International Conference on Social Science and Humanity
Homepage : https://proceeding.antispublisher.or.id/index.php/icossh
Email : admin@antispublisher.com

e-ISSN : 3063-9611
ICOSSH, Vol. 2, No. 1, 2025
Page 984-1005

Analysis of Workload and Labor Needs Using the Workload Indicator Staffing Need (WISN) Method to Increase Employee Performance Efficiency in Hospitals Aisyiyah Siti Fatimah Tulangan

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DOI : https://doi.org/10.61796/icossh.v2i1.391

Sections Info

Article history:
Submitted: January 31, 2025
Final Revised: February 28, 2025
Accepted: March 20, 2025
Published: March 31, 2025

Keywords:
Workload labor needs
Employee performance WISN
Hospital

ABSTRACT

Objective: *The aim of this research is to determine the description of labor requirements, workload in each hospital unit, and measure the appropriate workload balance to produce efficient performance based on the WISN (Workload Indicator Staffing Need) method at Aisyiyah Siti Fatimah Tulangan Hospital.* ***Method:*** *The research design uses quantitative descriptions with work sampling and observation techniques in data collection. The population in this study was all units working at the hospital, and the sample used a different calculation method of 15 units.* ***Results:*** *The research results show that the available working time is 270.1 hours per year or the equivalent of 113,460 minutes per year with a standard allowance of 0.1786, equivalent to 18%, which is in accordance with general workload standards. From the results of this research, there is a gap between the workload calculation methods for each unit. The Pharmacy Unit, Laboratory Unit, and Registration Administration Unit do not use the WISN method for workforce planning. So the calculation results show an excess workload which causes a lack of labor requirements.* ***Novelty:*** *It was concluded that Aisyiyah Siti Fatimah Tulangan Hospital requires alignment of workload calculations with the WISN method to plan workforce productivity efficiency with a focus on main tasks and functions.*

INTRODUCTION

Human resources (HR) is one of the important factors in a functional organization, playing an important role in achieving targets and goals. Human resources are the driving force of organizational management activities that must be maximized through synergy with the environment [1]. The success of a company is often determined by the contribution of its personnel [2]. Therefore, human resource management must be considered starting from the availability of adequate labor, appropriate job placement, and the assignment of appropriate main tasks. Therefore, organizations must think about how to improve the efficiency of workers in completing their work through proper human resource planning. HR planning is the process of forecasting an organization's workforce needs for the future.

Imposing a high workload on employees can increase stress levels. This condition will make the resulting performance not optimal. Therefore, companies must be able to manage and optimize their human resources. This optimization can be done by analyzing the workload on employees. Workload is the amount of work that is the employee's duties and responsibilities both physically and mentally [3]. Analyzing and measuring employee workload is essential to identify areas that need to improve efficiency and take action to improve performance productivity. There are three conditions of employee workload, namely normal (fit), overload, and too low (underload) [4]. Therefore, it is very

important for organizations to have a number of employees that are suitable for the given workload. This aims to ensure that manpower needs are met according to standards and appropriate calculation results.

The assignment of employee workloads that are too heavy or too light can cause work inefficiencies such as decreased productivity, increased operational costs, and decreased competitiveness. One way to restore the condition of performance efficiency is to use the work measurement method. The work measurement method is very necessary and applied by an organization to determine the standard time and percentage of delay time of the process of the main activities of the workers. This measurement also serves to determine how long it takes an employee to complete a specific job at a normal pace in a work environment.

Aisyiyah Siti Fatimah Tulangan Hospital is an Islamic hospital that has visitors in 2023 of approximately 38,211 patients a year. The hospital has a total of 22 units with 8 medical service units, 6 medical support units, 4 financial units, and 4 general & administrative units. With a total number of employees of 194 workers. Previously, Aisyiyah Siti Fatimah Tulangan Hospital had calculated the workload of each unit. However, the results obtained were less than optimal due to different working hours and inconsistencies in calculations that were in line with the agency's provisions. This provides a high benchmark value on the workload in several units such as Pharmacy, Laboratory, and Registration Administration.

Based on the gap above, there is a discrepancy between the workload calculation and the standard method set by the agency. Therefore, this study was conducted to analyze the workload and workforce needs using the Workload Indicator Staffing Need (WISN) method in improving the efficiency of employee performance at Aisyiyah Siti Fatimah Tulangan Hospital.

RESEARCH METHOD

From the results of observations and interviews with the head of the SDI / HRD RS. 'Aisyiyah Siti Fatimah Tulangan, there is a problem that the calculation of the workload in the hospital is currently not uniform using one method. Not only that, there are several units that use the Workload Indicator Staffing Need (WISN) method, but it is not in accordance with the existing Workload Indicator Staffing Need (WISN) format, so the accuracy of the calculation cannot be declared valid. In addition, the Head of the SDI / HRD Section stated that he did not have competence in calculating the workload with the Workload Indicator Staffing Need (WISN) method.

Table 1. List of Units and Workload Calculation Methods 'Aisyiayah Siti Fatimah Tulangan Hospital.

