

# OVERVIEW OF THE MEDICAL RECORDS DEPARTMENT STAFF REQUIREMENT BASED ON HEALTHCARE WORKLOAD ANALYSIS METHOD AT UNIVERSITAS SEBELAS MARETHOSPITAL SUKOHARJO IN 2023

Nopita Cahyaningrum<sup>1\*</sup>, Fitria Ika Wulandari<sup>2</sup>, Arif Zaenal Abidin<sup>3</sup>, Agita Nur Afitri<sup>4</sup>

Universitas Duta Bangsa<sup>1</sup>, Universitas Dian Nuswantoro<sup>2</sup>, Rumah Sakit UNS<sup>3</sup>, Universitas Duta Bangsa<sup>4</sup>

\*Correspondence Email : [nopita\\_cahya@udb.ac.id](mailto:nopita_cahya@udb.ac.id)

---

## ABSTRACT

*Universitas Sebelas Maret (UNS) Hospital currently employs 30 staff members in medical records department. The number of the staff exceeds the required workload. The objective of this research is to find out the requirement of medical records staff based on healthcare workload analysis method in UNS Hospital Sukoharjo. This research is a descriptive survey by implementing cross sectional approach. The samples taken are saturated samples. They are 30 staff members in medical records department. Data were collected through interviews and observations. The calculation of the requirement of medical records staff by implementing healthcare workload analysis method shows that 32 employees required in this department: 1 employee as a Head of Medical Records Deparment, 1 employee as a Registration Coordinator, 13 staff in Outpatient Services and Registration of Executive Patients and Online Patient, 4 employees in Emergency and Inpatient Services, 3 employees in Inpatient Assembly, and 4 employees in Outpatient Assembly and Inpatient/Outpatient Coding, and 6 employees in Medical Records Filing. In fact, there are currently 30 employees work in Medical Records Department of UNS Hospital, Sukoharjo. The result of healthcare workload analysis shows that this hospital needs 32 employees in this department. Therefore, it is suggested that the hospital should hire 2 more employees as staff members in Medical Records Department in order to effectively match the workload.*

---

## KEYWORDS

Employees Requirement, Medical Records Department, Healthcare Workload Analysis

---



This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International

---

## INTRODUCTION

Regulation of the Minister of Health of the Republic of Indonesia Number 3 2020 about Hospital Classification and Licenses Chapter 1 Verse 1 states that a hospital is a health service institution that provides complete individual health services, providing inpatient, outpatient and emergency services. A department in a hospital that has quite an important role is the medical records department.

The medical records department in a hospital is a department that organizes and manages medical records. According to Sudra (2017), the medical record department is divided into two units, namely the medical records data recording unit which is outside the medical records department and the data collection and processing unit which is inside the medical record department. To produce good and correct medical records, it is necessary to develop professional and productive health workers who have competencies in conducting medical records. The human resources available in the medical records department must also be balanced in order to achieve better quality of service. An insufficient number of health workers in the medical records department can increase the workload of employees which can result in hampered service to patients (Wirajaya & Nuraini, 2019).

In managing human resources properly, it is necessary to calculate the health workload analysis method to be more precise in calculating the workload of officers in the medical records department (Gemilang, 2015). Planning for the requirement of healthcare human resources based on the healthcare workload analysis method is a method of calculating required employees based on workload carried out by each type of healthcare human resource at each healthcare services facility in accordance with their duties, principles and functions (Ministry of Health of the Republic of Indonesia, 2015).

Based on a preliminary survey, the number of outpatient and inpatient visited UNS Hospital in 2020 was 97,368, consisting of 89,522 outpatients and 7,846 inpatients. In 2021 there was 113,212, consisting of 106,260 outpatients and 6,952 inpatients. In 2022 there was 133,542, consisting of 124,966 outpatients and 8,576 inpatients. The increasing number of patient visits is a factor in the increasing workload of medical record officers.

The problem found was that the workload of officers in Registration of Outpatient Services was quite high, this was due to the number of outpatient visited continuing to increase. Sometimes the executive registration officer had to help the outpatient registration because the number of visits per day was quite large and the officers were overwhelmed.

Based on the description above, the author is interested in conducting research at the UNS Hospital to calculate the requirements for employees at the medical records department based on the Healthcare Workload Analysis Method. The author took the title "Overview of the Medical Records Department Staff Requirement Based on Healthcare Workload Analysis Method at *Universitas Sebelas Maret* Hospital Sukoharjo in 2023".

