","itemData":{"DOI":"10.47701/infokes.v13i1.2534","ISSN":"2086-2628","abstract":"ABK Kes is a method of calculating the need for health human resources based on the workload carried out by each type of health human resource according to their main tasks and functions. There is a double job, the amount of data that needs to be processed results in reports that cannot be reported properly, on time and officers cannot carry out work in accordance with the description of their main tasks and functions. The purpose of this study was to determine the needs of the workforce with the health workload analysis method (ABK Kes) in the medical record unit reporting section at Muhammadiyah Lamongan Hospital.The subjects in this study were reporting officers. While the object in this study is the workload of reporting officers. Data collection methods are by interview and observation. Data processing is done by collecting, editing, tabulating and presenting data in a qualitative descriptive form. The results of this study are health facilities of the general hospital type and the type of health human resources reporting section, the available WKT is 1240 hours/year and 74400 minutes/year, the workload standard is 538,800, the FTP value is 1.91% and the STP value is 1.13%, and the results of

the calculation of the labor requirements for the reporting section of the ABK Kes method were 6 people. The conclusion of this study is that the reporting section's need for health human resources is 6 health human resources currently only 3 health human resources are available. The author suggests that it is better to add 3 health human resources."

"author":[{"dropping-particle":"","family":"Noor","given":"Hesty Latifa","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Qomariyah","given":"Siti Nur","non-dropping-particle":"","parse-names":false,"suffix":""},{"dropping-particle":"","family":"Nugraheni","given":"Sri Wahyuningsih","non-dropping-particle":"","parse-names":false,"suffix":""}],

"container-title":"Infokes: Jurnal Ilmiah Rekam Medis dan Informatika Kesehatan","id":"ITEM-1","issue":"1","issued":{"date-parts":["2023"]},"page":"35-39","title":"Analisis Kebutuhan Tenaga Kerja Bagian Pelaporan Rumah Sakit Menggunakan Metode Analisis Beban Kerja Kesehatan (Abk Kes)","type":"article-journal","volume":"13"},"uris":["http://www.mendeley.com/documents/?uuid=2ad14b56-3753-47a0-bcd5-7f55e0ea82e9"]},"mendeley":{"formattedCitation":"(Noor et al., 2023)","manualFormatting":"Noor et al., (2023)","plainTextFormattedCitation":"(Noor et al., 2023)","previouslyFormattedCitation":"(Noor et al., 2023)"},"properties":{"noteIndex":0},"schema":"https://github.com/citation-style-language/schema/raw/master/csl-citation.json"}also state that staff limitations in the outpatient registration unit result in patient backlogs and decreased service satisfaction.

Overall, the results of this study confirm that Faga Husada General Hospital requires the addition of at least two medical record staff to achieve ideal conditions based on workload calculations. This staffing planning policy is important to support the continuity of administrative services and ensure the quality of medical records meets national standards. The Ministry of Health, through the Minister of Health Regulation No. 33 of 2015, also recommends the use of the ABK-Kes method for more objective health workforce planning. Thus, the findings of this study not only provide an overview of the actual conditions at Faga Husada General Hospital but also offer a scientific basis that hospital management can use in developing future strategies for medical record human resource development.

CONCLUSION

The results of the study using the Health Workload Analysis (ABK-Kes) method in the Medical Records Department of Faga Husada General Hospital show that the available working time (WKT) for medical records personnel is 98,640 minutes per year. Based on the calculation of workload components, time norms, workload standards (SBK), and supporting task factors (STP), the ideal number of medical record personnel required is 11 people. Meanwhile, the number of personnel available at the time of the study was only 9, resulting in a shortage of 2 medical record personnel. Thus, this study answers the objectives formulated in the introduction, namely to provide a proportional description of the need for medical record personnel at Faga Husada General Hospital to support the quality of hospital administration and health information services.

The limitations of this study are the variation in the competence of medical record personnel because not all officers have a background in medical record education, so that the measurement of working time for some activities is still influenced by individual experience factors. In addition, the study was only conducted within a certain period of time, so it does not fully reflect fluctuations in patient visits that may differ in other periods. The observation instrument also has limitations in capturing incidental non-technical activities, such as sudden meetings or activities outside the building. These constraints need to be considered in further research so that the analysis of human resource needs can be more comprehensive and representative.

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