



Human Resources Planning Basic Specialist Doctor at AMC Muhammadiyah General Hospital to Hospital Type C

Syahrizal Ardhiyand Hidayat^{1*}; Nur Hidayah¹

¹ Magister Administrasi Rumah Sakit, Universitas Muhammadiyah Yogyakarta

ARTICLE INFO

Article history:

Received 2 August 2021
Accepted 2 September 2021
Published 5 September 2021

Keyword:

Human resource planning
Workload
Analysis

ABSTRACT

Hospital human resources are currently expected to grow and develop in accordance with the needs of modern hospital management. Company management needs to conduct job analysis along with human resource planning. Workload analysis and HR planning provide direction for management to determine the right method in the recruitment process. This type of research is a type of qualitative research. The subjects of this study were the Yogyakarta City Health Office, specialist doctors, head of personnel, administration, and personnel (HRD) at AMC Yogyakarta Hospital. This research instrument is qualitative using in-depth interview guidelines. Analysis of the data that has been obtained by calculating the number of labor requirements using the WISN method. Analysis of qualitative analysis of the results of the interview by doing data reduction, data presentation, data analysis and drawing conclusions. The results of the analysis of HR needs using WISN analysis show that the available working time for basic specialists is 32,592 minutes/year, with the highest standard of work in internal medicine, surgery and obstetrics care units of 2,328 minutes/year. The allowance factor for basic specialist doctors is 9,360 minutes/year with a standard allowance of 0.287. The need for human resources based on the WISN method can be used in all work units, the calculation is more real in the analysis of the workload, the results show that the need for additional human resources in the obstetrics polyclinic is 8 doctors, internal medicine specialist poly and 1 doctor each child. The calculation of HR needs at AMC RSU has been carried out but is not optimal, based on the real workload, HR planning at AMC RSU Yogyakarta is still lacking in human resources.



This open access article is under the CC-BY-SA license.

Kata kunci:

Perencanaan sumber daya manusia
Analisis
Beban kerja

*) corresponding author

dr. Syahrizal Ardhiyand Hidayat
Magister Administrasi Rumah Sakit,
Universitas Muhammadiyah Yogyakarta
Jl. Brawijaya, Geblagan, Tamantirto, Kec.
Kasih, Bantul, Daerah Istimewa
Yogyakarta

Email: rizal4490@gmail.com

DOI: 10.30604/jika.v6iS1.1045

ABSTRAK

Sumber daya manusia rumah sakit saat ini diharapkan dapat tumbuh dan berkembang sesuai dengan kebutuhan manajemen rumah sakit modern. Manajemen perusahaan perlu melakukan analisis pekerjaan beserta perencanaan sumber daya manusia. Analisis beban kerja dan perencanaan SDM memberikan arahan bagi manajemen untuk menentukan metode yang tepat dalam proses rekrutmen. Jenis penelitian ini merupakan jenis penelitian kualitatif. Subjek penelitian ini adalah Dinas Kesehatan Kota Yogyakarta, dokter spesialis, kepala personalia, bagian administrasi, dan bagian kepegawaian (HRD) rumah sakit AMC Yogyakarta. Instrumen penelitian ini kualitatif menggunakan pedoman in-depth interview. Analisis data yang telah diperoleh dengan melakukan perhitungan jumlah kebutuhan tenaga kerja dengan metode WISN. Analisis analisis kualitatif hasil wawancara dengan melakukan reduksi data, penyajian data, analisa data dan penarikan kesimpulan. Hasil analisis kebutuhan SDM menggunakan analisis WISN menunjukkan waktu kerja tersedia dokter spesialis dasar adalah 32.592 menit/tahun, dengan standar kerja tertinggi pada unit pelayanan

penyakit dalam, bedah dan obsgyn sebesar 2.328 menit/tahun. Factor kelonggaran dokter spesialis dasar adalah 9.360 menit/tahun dengan standar kelonggaran sebesar 0,287. Kebutuhan SDM berdasarkan Metode WISN ini dapat digunakan di semua unit kerja, perhitungannya lebih riil analisis beban kerja hasil bahwa kebutuhan tambahan SDM pada poli kandungan sebanyak 8 dokter, poli spesialis penyakit dalam dan anak masing-masing 1 dokter. Perhitungan kebutuhan SDM di RSUD AMC sudah dilakukan namun belum optimal, berdasarkan beban pekerjaan yang nyata perencanaan SDM di RSUD AMC Yogyakarta masih kekurangan SDM.