## RESEARCH METHOD

This research is categorized as a descriptive survey. The data collection methods applied in this research are interviews and observation. The interview was aimed at employees at the registration unit, assembly unit, tools and equipment unit, coding unit, indexing unit, reporting unit, and filing unit. The observation was carried out by looking

directly, listening, recording the activities carried out by the employees at registration unit, assembly unit, tools and equipment unit, coding unit, indexing unit, reporting unit, and filing unit as well as recording the time of each activity. The approach used in this research is the Cross Sectional approach, namely research to study the dynamics of the correlation between risk factors and effects, by approaching, observing or collecting data at one time (point time approach), meaning that each research subject is only observed once and measurements are made on the character status or subject variables at the time of examination (Notoatmodjo, 2018). The population in this study were all 30 medical records officers at UNS Sukoharjo Hospital. The samples in this study were 30 medical records officers at UNS Sukoharjo Hospital. Sampling used a saturated sampling technique.

## **RESULT AND DISCUSSION**

(1) Determining Healthcare Facility and Types of Human Resources. In this research, healthcare facility is UNS Hospital Sukoharjo and the types of human resources are the head of medical records department, coordinator of registration unit, officers at outpatient unit, officers at executive patient and online finger registration unit, officers at emergency and inpatient unit, officers at inpatient assembly unit, officers at outpatient assembly and coding unit, and officers at filing unit. There are 30 officers as shown in the following table.

Table 2 Healthcare Facilities and Types of Human Resources

No	Unit/Section	Number of Officer
1	Head of medical records department	1
2	Coordinator of registration	1
3	Outpatient registration unit, executive patient registration and online finger registration unit	8
4	Emergency and inpatient registration unit	8
5	Inpatient assembly unit	2
6	Outpatient assembly unit and outpatient/inpatient coding unit	4
7	Filing unit	6

- (2) Determining Available Working Time. Available Working Time (AWT) is the time used by healthcare officers to carry out their duties and activities within a period of 1 (one) year. In calculating the requirement of human resources for this research, the AWT used is the AWT in accordance with the provisions of PERMENPAN-RB/No.1/2020/ concerning Guidelines for Job Analysis and Workload Analysis where AWT is 1,250 hours per year or 75,000 minutes per year for both 5 working days and 6 working days.
- (3) Determining Workload Components and Time Norm  
Based on the manual book of healthcare workload (2016), workload components include tasks and factual job descriptions which are carried out by certain healthcare officers in accordance with their defined responsibilities. This research shows the main duties and time norm of medical records unit.

Table 3 Workload Components and Time Norm

Sub Unit	Workload Components	Time Norms
A	Composing unit guideline	180 min/doc
	Carrying out planned coordination between sub-unit and head of the unit	90 min/report
	Composing unit standard operating procedure	45 min/report
	Proposing the requirements for unit services	60 min/request

	Preparing and managing shift service schedules according to applicable needs and regulations	90 min/sched.
	Composing proposal for required routine logistics required by the relevant unit	20 min/request
	Verifying the completeness of administration of permits, leave, and certificates	5 min/officer
	Preparing data for head of the unit	45 min/data
	Creating unit quality indicator reports	45 min/report
	Carrying out internal coordination of sub units	60 min/activity
	Carrying out incidental coordination between sub-units and head of unit	30 min/review
	Carrying out coordination of external services	15 min/activity
	Handling customer complaints	45 min/activity
	Carrying out work results assessments for subordinates	5 min/officer
	Composing an outbreak report to the District Health Office	30 min/report
	Assembling outpatient medical record documents	0.49 min/mrd
	Preparing weekly medical record reports	30 min/month
	Designing a new medical record form	30 min/mrd
	Revising the design of the medical record form	15 min/mrd
	Preparing monthly medical record reports	60 min/report
	Conducting outpatient coding and indexing	1.16 min/mrd
	Conducting inpatient coding and indexing	5.05 min/mrd
	Providing medical record lending services	1.40 min/mrd
	Processing SKM requests	10 min/mrd
	<u>Providing data requested for decision making process</u>	<u>9.51 min/researcher</u>
B	Coordination with registration officers	10 min/day
	Coordination between registration unit and other units	15 min/day
	Logistics calculations	30 min/mo.
	Making schedule	120 min/mo.
	Making reports	120 min/mo.
	Performance assessment	120 min/mo.
	Registering patients	2.29 min/pt.
C	Providing services of BPJS referral letter	1.52 min/pt.
	Providing service for online patient reservation	2.20 min/pt.
	Registering patients	2.29 min/pt.
	Providing BPJS patient referral letter services	1.52 min/pt.
	Serving online patient reservations	2.22 min/pt.
	Registering patients onsite	3.43 min/pt.
	Following up on medical record files	5.28 min/mrd
	Finger patients	0.47 min/pt.
	Online Registration	2.19 min/pt.
	Assembling and coding outpatients	0.33 min/mrd
D	Make special referrals for HD patients	2.17 min/pt.
	Registration of long-term non-insurance outpatient patient in the ER	0.50 min/pt.
	Registration of new non-insurance outpatient patient in the ER	1.25 min/pt.
	Registration of long-term outpatient patient with insurance in the ER	0.48 min/pt.
	Registration of new outpatient patient with insurance in the ER	1.25 min/pt.
E	Registration of national health insurance (new born babies)	3.13 min/pt.
	Following up on administrative completeness of ER/inpatient patients	3.06 min/pt.
	Registration of non-insured inpatient patients	4.21 min/pt.
F	Registration of insured inpatient patients	4.46 min/pt.
	Assembling inpatient files	09.03 min/mrd
	Completing inpatient documents	10.08 min/mrd
	Outpatient Assembling	0.49 min/mrd
	Outpatient Coding dan Indexing	1.16 min/mrd
	Inpatient Coding dan Indexing	5.05 min/mrd
	Lending medical record documents	1.40 min/mrd
	Reporting Covid	55.57 min/pt.
	Reporting hospital early alert	2.47 min/pt.