No	Unit Name	Field	Calculation Method	Compatibility with the WISN format
1	Emergency Room	Medical Services	BUSINESS	Appropriate

2	Registration / RM	Medical Support	BUSINESS	Not Suitable
3	Pharmacy	Medical Support	BUSINESS	Not Suitable
4	Radiologi	Medical Support	BUSINESS	Appropriate
5	Laboratory	Medical Support	BUSINESS	Not Suitable
6	Nutrient	Medical Support	BUSINESS	Appropriate
7	IPS	Medical Support	WISN	Appropriate
8	Outpatient Cashier	Finance	WISN	Appropriate
9	IT	Finance	WISN	Appropriate
10	Inpatient Cashier	Finance	WISN	Appropriate
11	KMKB	Finance	WISN	Appropriate
12	Security	Adm & General	WISN	Appropriate
13	Driver	Adm & General	WISN	Appropriate
14	Laundry	Adm & General	WISN	Appropriate
15	Binroh	Adm & General	WISN	Appropriate
16	Outpatient	Medical Services	Ministry of Health	-
17	IBS	Medical Services	Ministry of Health	-
18	IKB	Medical Services	Gillies	-
19	ICU	Medical Services	Gillies	-
20	Hospitalization 1	Medical Services	Gillies	-
21	Hospitalization 2	Medical Services	Gillies	-
22	Baby Room	Medical Services	Gillies	-

From the table above, we can see that there are 22 units at 'Aisyiyah Siti Fatimah Tulangan Hospital, of the 22 units there are 15 units that use workload calculation with the Workload Indicator Staffing Need (WISN) Method, 2 units use the Ministry of Health Method, 5 units use the Gillies Method. Of the 15 units that use the Workload Indicator Staffing Need (WISN) Method, there are 3 units that are not in accordance with the WISN

format which causes the calculation to experience misalignment, resulting in an impact on the workload gap in the unit. From the problems that occurred in the 3 units at 'Aisyiyah Siti Fatimah Tulangan Hospital, it is the background why further studies are needed related to the calculation of workload at the hospital.

Based on the results of observations in the Pharmacy Unit, Laboratory Unit and Registration Administration Unit with different main tasks. The following is a list of employees in the unit:

Table 2. List of Employees of the Pharmacy, Laboratory and Registration Administration Unit (RM) 'Aisyiayah Siti Fatimah Tulangan Hospital.

No	Unit Name	Number of Employees
1.	Pharmacy	14
2.	Laboratory	9
3.	Registration Administration (RM)	14

With the current number of 37 employees. With the workload every year recorded.

Table 3. List of Employees of the Pharmacy, Laboratory and Registration Administration Unit (RM) 'Aisyiayah Siti Fatimah Tulangan Hospital.

Year	Number of patients
2022	45,329 Patients
2023	38,211 Patients

The quantity of one year's main activities is compiled based on various data on service activities that have been assigned by the work unit of 'Aisyiyah Siti Fatimah Hospital within 1 year. From the patient data above, it shows a decrease in the number of patients by 7,118 from 2022 – 2023. The decrease resulted in a reduction in the workload of officers who created an excess of human resources at Aisyiyah Siti Fatimah Tulangan Hospital. In addition, from the results of work sampling, it was found that excessive delays in each main task made employee performance less efficient and improper calculations made the analysis results inappropriate.

RESULTS AND DISCUSSION

A. Workload Calculation Based on the WISN Method

Manpower needs planning is the process of identifying the number of employees needed by an organization in the future based on demand and supply. Planning for labor needs is needed to increase employee motivation and productivity, in addition to planning is carried out to overcome employee physical and mental fatigue, as well as estimate the number of labor needs in the future [2]. Workforce planning can be done by calculating the workforce based on the available workload. The determination of the number of workers consists of the volume of work that is targeted to be completed in a period of time, namely days, months, or years [15]. In the research [16] determine the

optimal number of workers based on the existing workload using the Workload Indicator Staffing Need (WISN). WISN is a calculation method that can be applied to calculate medical and non-medical workers. The WISN method is to be able to determine the number of labor needs in health services based on the workload owned by health workers. The steps to calculate labor needs use the formula Workload Indicator Staffing Need (WISN) namely: 1. Determining the Working Time, 2. Compiling and Calculating Load Standards, 3. Determining and Calculating Allowance Standards, 4. Calculating the Number of Labor Needs in Categories.

This research uses descriptions of data obtained from filling out questionnaires by respondents to provide an overview of their conditions and characteristics. The respondents involved in this research were all employees of the Sukorambi Jember Community Health Center. The data analyzed came from 32 questionnaires that were collected.

The award was obtained from effective work for a period of 1 year for each category of human resources in each unit. The data taken is as follows:

1. Set the available working hours.

Setting available working hours was obtained 270.1 days a year, 1,891 hours per year, 113,460 minutes per year. With the details of the calculation as in the table below:

Table 4. Available Working Time Calculation 'Aisyiayah Siti Fatimah Tulangan Hospital.