This open access article is under the CC-BY-SA license.



INTRODUCTION

Increase total service health cause competition business House sick the tighter. Hospital should develop relevant and appropriate business strategies for outperform competitors. Society needs House sick for give service quality high. Hospital should fulfil all need service medical and related services with need patient. The question is is source power man House sick moment this could grow and develop in accordance with need management House modern sick?

Source power man is one unity that does not could separated from job. Both of them walk together and have high dependency. Management company need to do analysis profession along with planning source power human who will fill in formation or work profession that. Because of that, analysis HR work and planning provides instruction for management for determine the right method in the recruitment process. With Likewise, they can too get the right human resources for availability right position (Marhaeni, 2019).

Asri Medical Center (for next called AMC) in Yogyakarta provides service health for fulfil need public will various service medical quality high. AMC is a business entity service health group non-profit or organization service social community (PSM). AMC delivers service health to all sector public through service treatment, prevention disease, healing and recovery health (rehabilitation). Service this developed fully in accordance with condition regulation laws and teachings of Islam, without regardless of religion, class and status. For Upgrade quality service House sick, AMC needs *basic expert plan* for modernize House sick in accordance availability power expert specialist moment this as well as type and level customized service with regulation, ratio the place sleep and resources power man based on type service.

Source power man is part crucial from operation a organization. So that service health could work with well, needed source power adequate human. Because of service good health no miss from good management (Suryanto, 2020). Planning source power effective human as effort for Upgrade performance employee it turns out not always fulfil hope. Lack of service in the work area caused by the amount limited employees. In addition, the location work employees who don't is at in environment same work could result in lack of coordination good especially in service administration. Even though so, employee will permanent operate assigned duties and functions in applicable regulations (Fauziah et al. 2018).

so as not to happening gap and for Upgrade quality service going to House sick type C of lack Human Resources need planning power specialist base for going to to House sick type C suitable availability power specialist existing basis moment this and need will come customized with type and level

service based on provision for classification House sick and based Ratio the place sleep and Human Resources. All type service should there is for going to to House sick type C and Human Resources fulfil in accordance with standardization for above service should available all in their respective sections.

A number of study disclose that variable placement work source power man influential by positive and significant to performance employee (Sjafitri & Juniarti, nd). Need power health each unit/committee House Pidie Jaya Regional General Hospital yet fulfilled, fine that type nor quantity (Fauzi et al., 2020). Research also shows that the average time Responding to the Emergency Room at the HKBP Balige Hospital could lowered from 8.61 minutes be 4.14 minutes, and time responsive maximum could lowered from 26.30 minutes to 14.09 minutes, requires 3 doctors and resources power human 6 nurses per shift (Manik & Simorangkir, 2020). Other research shows results HR calculation with Method of ABK Cases at the Hospital "Darmayu" Ponorogo need add officer at the registration become 1 officer, assemble 2 officers and code 2 officers (Chrismawanti, 2020).

METHOD

Research Type

This type of research is a type of qualitative research by method Interview deep.

Subject and Object

The subjects of this study were the Yogyakarta City Health Office, specialist doctors, head of personnel, department of administration, and division home staffing (HRD) AMC Yogyakarta Hospital. The object of this research is planning Human Resources doctor s specialist base.

Instrument

Research Instruments this qualitative using guidelines *in-depth interviews*.

Data Collection Techniques

Primary data collected from subject study with use *in-depth interviews*. Secondary data about number and type and competence from power medical specialist base and data from record medical staff at AMC Yogyakarta Hospital and the Health Service Yogyakarta city.