G	Conducting daily inpatient census	10.13 min
	Calculating inpatient indicator	60.21 min
	Visum	19.36 min/pt.
	Information on decision to carry out data	9.51 min/researcher
	Placing back medical record files to the filing section	0.51 min/mrd
	Putting back medical record files to filing shelf	1.21 min/mrd
	Preparing outpatient data	1.27 min/mrd
	Files distribution	4.11 min/mrd
	Providing post inpatient files	1.21 min/mrd

**Annotation :**

- A : Head of Medical Records Department
- B : Coordinator of Registration
- C : Registration of Outpatient Patients, Registration of Executive Patients and Online Finger Patients
- D : Registration of Emergency and Inpatient Patients
- E : Inpatient Assembling
- F : Outpatient Assembling and Inpatient-Outpatient Coding
- G : Filing

- (4) Calculating Standard Workload (SWL). Standard Work Load (SWL) is the volume/quantity of work for 1 year for each type of healthcare officer. The standard workload is obtained from the Available Working Time divided by the time norm. The SWL calculation results in this research are as follows.

Table 4 Standard Workload

Sub Unit	Workload Component	Time Norms	Time	WL	
A	(1)	(2)	(3)	(4)	(4)/(3)
	Composing unit guideline	180 min/doc	75000	416.67	
	Carrying out planned coordination between sub-unit and head of the unit	90 min/rprt	75000	833.33	
	Composing unit standard operating procedure	45 min/rprt	75000	1,666.67	
	Proposing the requirements for unit services	60 min/prpsl	75000	1,250	
	Preparing and managing shift service schedules according to applicable needs and regulations	90 min/sched	75000	833.33	
	Composing proposal for required routine logistics required by the relevant unit	20 min/prpsl	75000	3,750	
	Verifying the completeness of administration of permits, leave, and certificates	5 min/officer	75000	1,5000	
	Preparing data for head of the unit	45 min/data	75000	1,666.67	
	Creating unit quality indicator reports	45 min/rprt.	75000	1,666.67	
	Carrying out internal coordination of sub units	60 min/act	75000	1,250	
	Carrying out incidental coordination between sub-units and head of unit	30 min/review	75000	2,500	
	Carrying out coordination of external services	15 min/act	75000	5,000	
	Handling customer complaints	45 min/act	75000	1,666.67	
	Carrying out work results assessments for subordinates	5 min/officer	75000	1,5000	
	Composing an outbreak report to the District Health Office	30 min/rprt	75000	2,500	
	Assembling outpatient medical record documents	0.49 min/mrd	75000	227,272.73	
	Preparing weekly medical record reports	30 min/mo	75000	2,500	
	Designing a new medical record form	30 min/mrd	75000	2,500	
	Revising the design of the medical record form	15 min/mrd	75000	5,000	
	Preparing monthly medical record reports	60 min/rprt	75000	1,250	
	Conducting outpatient coding and indexing	1.16 min/mrd	75000	64,655.17	
	Conducting inpatient coding and indexing	5.05 min/mrd	75000	14,851.49	