	Day	**Hours Per day**	**Hours per Week**	**Days per week**
Number of working days	6	7	42	6,00
Total			**42**	**6,0**

DOWNTIME		
Annual Leave	12	days per year
Public Holidays	25	days per year
Education and Training	2,86	days per year
Absenteeism	2	days per year
	41,86	**days per year**
	6,98	**weeks per year**
Number of Weeks	52	per year
EFFECTIVE UPTIME	45,02	weeks per year
	270,1	days per year
	1.891	**hours per year**
WKT=	**113.460**	**minutes per year**

The description of the calculation is as follows:

Available Working Time formula (WKT) = [A – (B + C + D + E)] X F

Education and training = 1-year training standard: hours per day

= 20 : 7 = 2.86 days per year

For weekdays available = [312 - (12 + 2.86 + 25 + 2)]
= [312 - 41.86]
= 270.1 days/year
= 270.1 x 7 days
= 1,891 hours/year
= 1,891 x 60 minutes
= 113,460 minutes/year

The results of the calculations obtained from the Pharmacy Unit, Laboratory Unit and Registration Administration Unit at 'Aisyiyah Siti Fatimah Hospital are the number of available working days is 270.1 days per year, 1,891 hours per year and 113,460 minutes per year. Based on the results of the available work assignments which aim to find out the working days of officers in the pharmacy unit, laboratory unit and registration administration unit at Aisyiyah Siti Fatimah Tulangan hospital, the effective working days in one week are 6 working days with 45.02 working days in a week per year, overall there are 270.1 days in one year. Based on Law No. 11 of 2020 concerning Job Creation, it states that 7 hours of work in a day or 40 hours a week which applies to 6 working days with a 1-day holiday rule. From these regulations, the working day is in accordance with the provisions that apply at Aisyiyah Siti Fatimah Tulangan Hospital.

Based on the calculation of annual leave and national holidays, it can be known that the number of annual leave for pharmacy unit officers, laboratory units and registration administration units is 12 days a year, 20 hours per year of education and training, 2 days of absence and 25 days of national holidays in 2023. From the results of the calculation above, it can be concluded that it affects the availability of working time and working days processed by the WISN method to get an effective amount of working time of 1,891 hours per year or 113,460 minutes per year.

2. Workload Standard Calculation

The preparation of workload standards is the quantity and number of workloads carried out within a period of one year in 2023 in each unit, in this calculation the researcher conducts work sampling to the pharmaceutical unit, laboratory unit, and registration administration unit. Based on these working hours, employees stated that the workload tasks that were suspended were very high due to the lack of available human resources with an increasing number of patient visits. The workload standard in the pharmacy unit consists of 15 main tasks that must be carried out, 57 main tasks of the laboratory unit and 26 main tasks in the registration administration unit. In this study, the standard workload of the main activities is known by looking at the quantity and time needed. The results of the standard calculation of the workload calculated using the WISN method on each unit, are as follows:

Table 5. Calculation of Workload Standards (SBK) 'Aisyiayah Siti Fatimah Tulangan Hospital.

a. Pharmacy Unit

No	Main Activities	Quantity	Time required (minutes)	SBK
		a	b	c=WKT/b
1	Receiving Prescriptions From Outpatients	30,256.0	0.5	226,920
2	Examining the Validity of Prescriptions	30,256.0	1	113,460
3	Calculating the Amount of Medication Required and Price	30,256.0	1	113,460
4	Entering Patient Data and Prescribed Medications into RSASF'sComputer Program	30,256.0	1	113,460
5	Printing Receipts	30,256.0	0.5	226,920
6	Check the availability of medications, if medications are not available, ask for doctor's approval for a replacement	270.1	5	22,692
7	Inform the price of drugs that must be paid	270.1	3	37,820
8	Preparing or Taking Medicines Until Handing Over Medicines to Patients According to [NonConcoction] Procedures	25,663.6	15	7,564
9	Preparing or Taking Medicines to Deliver Medicines to Patients According to the [Concocted] Procedure	25,663.6	30	3,782
10	Creating a Recipe Report	270.1	1	113,460
11	Checking Stock [Item]	27,014.3	0.5	226,920
12	Chronic Drug Input into Online Pharmacy	15,668.3	5	22,692
13	Conducting the Drug Return Process	4,052.1	10	11,346
14	Completing the BPJS Claim Requirements Document Requirements	15,668.3	7	16,209
15	Entering and Printing Documents for Claims	15,668.3	7	16,209

b. Laboratory Unit

No	Main Activities	Quantity	Time required (minutes)	SBK
		a	b	c=WKT/b
1	Sampling phlebotomy to px RI	5.402,9	5	22,692
2	Sampling to px RJ, general emergency room, special emergency room	6.753,6	5	22692.0
3	Doing outpatient Antigen swabs	4.052,1	0,5	226920.0
4	Doing Antigen swabs at the Emergency Room & VK	5.402,9	5	22692.0