Data Analysis

Data analysis who have obtained with To do calculation total need power work with WISN method. Data analysis was also carried out with To do analysis qualitative includes data reduction , data presentation , data analysis and withdrawal conclusion .

number of human resources so far by looking at the increase in the number of patient visits, and service actions that have also increased so that it affects the burden of basic specialist doctors. Furthermore, the informant also said that every year HR planning is carried out with the flow of proposals from the service unit, then to the HR department and a meeting of the directors and PT. however, for specialist doctors there is no HR planning.

RESULTS AND DISCUSSIONS

Based on the results of the interview, it is known that RSU AMC Yogyakarta is related to HR planning, that has never done a workload analysis in determining hospital HR needs. The basic guidelines used in determining the number of HR are the existence of service development, demand for needs that are presented from services to HR. Determination of the

Planning with set time work available doctor specialist basic at RSU AMC Yogyakarta.

The first step in analyzing human resource needs is to determine the available working hours for basic specialists. Available working time is carried out with the aim of determining effective working time within one year. The formula used is:

$$\text{Available Working Time} = (A + (B + C + D + E) \times F)$$

Table 1.
Calculation of Working Time Basic Specialist Doctors Available

| Code | Factor | Amount | Information |
|------|---|--------|----------------|
| A | weekdays | 240 | Day/ year |
| B | Annual leave | 12 | Day/ year |
| C | Education and training | 0 | Day/ year |
| D | holidays national | 15 | Day/ year |
| E | Average absenteeism work | 5 | Day/ year |
| F | Working time | 4 | Hours/ day |
| | Total days work ((A-(B+C+D+E)) | 272 | Day/ year |
| | Working time available ((A-(B+C+D+E)) x F | 543 | Hours/ year |
| | Total time work available | 32,592 | Minutes / year |

Based on the calculations, it is known that the total available working time is 32,592 minutes/year. Details of the factors that workdays are 240 days per year with 2 hours of

work per day, the number of national holidays is 15 days per year and annual leave is 12 days per year. The average number of absenteeism from work is 5 days per year.

Table 2.
Planning By Setting Available Working Time

| Axial coding | Sub- theme | Theme |
|---|---|--|
| 6 days work in a week | Amount day work standard 6 days, with there are work shifts | Working time available that is 6 days work with holiday |
| 3 days in a week | | |
| No determination from House sick | holidays House sick | work covers date red and leave yearly. Specialist given tolerance absence work with delegate profession to friend colleague. |
| Take turns practice in a week | | |
| Date red | Holiday in accordance agreement work | work covers date red and leave yearly. Specialist given tolerance absence work with delegate profession to friend colleague. |
| Annual leave | | |
| Holiday when no practice | Shift timetable practice | work covers date red and leave yearly. Specialist given tolerance absence work with delegate profession to friend colleague. |
| weekdays in accordance readiness doctor in fill in agreement practice | | |
| when there is necessity could shift timetable practice | There is tolerance absence work | work covers date red and leave yearly. Specialist given tolerance absence work with delegate profession to friend colleague. |
| Not present give news to FO | | |
| Doctor as UMY lecturers don't restricted | Communication Duty done when other doctors follow training | work covers date red and leave yearly. Specialist given tolerance absence work with delegate profession to friend colleague. |
| Non- lecturer doctor a maximum of 25% of the total schedule practice | | |
| Delegate to another colleague when follow training | Closed poly if no there is doctor replacement | work covers date red and leave yearly. Specialist given tolerance absence work with delegate profession to friend colleague. |
| Contact FO officer | | |
| if doctor replacement no can, service take care Street will closed | Closed poly if no there is doctor replacement | work covers date red and leave yearly. Specialist given tolerance absence work with delegate profession to friend colleague. |
| Done reschedul patient | | |

The results of the study can be concluded that the available working time is 6 working days with work holidays including red dates and annual leave. There are specialist doctors' working days which are divided into 2 shifts a week, 3 days each. Specialists are given tolerance for absence from

work when there is a need or are attending training outside the hospital on condition that they have notified the FO or delegated work directly to colleagues.