	Providing medical record lending services	1.40 min/mrd	75000	53,571.43
	Processing SKM requests	10 min/mrd	75000	7,500
	Providing data requested for decision making process	9.51 min/researcher	75000	7,886.44
	Coordination with registration officers	10 mnt/day	75000	7,500
	Coordination between registration unit and other units	15 min/day	75000	5,000
	Logistics calculations	30 min/mo	75000	2,500
	Making schedule	120 min/mo	75000	625
B	Making reports	120 min/mo	75000	625
	Performance assessment	120 min/mo	75000	625
	Registering patients	2.29 min/pt.	75000	32,751.09
	Providing services of BPJS referral letter	1.52 min/pt.	75000	49,342.11
	Providing service for online patient reservation	2.20 min/pt.	75000	33,783.78
	Registering patients	2.29 min/pt.	75000	32,751.09
	Providing BPJS patient referral letter services	1.52 min/pt.	75000	49,342.11
C	Serving online patient reservations	2.22 min/pt.	75000	33,783.78
	Registering patients onsite	3.43 min/pt.	75000	21,865.89
	Following up on medical record files	5.28 min/mrd	75000	14,204.55
	Finger patients	0.47 min/pt.	75000	159,574.47
	Online Registration	2.19 min/pt.	75000	34,246.58
	Assembling and coding outpatients	0.33 min/mrd	75000	227,272.73
	Make special referrals for HD patients	2.17 min/pt.	75000	34,562.21
	Registration of long-term non-insurance outpatient patient in the ER	0.50 min/pt.	75000	150,000
	Registration of new non-insurance outpatient patient in the ER	1.25 min/pt.	75000	60,000
D	Registration of long-term outpatient patient with insurance in the ER	0.48 min/pt.	75000	156,250
	Registration of new outpatient patient with insurance in the ER	1.25 min/pt.	75000	60,000
	Registration of national health insurance (new born babies)	3.13 min/pt.	75000	23,961.66
	Following up on administrative completeness of ER/inpatient patients	3.06 min/pt.	75000	24,509.80
	Registration of non-insured inpatient patients	4.21 min/pt.	75000	17,814.73
	Registration of insured inpatient patients	4.46 min/pt.	75000	16,816.14
E	Assembling inpatient files	09.03 min/mrd	75000	8,305.65
	Completing inpatient documents	10.08 min/mrd	75000	7,440.48
	Outpatient Assembling	0.49 min/mrd	75000	153,061.22
	Outpatient Coding dan Indexing	1.16 min/mrd	75000	64,655.17
	Inpatient Coding dan Indexing	5.05 min/mrd	75000	14,851.49
	Lending medical record documents	1.40 min/mrd	75000	53,571.43
	Reporting Covid	55.57 min/pt.	75000	1,349.65
F	Reporting hospital early alert	2.47 min/pt.	75000	30,364.37
	Conducting daily inpatient census	10.13 min	75000	7,403.75
	Calculating inpatient indicator	60.21 min	75000	1,245.64
	Visum	19.36 min/pt.	75000	3,873.97
		9.51 min/researcher	75000	7,886.44
	Information on decision to carry out data	min/researcher		
	Placing back medical record files to the filing section	0.51 min/mrd	75000	147,058.82
	Putting back medical record files to filing shelf	1.21 min/mrd	75000	61,983.47
G	Preparing outpatient data	1.27 min/mrd	75000	59,055.12
	Files distribution	4.11 min/mrd	75000	18,248.18
	Providing post inpatient files	1.21 min/mrd	75000	61,983.47

**Annotation:**

- A : Head of Medical Records Department
- B : Coordinator of Registration
- C : Registration of Outpatient Patients, Registration of Executive Patients and Online Finger Patients
- D : Registration of Emergency and Inpatient Patients
- E : Inpatient Assembling

F : Outpatient Assembling and Inpatient-Outpatient Coding  
 G : Filing

(5) Calculating Supporting Tasks Standard and Supporting Tasks Factor. Supporting tasks are defined as tasks that are not directly related to the main tasks and functions carried out by all types of healthcare officers. Supporting Task Factor (STF) is the proportion of time used to complete each activity per unit of time (per day or per week or per month or per semester). Supporting Tasks Standard (STS) is the proportion of time used to complete each activity per unit of time (per day or per week or per month or per semester). The results of the STF and STS calculations in this research are as follows.