5	Dividing samples into inspection fields	12.156,4	2	56730.0
6	Serum & Plasma Manufacturing	2.701,4	20	5673.0
7	Perform a hematological examination	12.156,4	5	22692.0
8	Perform a blood chemistry test	2.701,4	15	7564.0
9	Conducting a widal inspection	3.241,7	5	22692.0
10	Perform UL and Faeces inspections	1.350,7	10	11346.0
11	Prepare the Faal Hemostasis sample to be referred	270,1	5	22692.0
12	Conducting ICT/Serology checks	540,3	5	22692.0
13	Conducting BTA checks	810,4	30	3782.0
14	Perform Rapid Antigen tests	9.455,0	0,5	226920.0
15	Entering antigen patient data into allrecord	9.455,0	5	22692.0
16	Perform PCR Swab action	1.350,7	1	113460.0
17	Packing Swab specimens	1.350,7	1	113460.0
18	Create a Rapid test report	270,1	1	113460.0
19	Sending swab specimens to referral points	1.350,7	120	945.5
20	Recording in the Swab Expedition Book	1.350,7	1	113460.0
21	Entering patient data into allrecord, creating patient specimen data and emailing specimen data to the Health Office	540,3	5	22692.0
22	Coordinating swab services with Health Office officers, referral hospitals	540,3	15	7564.0
23	Printing PCR swab results in New All Record	540,3	1	113460.0
24	Recording on the Reference Lab expedition book	540,3	1	113460.0
25	Recording in the TCM expedition book	540,3	1	113460.0
26	Packing TCM of sputum specimens	810,4	5	22692.0
27	Input TCM patient data into the Citrus app	810,4	2	56730.0
28	Input BTA patient results into the SITB application	810,4	2	56730.0
29	Report to DSPK regarding the results of critical scores and results if in doubt	540,3	10	11346.0
30	Informing the RI room or emergency room of the results of the critical score	270,1	5	22692.0
31	Inform the RI room or emergency room The results of the cyto laboratory examination	270,1	5	22692.0
32	Create a Rapid test report	270,1	5	22692.0
33	Create a report on form TB 04	270,1	2	56730.0
34	Preparing the cross-test process to the hospital	270,1	60	1891.0
35	Conducting a crosscheck of the results of the examination	4.592,4	10	11346.0
36	Typing results	12.156,4	5	22692.0
37	Verify typing	12.156,4	2	56730.0
38	Typing Copy Results	12.156,4	1	113460.0
39	Providing information on laboratory services	1.350,7	5	22,692

40	Coordinating referral laboratory examinations	1.350,7	10	11,346
41	Perform Daily QC (DL and Clinical Chemistry)	540,3	60	1,891
42	Prepare tools and materials before performing swab actions	9.455,0	10	11,346
43	Prepare tools and materials before sampling	12.156,4	10	11,346
44	Conducting QC (PME) once every 1 year	270,1	120	946
45	Providing services for the purchase of blood products and looking for couriers to order blood to PMI	540,3	10	11,346
46	Checking the identity, blood count and exp date on the blood bag	540,3	5	22,692
47	Record the identity and amount of blood ordered in the blood order book	540,3	3	37,820
48	Inform the unit requesting the arrival of the purchase of blood products	540,3	5	22,692
49	Make a peripheral blood swab if you find abnormal results in a routine blood test	270,1	20	5,673
50	Input patient data into hematology tools	12.156,4	0,5	226,920
51	Input patient data into the hipro device	810,4	0,5	226,920
52	Input patient data into the Jokoh tool	810,4	0,5	226,920
53	Making Anfra to logistics	270,1	5	22,692
54	Planning the procurement of reagents and medical equipment	270,1	5	22,692
55	Checking the physical stock of reagents and medical devices that are about to run out	1.350,7	5	22,692
56	Washing the tube after the process is complete	270,1	10	11,346
57	Cleaning the area in the laboratory room before and after conducting the examination	270,1	10	11,346

c. Registration Administration Unit

No	Main Activities	Quantity	Time required (minutes)	SBK
		a	b	c=WKT/b
1	Accepting New Outpatients and Emergency Departments [Filing and Khanza]	6.753,6	6	18,910
2	Receiving Old Outpatients and Emergency Departments [filing and khanza]	32.417,1	4	28,365
3	Print Patient Cards for New Patients	6.753,6	3	37,820
4	Cetak Label Paisen	39.170,7	2	56,730
5	Receiving Calls	26.744,1	10	11,346
6	Printing Outpatient SEP	14.857,9	5	22,692
7	Printing Referral SEPs and Non-PRB SEPs	540,3	5	22,692

8	Printing SKRI	2.431,3	5	22,692
9	Providing Information Related to BPJS, JR Services, etc.	39.170,7	5	22,692
10	Register Inpatients in Khanza	2.431,3	2	56,730
11	Call to Book Inpatient Room	2.431,3	3	37,820
12	Inpatient Motivation	2.431,3	15	7,564
13	Removing and Replacing Doctor's Schedule Changes in Khanza	2.701,4	2	56,730
14	Educating Visitors Regarding Room Info	2.701,4	2	56,730
15	Order Outpatient, Emergency Room, and Inpatient Files	7.293,9	10	11,346
16	Contacting Patients If There Are Changes to the Doctor's Practice Schedule	2.701,4	15	7,564
17	Preparing JKN Outpatient File Equipment	14.857,9	3	37,820
18	Check BPJS / KTG Patient Activity	14.857,9	2	56,730
19	Typing a Statement Letter of Referral Between Hospitals	270,1	2	56,730
20	Print Specific Forms	2.431,3	2	56,730
21	Checking Room Availability [Vacant Room Update]	2.701,4	5	22,692
22	Fingerprint record for Poly Ophthalmology, Cardiology, Surgery, Orthopedics, Obgyn, Nerve	7.834,1	5	22,692
23	Mutating Files in Khanza	39.170,7	3	37,820
24	Lending and Repatriation Status Inputs in Khanza	1.350,7	1	113,460
25	Print RSK Online MRS Post Patient	1.891,0	5	22,692
26	Printing Hospitalization Sep	1.891,0	5	22,692