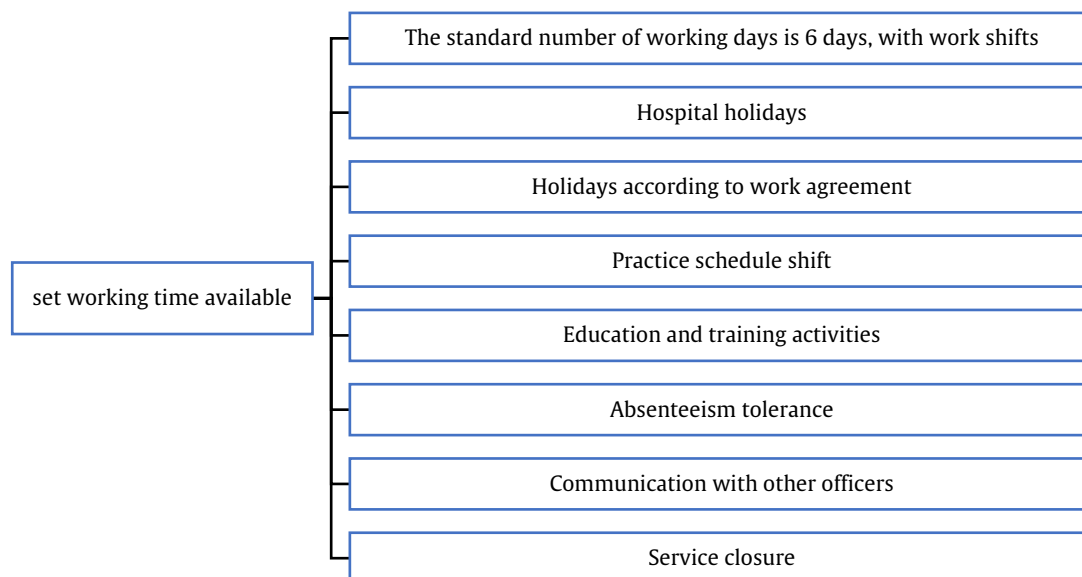


Figure 1. Theme 1 Working Time Available

Table 3.
Determination of Work Units and Calculated HR Categories

| No | Specialist Type | Amount | Gender | Education | Working Time |
|----|-------------------|--------|--------|---------------|--------------|
| 1 | Internal Medicine | 3 | L1 P2 | S2 Specialist | 1 year |
| 2 | Sp. Child | 2 | L1 P1 | S2 Specialist | 1 year |
| 3 | Sp. Obsgyn | 3 | P3 | S2 Specialist | 1 year |
| 4 | Sp. Surgery | 2 | L2 | S2 Specialist | 1 year |

Explore planning in determination of work units and categories of HR calculated at RSU AMC Yogyakarta.

The number of work units at RSU AMC Yogyakarta is related with HR doctor's specialist base that is as much 4 units work. work unit consist from specialist obstetrics, surgery, disease inside and child. Each work unit consist of one or more power source power human. Number of HR

doctors specialist in study this as many as 10 people. Specialist doctor and dan specialist obsgyn as many as 3 people each while doctor child and doctor surgery as many as 2 people each. HR category by type sex show type sex woman as many as 6 people and types sex man as many as 4 people. Doctor education specialist everything is specialist master 's degree.

Table 4.
Human Resources Performance

| Axial coding | Sub- theme | Theme |
|--|---|--|
| Profession could solved with good | Doctor can complete profession in accordance procedure set time | Activity profession done in accordance standard profession standard service and standard operating procedures House sick |
| Time required enough, even sometimes there is remainder time | | |
| Allocation time in accordance set standard | | |
| To do activity in accordance tupoksi | Profession done in accordance duties and authorities clinical | |
| Activity in accordance authority clinical | | |
| In accordance standard practice medical | | |
| To do non- service activities | | |

Conclusion from results study that is that activity profession done by doctor specialist base in accordance standard profession, standard service and standard operating

procedures House sick. This thing possible because level education informants who have in accordance with HR standards in the specialist.