Table 5 STF and STS

Task	Average Time	Activity Time (min/yr)	Time	STF %
(1)	(2)	(3)	(4)	(3)/(4) x 100
Monthly meeting	2 hrs/mo	1,440	7,5000	1.92 %
			Supporting Task Factor (STF) in %	1.92%
			Supporting Task Standard (STS) = (1/(1-STF/100))	1.02

(6) Calculating Human Resources Requirement. In calculating healthcare human resources requirement, 1 year achievement is required. In this study, 1 year achievement was obtained from visit data from January to April and then predicted calculations were carried out. This 1 year achievement is then divided by SWL to obtain the following results.

a. Head of Medical Records Department

Table 6 Requirement of Head of Medical Records Department

Tasks	1 Year Achievement t	SWL	Requirement of HHR
(1)	(2)	(3)	(2)/(3)
Composing unit guideline	3	416.67	0.0072
Carrying out planned coordination between sub-unit and head of the unit	159	833.33	0.1908
Composing unit standard operating procedure	3	1,666.67	0.0018
Proposing the requirements for unit services	6	1,250	0.0048
Preparing and managing shift service schedules according to applicable needs and regulations	12	833.33	0.0144
Composing proposal for required routine logistics required by the relevant unit	33	3,750	0.0088
Verifying the completeness of administration of permits, leave, and certificates	15	1,5000	0.001
Preparing data for head of the unit	222	1,666.67	0.1332
Creating unit quality indicator reports	24	1,666.67	0.0144
Carrying out internal coordination of sub units	225	1,250	0.18
Carrying out incidental coordination between sub-units and head of unit	210	2,500	0.084
Carrying out coordination of external services	21	5,000	0.0042
Handling customer complaints	6	1,666.67	0.0036
Carrying out work results assessments for subordinates	36	1,5000	0.0024
Composing an outbreak report to the District Health Office	33	2,500	0.0132
Assembling outpatient medical record documents	6.210	153,061.22	0.0406
Preparing weekly medical record reports	51	2,500	0.0204
Designing a new medical record form	5.844	64,655.17	0.0903
Revising the design of the medical record form	228	14,851.49	0.0154
Preparng monthly medical record reports	12	2,500	0.0048

Tasks	1 Year Achievement t	SWL	Requirement of HHR
Conducting outpatient coding and indexing	18	5,000	0.0036
Conducting inpatient coding and indexing	147	1,250	0.1176
Providing medical record lending services	264	53,571.43	0.0049
Processing SKM requests	18	7,500	0.0024
Providing data requested for decision making process	54	7,886.44	0.0068
	Requirement for Main Tasks	0.9706	
	STS	1.02	
	Requirement for HHR (RMT × STS)	0.9900	
	Rounded	1	

**b. Coordinator of Registration**

Table 7 Requirement of Coordinator of Registration Officer

Tasks	1 Year Achievement t	SWL	Requirement of HHR
(1)	(2)	(3)	(2)/(3)
Coordination with registration officers	260	7,500	0.0347
Coordination between registration unit and other units	312	5,000	0.0624
Logistics calculations	12	2,500	0.0048
Making schedule	12	625	0.0192
Making reports	12	625	0.0192
Performance assessment	12	625	0.0192
Registering patients	10,749	32,751.09	0.3282
Providing services of BPJS referral letter	3,153	49,342.11	0.0639
Providing service for online patient reservation	2,508	34,090.91	0.0736
	Requirement for Main Tasks	0.6252	
	STS	1.02	
	Requirement for HHR (RMT × STS)	0.6378	
	Rounded	1	

**c. Outpatient Registration, Executive Patient and Online Finger Patient Registration**

Table 8 Requirement of Outpatient, Executive Patient and Online Finger Patient Registration Officer

Tasks	1 Year Achievement t	SWL	Requirement of HHR
(1)	(2)	(3)	(2)/(3)
<b>Morning Shift</b>			
Registering patients	118,532	32,751.09	3.62
Providing BPJS patient referral letter services	113,667	49,342.11	2.36
Serving online patient reservations	150,072	33,783.78	4.44
Registering patients onsite	457	21,865.89	0.02
Following up on medical record files	1,095	14,204.55	0.08
Finger patients	135,645	159,574.47	0.85
	Requirement for Main Tasks	11.37	
	STS	1.02	
	Requirement for HHR (RMT × STS)	11.60	
	Rounded	12	
<b>Afternoon Shift</b>			
Registering patients	6,238	32,751.09	0.1905
Providing service to issue referral letter for BPJS	5,982	49,342.11	0.1244
Handling online patient reservation	22,424	33,783.78	0.6638
Registering online patients	5	21,865.89	0.0002
Following up medical records document	51	14,204.55	0.0036