The results of the workload calculation using the WISN method are obtained by calculating the number of each main task carried out per day multiplied by the available work time in a year. The time needed is obtained from the average work time in a day. Furthermore, in the calculation of the Standard Workload (SBK) it is obtained from = Time minutes per year: time required (minutes) of the main task. From the results of the above data processing, such as the main activities of receiving prescriptions from patients and checking stocks [items] in the pharmaceutical unit have an average time of 0.5 minutes/day with a standard workload of 226,920 minutes/year, this number is the largest number.

In the activity of conducting QC (PME) once a year in the laboratory unit has a fairly large average time of 120 minutes/day but with a small workload standard of 946 minutes/year. Meanwhile, in the administrative unit, contacting patients if there is a change in the doctor's practice schedule requires an average of 15 minutes/day with a fairly small workload standard of 7,574 minutes/year and the highest workload standard of 113,460 minutes/year.

3. Calculation of Allowance Standards

The calculation of the relaxation standard is carried out with the aim of obtaining the relaxation factor that occurs at 'Aisyiyah Siti Fatimah Hospital in accordance with the

mandatory activities and relaxation standards that have been set. The maintenance factor is an activity that is not directly related to the main activity or the time used to carry out activities outside the main task. The existence of a relaxation standard is used to increase morale and carry out good communication between employees. The following is the calculation of the standard of relaxation at the hospital. Aisyiyah Siti Fatimah Tulangan using the WISN method.

Table 6. Calculation of Allowance Standards (SKL) 'Aisyiayah Siti Fatimah Tulangan Hospital.

No	Activities	Average Time	Unit	Time	Relaxation Factor	Relaxation Standards
1	Pengajian	60	minutes/week	44.69	2681.4	0.0236
2	Plenary Meetings / Units	120	minutes/month	12.00	1440	0.0127
3	Ishoma	60	minutes/day	268.1	16086	0.1418
4	Accreditation Meeting	60	minutes/month	1.00	60	0.0005
STANDARD OF ALLOWANCE (SKL)						0.1786

The Standard Allowance calculation is obtained from =

Relaxation Factor = Average relaxation time x unit of time
= *e.g. Recitation = 60 x 44.69 = 2681.4

Standard Allowance = Allowance factor: effective working minute time
= *e.g. Recitation = 2681.4 : 113.460 = 0.0236

As a result of the calculation of the relaxation standard in the hospital, there are 4 categories of activities, namely recitation every week with an average time of 60 minutes/week with a relaxation standard of 0.0236 minutes/year, plenary meetings per unit which are carried out once a month have an average time of 120 minutes with a relaxation standard of 0.0127 minutes/year. Meanwhile, the average time of ishoma is 60 minutes/day with a standard of relaxation of 0.1418, and the accreditation meeting requires an average time of 60 minutes/month with a standard of relaxation of 0.0005 minutes/year.

Based on the workload at Siti Aisyiyah Siti Fatimah Tulangan Hospital, it is stated that the standard of relaxation at the hospital is 0.1786 minutes/year. This number is said to be in accordance with the guidelines for the preparation of health human resource planning Number 81/MENKES/SK/I/2004 and the policy of Law article 77 paragraph 2 concerning employment and hospital policies.

4. Calculation of the Number of Unit Labor Needs

The calculation of the number of labor needs is calculated based on the results of the calculation of Available Working Time (WKT), Workload Standards, and Allowance Standards in each unit. This calculation will produce the number of human resource needs needed by the hospital in accordance with its workload, which can be seen as follows:

Table 7. Calculation of the Number of Labor Needs 'Aisyiayah Siti Fatimah Tulangan Hospital.

a. Pharmacy Unit

No	Main Activities	Quantity	Time required (minutes)	SBK	SKL	Power Requirements
		a	b	c=WKT/b		d=a/c
1	Receiving Prescriptions from Outpatients	30,256.0	0.5	226,920		0.13
2	Examining the Validity of Prescriptions	30,256.0	1	113,460		0.27
3	Calculating the Amount of Medication Required and Price	30,256.0	1	113,460		0.27
4	Entering Patient Data and Prescribed Medications into RSASF's Computer Program	30,256.0	1	113,460		0.27
5	Printing Receipts	30,256.0	0.5	226,920		0.13
6	Check the availability of medications, if medications are not available, ask for doctor's approval for a replacement	270.1	5	22,692	0.1786	0.01
7	Inform the price of drugs that must be paid	270.1	3	37,820		0.01
8	Preparing or Taking Medicines Until Handing Over Medicines to Patients According to [Non-Concoction] Procedures	25,663.6	15	7,564		3.39
9	Preparing or Taking Medicines to Deliver Medicines to Patients According to the [Concocted] Procedure	25,663.6	30	3,782		6.79
10	Creating a Recipe Report	270.1	1	113,460		0.00
11	Checking Stock [Item]	27,014.3	0.5	226,920		0.12