Requirement for Main Tasks	0.9825
STS	1.02
Requirement for HHR (RMT $\times$ STS)	1.0022
Rounded	1

d. Emergency Patient Registration Unit and Inpatient Patient Registration Unit

**Table 9 Requirement of Emergency and Inpatient Patient Registration Officer**

Tasks	1 Year Achievement	SWL	Requirement of HHR
		(2)	
<b>Morning Shift</b>			
Online Registration	1,245	34,246.58	0.0364
Assembling and coding outpatients	5,944	227,272.73	0.0262
Make special referrals for HD patients	4,209	34,562.21	0.1218
Registration of long-term non-insurance outpatient patient in the ER	1,105	150,000	0.007
Registration of new non-insurance outpatient patient in the ER	999	60,000	0.0167
Registration of long-term outpatient patient with insurance in the ER	2,439	156,250	0.0156
Registration of new outpatient patient with insurance in the ER	1,401	60,000	0.0233
Registration of national health insurance (new born babies)	182	23,961.66	0.0076
Following up on administrative completeness of ER/inpatient patients	5,629	24,509.80	0.2297
Registration of non-insured inpatient patients	246	17,814.73	0.0138
Registration of insured inpatient patients	5,383	16,816.14	0.3201
Requirement for Main Tasks		0.8182	
		STS	1.02
		Requirement for HHR (RMT $\times$ STS)	0.8347
			Rounded
			1
<b>Afternoon Shift</b>			
Online Registration	974	34,246.58	0.0284
Assembling and coding outpatients	5,545	227,272.73	0.0244
Registration of long-term non-insurance outpatient patient in the ER	697	150,000	0.0046
Registration of new non-insurance outpatient patient in the ER	999	60,000	0.0167
Registration of long-term outpatient patient with insurance in the ER	2,241	156,250	0.0143
Registration of new outpatient patient with insurance in the ER	1,608	60,000	0.0268
Registration of national health insurance (new born babies)	127	23,961.66	0.0053
Following up on administrative completeness of ER/inpatient patients	3,818	24,509.80	0.1558
Registration of non-insured inpatient patients	267	17,814.73	0.015
Registration of insured inpatient patients	3,551	16,816.14	0.2112
Requirement for Main Tasks		0.5025	
		STS	1.02
		Requirement for HHR (RMT $\times$ STS)	0.51255
			Rounded
			1
<b>Night Shift</b>			
Online Registration	3,194	34,246.58	0.0933
Assembling and coding outpatients	4,256	227,272.73	0.0187
Registration of long-term non-insurance outpatient patient in the ER	601	150,000	0.0040

Registration of new non-insurance outpatient patient in the ER	631	60,000	0.0105
Registration of long-term outpatient patient with insurance in the ER	1,911	156,250	0.0122
Registration of new outpatient patient with insurance in the ER	1,113	60,000	0.0186
Registration of national health insurance (new born babies)	87	23,961.66	0.0036
Following up on administrative completeness of ER/inpatient patients	2,709	24,509.80	0.1105
Registration of non-insured inpatient patients	189	17,814.73	0.0106
Registration of insured inpatient patients	2,520	16,816.14	0.1499
	Requirement for Main Tasks		0.4319
	STS		1.02
	Requirement for HHR (RMT × STS)		0.4405
	Rounded		1

Based on the calculations above, it can be seen that the need for officers in Emergency and Inpatient Registration Unit is 3 officers. Emergency patient registration unit is a special unit where the minimum service standard is to be open 24 hours. This is also supported by Minister of Manpower Decree No. KEP.233/MEN/2003 concerning the type and nature of work that is carried out continuously. At the UNS hospital itself, emergency patient registration unit and inpatient patient registration unit apply a MANH shift pattern (Morning, Afternoon, Night, Holiday) so that a minimum of 4 officers are needed to fulfill this shift pattern so that the total need for these two units is 4 officers.

#### e. Inpatient Assembling Unit

Table 10 Requirement of Inpatient Assembling Officer

Tasks	1 Year Achievemen t	SWL	Requirement of HHR
			(2)/(3)
Inpatient documents assembling	12,156	8,305.65	1.46
Completing inpatient documents	12,156	7,440.48	1.63
	Requirement for Main Tasks		3.09
	STS		1.02
	Requirement for HHR (RMT × STS)		3.15
	Rounded		3

#### f. Outpatient Assembling and Inpatient-Outpatient Coding Unit

Table 11 Requirement for Outpatient Assembling and Inpatient-Outpatient Coding Officers