12	Chronic Drug Input into Online Pharmacy	15,668.3	5	22,692	0.69
13	Conducting the Drug Return Process	4,052.1	10	11,346	0.36
14	Completing the BPJS Claim Requirements Document Requirements	15,668.3	7	16,209	0.97
15	Entering and Printing Documents for Claims	15,668.3	7	16,209	0.97
	TOTAL SBK				14.37
	SBK + SKL				14.55
	MANPOWER REQUIREMENTS				15

Number of Employee Needs = Workload standard + slack standard sum
Number of pharmaceutical units needed = 14,37 + 0,1786
= 14,55

b. Laboratory Unit

No	Main Activities	Quantity A	Time required (minutes) b	SBK SKL c=WKT	Power Requirements /b	d=a/c
1	Sampling phlebotomy to px RI	5.402,9	5	22,692		0.24
2	Sampling to px RJ, general Emergency room, special emergency room	6.753,6	5	22692.0		0.30
3	Doing outpatient Antigen swabs	4.052,1	0,5	226920.0	0.1786	0.02
4	Doing Antigen swabs at the Emergency Room & VK	5.402,9	5	22692.0		0.24
5	Dividing samples into inspection fields	12.156,4	2	56730.0	0.21	
6	Serum & Plasma Manufacturing	2.701,4	20	5673.0	0.48	
7	Perform a hematological examination	12.156,4	5	22692.0	0.54	
8	Perform a blood chemistry test	2.701,4	15	7564.0	0.36	
9	Conducting a widal inspection	3.241,7	5	22692.0	0.14	
10	Perform UL and Faeces inspections	1.350,7	10	11346.0	0.12	
11	Prepare the Faal Hemostasis sample to be referred	270,1	5	22692.0	0.01	

12	Conducting ICT/Serology checks	540,3	5	22692.0	0.02
13	Conducting BTA checks	810,4	30	3782.0	0.21
14	Perform Rapid Antigen tests	9.455,0	0,5	226920.0	0.04
15	Entering antigen patient data into allrecord	9.455,0	5	22692.0	0.42
16	Perform PCR Swab action	1.350,7	1	113460.0	0.01
17	Packing Swab specimens	1.350,7	1	113460.0	0.01
18	Create a Rapid test report	270,1	1	113460.0	0.00
19	Sending swab specimens to referral points	1.350,7	120	945.5	1.43
20	Recording in the Swab Expedition Book	1.350,7	1	113460.0	0.01
21	Entering patient data into allrecord, creating patient specimen data and emailing specimen data to the Health Office	540,3	5	22692.0	0.02
22	Coordinating swab services with Health Office officers, referral hospitals	540,3	15	7564.0	0.07
23	Printing PCR swab results in New All Record	540,3	1	113460.0	0.00
24	Recording on the Reference Lab expedition book	540,3	1	113460.0	0.00
25	Recording in the TCM expedition book	540,3	1	113460.0	0.00
26	Packing TCM of sputum specimens	810,4	5	22692.0	0.04
27	Input TCM patient data into the Citrus app	810,4	2	56730.0	0.01
28	Input BTA patient results into the SITB application	810,4	2	56730.0	0.01
29	Report to DSPK regarding the results of critical scores and results if in doubt	540,3	10	11346.0	0.05
30	Informing the RI room or emergency room of the results of the critical score	270,1	5	22692.0	0.01
31	Inform the RI room or emergency room the results of the cyto laboratory examination	270,1	5	22692.0	0.01
32	Create a Rapid test report	270,1	5	22692.0	0.01

33	Create a report on form TB 04	270,1	2	56730.0	0.00
34	Preparing the cross-test process to the hospital	270,1	60	1891.0	0.14
35	Conducting a crosscheck of the results of the examination	4.592,4	10	11346.0	0.40
36	Typing results	12.156,4	5	22692.0	0.54
37	Verify typing	12.156,4	2	56730.0	0.21
38	Typing Copy Results	12.156,4	1	113460.0	0.11
39	Providing information on laboratory services	1.350,7	5	22,692	0.06
40	Coordinating referral laboratory examinations	1.350,7	10	11,346	0.12
41	Perform Daily QC (DL and Clinical Chemistry)	540,3	60	1,891	0.29
42	Prepare tools and materials before performing swab actions	9.455,0	10	11,346	0.83
43	Prepare tools and materials before sampling	12.156,4	10	11,346	1.07
44	Conducting QC (PME) once every 1 year	270,1	120	946	0.29
45	Providing services for the purchase of blood products and looking for couriers to order blood to PMI	540,3	10	11,346	0.05
46	Checking the identity, blood count and exp date on the blood bag	540,3	5	22,692	0.02
47	Record the identity and amount of blood ordered in the blood order book	540,3	3	37,820	0.01
48	Inform the unit requesting the arrival of the purchase of blood products	540,3	5	22,692	0.02
49	Make a peripheral blood swab if you find abnormal results in a routine blood test	270,1	20	5,673	0.05
50	Input patient data into hematology tools	12.156,4	0,5	226,920	0.05
51	Input patient data into the hipro device	810,4	0,5	226,920	0.00
52	Input patient data into the Jokoh tool	810,4	0,5	226,920	0.00