Tasks	1 Year Achievemen t	SWL	Requirement of HHR
			(2)/(3)
<b>Morning Shift</b>			
Outpatient assembling	64,655	153,061.22	0.4224
Outpatient coding	64,838	64,655.17	1.0028
Inpatient coding	5,964	14,851.49	0.4016
Taking/returning research files	2,045	53,571.43	0.0382
Reporting Covid	75	1,349.65	0.0556

Continued Table 10 Requirement for Outpatient Assembling and Inpatient-Outpatient Coding Officers

Tasks	1 Year Achievemen t	SWL	Requirement of HHR
(1)	(2)	(3)	(2)/(3)
Reporting hospital early alert	153	30,364.37	0.005
Conducting daily inpatient census	156	7,403.75	0.0211
Calculating inpatient indicator	6	1,245.64	0.0048
Visum	5	3,873.97	0.0013
Information on decision to carry out data	6	7,886.44	0.0008
Placing back medical record files to the filing section	5.727	147,058.82	0.0389
Requirement for Main Tasks			1.9925
STS			1.02
Requirement for HHR (RMT $\times$ STS)			2.03
Rounded			2
<b>Afternoon Shift</b>			
Outpatient assembling	64,654	153,061.22	0.4224
Outpatient coding	64,838	64,655.17	1.0028
Inpatient coding	5,964	14,851.49	0.4016
Taking/returning research files	2,044	53,571.43	0.0382
Reporting Covid	75	1,349.65	0.0556
Reporting hospital early alert	153	30,364.37	0.005
Conducting daily inpatient census	156	7,403.75	0.0211
Calculating inpatient indicator	6	1,245.64	0.0048
Visum	5	3,873.97	0.0013
Information on decision to carry out data	6	7,886.44	0.0008
Placing back medical record files to the filing section	5,727	147,058.82	0.0389
Requirement for Main Tasks			1.9925
STS			1.02
Requirement for HHR (RMT $\times$ STS)			2.03
Rounded			2

g. Filing Unit

Table 12 Requirement for Filing Officers

Tasks	1 Year Achievemen t	SWL	Requirement of HHR
(1)	(2)	(3)	(2)/(3)
<b>Shift Pagi</b>			
Putting back medical record files to filing shelf	129,314	61,983.47	2.09
Preparing outpatient data	118,980	59,055.12	2.01
Files distribution	3,120	18,248.18	0.17
Providing post inpatient files	11,548	61,983.47	0.19
Requirement for Main Tasks			4.46
STS			1.02
Requirement for HHR (RMT $\times$ STS)			4.55
Rounded			5
Tasks	1 Year Achievemen t	SWL	Requirement of HHR
(1)	(2)	(3)	(2)/(3)
<b>Shift Siang</b>			
Putting back medical record files to filing shelf	23,810	61,983.47	0.38
Preparing outpatient data	6,243	59,055.12	0.11
Files distribution	1,560	18,248.18	0.09
Providing post inpatient files	608	61,983.47	0.01
Requirement for Main Tasks			0.59

STS	1.02
Requirement for HHR (RMT × STS)	0.60
Rounded	1

Based on the calculation above, recapitulation of the results is presented below.

Table 13 Recapitulation of Healthcare Human Resources Requirement

No	Unit	Number of Officer	Requirement	Discrepancy
1	Head of Medical Records Department	1	1	Equal
2	Coordinator of Registration	1	1	Equal
3	Registration of Outpatient Patients, Registration of Executive Patients and Online Finger Patients	8	13	Minus 5
4	Registration of Emergency and Inpatient Patients	8	4	Plus 4
5	Inpatient Assembling	2	3	Minus 1
6	Outpatient Assembling and Inpatient-Outpatient Coding	4	4	Equal
7	Filing	6	6	Equal
<b>Total</b>		<b>30</b>	<b>32</b>	<b>Minus 2</b>

Based on the recapitulation results above, it can be seen that the total number of medical records unit officers at the UNS Sukoharjo hospital is currently 30 officers. After calculating the workforce requirements, it can be seen that the medical records unit workforce requirements are 32 officers, so it can be concluded that there is a shortage of 2 officers. However, in the Emergency Patient Registration Unit and Inpatient Patients Registration Unit, there is an excess of 4 officers, it is best to reallocate this excess to units that require additional officers.

## CONCLUSION

Based on the research results, it can be concluded that UNS Sukoharjo Hospital has 30 medical records officers. After calculating the workforce requirements using the healthcare workload analysis method, it can be seen that the workforce requirement for the medical records unit at UNS Sukoharjo Hospital is 32 people, so it can be concluded that the current shortage of medical records unit officers is 2 officers.