53	Making Anfra to logistics	270,1	5	22,692	0.01
54	Planning the procurement of reagents and medical equipment	270,1	5	22,692	0.01
55	Checking the physical stock of reagents and medical devices that are about to run out	1.350,7	5	22,692	0.06
56	Washing the tube after the process is complete	270,1	10	11,346	0.02
57	Cleaning the area in the laboratory room before and after conducting the examination	270,1	10	11,346	0.02
	TOTAL SBK				**9.48**
	SBK + SKL				**9.66**
	MANPOWER REQUIREMENTS				**10**

Number of Employee Needs = Workload standard + slack standard sum
Number of Laboratory units needed = 9,48 + 0,1786
= 9,66

c. Registration Administration Unit

No	Main Activities	Quantity	Time required (minutes)	SBK	SKL	Power Requirements
		A	b	c=WKT/b		d=a/c
1	Accepting New Outpatients and Emergency Departments [Filing and Khanza]	6.753,6	6	18,910	0.1786	0.36
2	Receiving Old Outpatients and Emergency Departments [filing and khanza]	32.417,1	4	28,365		1.14
3	Print Patient Cards For New Patients	6.753,6	3	37,820		0.18
4	Cetak Label Paisen	39.170,7	2	56,730		0.69
5	Receiving Calls	26.744,1	10	11,346		2.36
6	Printing Outpatient SEP	14.857,9	5	22,692		0.65
7	Printing Referral SEPs and Non-PRB SEPs	540,3	5	22,692		0.02
8	Printing SKRI	2.431,3	5	22,692		0.11
9	Providing Information Related to BPJS, JR Services, etc.	39.170,7	5	22,692		1.73
10	Register Inpatients in Khanza	2.431,3	2	56,730		0.04

11	Call to Book Inpatient Room	2.431,3	3	37,820	0.06
12	Inpatient Motivation	2.431,3	15	7,564	0.32
13	Removing and Replacing Doctor's Schedule Changes in Khanza	2.701,4	2	56,730	0.05
14	Educating Visitors Regarding Room Info	2.701,4	2	56,730	0.05
15	Order Outpatient, Emergency Room, and Inpatient Files	7.293,9	10	11,346	0.64
16	Contacting Patients If There Are Changes to the Doctor's Practice Schedule	2.701,4	15	7,564	0.36
17	Preparing JKN Outpatient File Equipment	14.857,9	3	37,820	0.39
18	Check BPJS / KTG Patient Activity	14.857,9	2	56,730	0.26
19	Typing a Statement Letter of Referral Between Hospitals	270,1	2	56,730	0.00
20	Print Specific Forms	2.431,3	2	56,730	0.04
21	Checking Room Availability [Vacant Room Update]	2.701,4	5	22,692	0.12
22	Fingerprint Record for Poly Ophthalmology, Cardiology, Surgery, Orthopedics, Obgyn, Nerve	7.834,1	5	22,692	0.35
23	Mutating Files in Khanza	39.170,7	3	37,820	1.04
24	Lending and Repatriation Status Inputs in Khanza	1.350,7	1	113,460	0.01
25	Print RSK Online MRS Post Patient	1.891,0	5	22,692	0.08
26	Printing Hospitalization Sep	1.891,0	5	22,692	0.08
	TOTAL SBK				**11.14**
	SBK + SKL				**11.32**
	MANPOWER REQUIREMENTS				**11**

Number of Employee Needs = Workload standard + slack standard sum Number of Registration Administration (RM) units needed= 11,14 + 0,1786

= 11,32

Employee needs analysis is a strategy in forecasting the number of employees in each unit in achieving efficiency in order to compare employee needs with the number of employees in the unit [17]. The results of the calculation of labor needs based on the WISN method were obtained in the pharmaceutical unit of 14.55 workers, in the laboratory unit of 9.66 workers, and in the pharmaceutical administration unit of 11.32 workers. The results can be analyzed for rounding which concludes the number of workers needed with the ratio of [18], as follows:

1.0 – 1.1 rounded down to 1
>1.1 – 1.9 rounded up to 2
< 2.2 rounded down to 2
> 2.2 – 2.9 rounded up to 3
< 3.3 rounded down to 3

From the ratio above, the pharmaceutical unit is rounded up to 15 workers, the laboratory unit is rounded to 10 workers and the registration administration unit is rounded to 11 workers.

B. Calculation of the Number of Power in the Unit

Based on the results of the calculation above, using the format and method of Workload Indicator of Staffing Need (WISN) and the results of observations in these units, the following employee needs planning data is obtained:

Table 8. Results of Calculation of the Number of Labor Needs 'Aisyiayah Siti Fatimah Tulangan Hospital.

No	Unit Name	Number of Employees (Real)	WISN Calculation Results	Information
1.	Pharmacy	14	15	-1
2.	Laboratory	9	10	-1
3.	Registration Administration (RM)	14	11	+3

Based on the results of the table above, it shows that the number of available human resources in the pharmaceutical unit is 14 people with the calculation of the results of WISN shows that there is a shortage of labor in the pharmaceutical unit. The laboratory unit also showed the same results as the pharmaceutical unit in the overload of work given which resulted in the lack of one real workforce in the laboratory unit. Meanwhile, in the registration initiation unit, there is an overload of employees, namely an excess workforce of 3 people, this is due to the large number of employee burdens reduced due to the excess capacity of the existing workforce so that it is necessary to distribute the workforce for workload efficiency [18].

According to the observation results, good human resource planning (HR) in each unit can affect service performance. Therefore, human resource planning is expected to consider the skills or background of the abilities possessed to be able to achieve efficiency in each unit. It is also through the analysis of the position that has been determined by the 'Aisyiyah Siti Fatimah Tulangan Hospital [19].

C. Creating Uniformity of Format According to WISN Method Standards in All Units

From observation with the work sampling method, the amount of time in each activity pattern was obtained. Where in the amount of time the activity is changed in the form of minutes. The data is then used to calculate the average completion time of each unit of basic activities, workload standards and relaxation standards. The calculation of the number of manpower needs is carried out by entering primary data in the form of the amount of time for each activity pattern and secondary data into the Workload Indicator of Staffing Need (WISN) formula.

Table 9. List of Units and Conformity of Workload Calculation with the WISN Method 'Aisyiayah Siti Fatimah Tulangan Hospital

No	Unit Name	Field	Calculation Method	Compatibility of the WISN Format before Uniformity	Suitability of WISN Format After Uniformity
1	Emergency Room	Medical Services	BUSINESS	Appropriate	Appropriate
2	Registration / RM	Medical Support	BUSINESS	Not Suitable	Appropriate
3	Pharmacy	Medical Support	BUSINESS	Not Suitable	Appropriate
4	Radiologi	Medical Support	BUSINESS	Appropriate	Appropriate
5	Laboratory	Medical Support	BUSINESS	Not Suitable	Appropriate
6	Nutrient	Medical Support	BUSINESS	Appropriate	Appropriate
7	IPS	Medical Support	BUSINESS	Appropriate	Appropriate
8	Outpatient Cashier	Finance	BUSINESS	Appropriate	Appropriate
9	IT	Finance	BUSINESS	Appropriate	Appropriate
10	Inpatient Cashier	Finance	BUSINESS	Appropriate	Appropriate
11	KMKB	Finance	BUSINESS	Appropriate	Appropriate
12	Security	Adm & General	BUSINESS	Appropriate	Appropriate
13	Driver	Adm & General	BUSINESS	Appropriate	Appropriate
14	Laundry	Adm & General	WISN	Appropriate	Appropriate
15	Binroh	Adm & General	WISN	Appropriate	Appropriate
16	Outpatient	Medical Services	Ministry of Health	-	-

17	IBS	Medical Services	Ministry of Health	-	-
18	IKB	Medical Services	Gillies	-	-
19	ICU	Medical Services	Gillies	-	-
20	Hospitalization 1	Medical Services	Gillies	-	-
21	Hospitalization 2	Medical Services	Gillies	-	-
22	Baby Room	Medical Services	Gillies	-	-

From the table above, it is an alternative to overcome the problem of excess human resources in hospitals. Aisyiyah Siti Fatimah Tulangan. Uniformity of workload analysis formats and workforce needs in agencies is indispensable to create quality employee performance. With the application of the WISN method in hospitals. Aisyiyah Siti Fatimah Tulangan will help Human Resource Departement (HRD) in managing human resources in accordance with the needs of the hospital. In the table above, it is explained that after the WISN analysis is carried out, the results of the calculation of all RS units. Aisyiyah Siti Fatimah Tulangan is in line with the policies that have been set by the agency.

CONCLUSION

Fundamental Finding : After an analysis of the workload and labor needs using the WISN method in the pharmacy unit, laboratory, and registration administration at 'Aisyiyah Siti Fatimah Tulangan Hospital, it was found that the total needs of employees were 15 officers in the pharmacy unit, 10 in the laboratory unit, and 11 in the registration administration unit, with shortcomings of 1 officer in the pharmacy and laboratory units, and an excess of 3 officers in the registration administration unit. **Implication :** These findings suggest that workload assessments using the WISN method can identify staffing imbalances and inform efficient human resource management. **Limitation :** However, this study only covers three specific units, so broader organizational needs might not be fully captured. **Future Research :** Aisyiyah Siti Fatimah Tulangan Hospital needs to conduct a workload analysis with the WISN method on all other units, recruit additional officers for pharmacy and laboratory units, implement staff rotation in registration administration, and improve education and training for all employees to enhance quality performance efficiency.

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