## REFERENCES

- Anggraeni M., Saryono. 2013. *Metodologi Penelitian Kualitatif dan Kuantitatif dalam Bidang Kesehatan*. Yogyakarta : Nuha Medika
- Badan PPSDM Kemenkes RI. 2015. *Buku Manual 2 Perencanaan Kebutuhan SDM Kesehatan Berdasarkan Standar Ketenagaan Minimal*.
- Cahyaningrum, N. Utami, Y.T., Rahmawati, E.N., & Nugroho, B.S. 2021. Kebutuhan Tenaga Kerja Bagian Filing Berdasarkan Metode ABK Kes di RSUD dr. Moewardi. *Jurnal Ilmiah Rekam Medis dan Informatika Kesehatan*, 40-73.

- Chrismawanti, M. 2020. Tinjauan Kebutuhan Sumber Daya Manusia Di Rekam Medis Berdasarkan Metode Analisis Beban Kerja Kesehatan (Abk-Kes) Di Rumah Sakit Umum Darmayu Ponorogo. *Jurnal Delima Harapan*, 7(1), 48–57
- Dwiasih, T., Amalya, N., & Yunengsih, Y. 2021. Kebutuhan PMIK Berdasarkan Analisa Beban Kerja Pada Bagian *Assembling* Rawat Inap Rumah Sakit X Bandung. *Jurnal Ilmiah Indonesia*, 1435-1443.
- Furoida, Ana. 2020. Analisis Kebutuhan Tenaga Rekam Medis Dengan Metode Analisis Beban Kerja Di Bagian *Filing* Rawat Inap RSI Sultan Agung Semarang. Semarang, Poltekkes Semarang. Tugas Akhir
- Gemilang, G. (2015). Beban Kerja Tenaga Rekam Medis di Rumah Sakit. *MEDICORDHIF Jurnal Rekam Medis*, 2, 41.
- Notoatmodjo, S. 2018. *Metodologi Penelitian Kesehatan*. Jakarta: Rineka Cipta.
- Tim Pusrengun SDM Kesehatan Badan PPSDM Kesehatan RI. (2016). *Buku Manual 1 Perencanaan Kebutuhan SDM Kesehatan Berdasarkan Metode Analisis Beban Kerja Kesehatan (ABK Kes)*. Jakarta.
- Peraturan Menteri Kesehatan Republik Indonesia Tahun 2020 *Tentang Klasifikasi dan Perizinan Rumah Sakit*
- Peraturan Menteri Kesehatan Republik Indonesia Nomor 53 Tahun 2012 *Tentang Pedoman Pelaksanaan Analisis Beban Kerja di Lingkungan Kementerian Kesehatan*.
- Peraturan Menteri Kesehatan Nomor 24 Tahun 2022 *Tentang Rekam Medis*
- Peraturan Menteri Kesehatan Nomor 33 Tahun 2015 *Tentang Pedoman Penyusunan Perencanaan Kebutuhan Sumber Daya Manusia Kesehatan*
- Peraturan Menteri Pendayagunaan Aparatur Negara dan Reformasi Birokrasi Republik Indonesia /Nomor 1 Tahun 2020 *Tentang Pedoman Analisis Jabatan dan Analisis Beban Kerja*
- Rhomadhoni, Lailatul Fitri. 2021. Analisis Kebutuhan Tenaga Kerja Pada Unit Rekam Medis Menggunakan Metode ABK Kes Di Rumah Sakit Umum Anna Medika Madura. Madura, Stikes Ngudi Husada Madura. Karya Tulis Ilmiah.
- Simanjutak, Esraida. 2021. *Perencanaan Unit Kerja Rekam Medis*. Medan : UIM Press.
- Sudra, R. I. 2017. *Rekam Medis*. Yogyakarta: Universitas Terbuka
- Sugiyono. 2019. *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung : Alphabet.
- Undang-Undang Republik Indonesia Nomor 36 Tahun 2014 *Tentang Tenaga Kesehatan*.
- Wignjosoebroto, Sritomo. 2008. *Ergonomi, Studi Gerak dan Waktu*. Guna Widya. Jakarta.

Wirajaya, M. K., & Nuraini, N. (2019). Faktor Faktor yang Mempengaruhi Ketidaklengkapan Rekam Medis Pasien pada Rumah Sakit di Indonesia. *Jurnal Manajemen Informasi Kesehatan Indonesia (JMIKI)*, 7(2), 165.

Sudra, R. I. 2017. *Rekam Medis*. Yogyakarta: Universitas Terbuka.