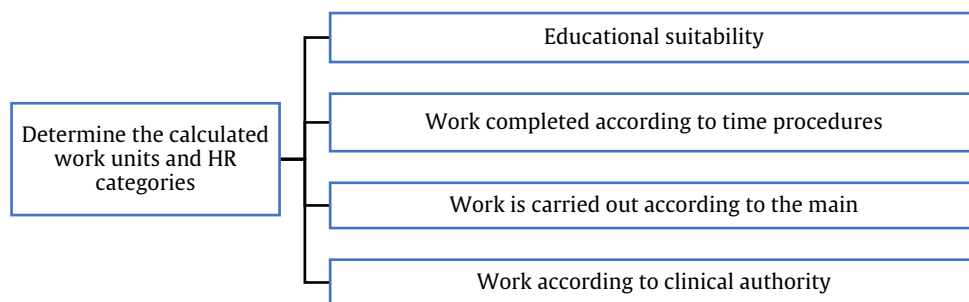


Figure 2. Theme 2 Work Units and calculated HR categories

Table 5. Standard Workload

| No | Activity tree productive | Time (minutes) |
|----|---|----------------|
| 1. | To do amnesia disease | 3 |
| 2. | To do inspection physical and or inspection support (reference) | 3 |
| 3. | To do writing recipe and give counseling | 3 |
| 4. | Communication consultation from the ER/ between specialist | 5 |
| 5. | Patient visits | 15 |

Explore planning in compile standard burden work doctor specialist basic at RSU AMC Yogyakarta.

Activity tree productive direct in study this divided Becomes three activity where is each activity need service 3 minutes, while activity tree productive no direct that is communication consultation from the ER/ between specialist as much as 5 minutes, and 15 minutes to visit the patient. Activity amnesia disease that is activity accept patient good new nor long. Activity inspection physique doctor specialist base covers activity resuscitation, do ultrasound examination, observation pregnancy, action patients, as well as activity resuscitation baby newborn. Activity final that is to do writing recipe and give counseling to patient. other than that there is activity tree productive no direct that is communication

consultation from the ER or between specialists and patient visit activities on the ward take care stay outside working hours in the work unit specialist base.

After knowing activity tree productive so done evaluation standard burden work with formulas and calculations as following.

$$\text{Standar beban kerja} = \frac{\text{Waktu kerja tersedia}}{\text{Rata – rata waktu per kegiatan pokok}}$$

Calculation standard burden work obtained from distribution time work available with average time per activity tree, which shows result 2,328 minutes per year in work units disease in, surgery and obgbyn while in the work unit specialist child earn 2,037 minutes per year .

Table 6. Planning By Setting Workload Standards

| Axial coding | Sub- theme | Theme |
|---|---|--|
| Proportion activity direct bigger | Activity tree productive more dominant and eats time many | Activity tree productive more a lot, so doctor specialist feel burden work when condition emergency and number many patients |
| Activity service direct eat time more many | | |
| Overtime if there is patient many | Condition added emergency time service | |
| There are concurrent activities such as emergency surgery | Patient no a lot and there restrictions total patient | |
| Patient still can served no so burden | | |
| Patient fluctuating and not too many so burden no heavy | | |
| Doctor gives policy restrictions total patient | | |

Based on results interview and search document could concluded that activity tree productive more a lot, so doctor specialist feel burden work when condition emergency and number many patients. Although experience burden enough work high, however there is doctor specialist who thinks that During this patients at AMC still served with good without feel burdened.

Explore planning in compile standard leeway or activity support doctor specialist basic at RSU AMC Yogyakarta.

Based on the data obtained is known that there are 3 factors leeway of them that is meeting committee medical, education and training, and time private. Calculation standard leeway doctor specialist base i.e., 9,360 minutes/year.

After knowing time factor slack so done evaluation standard leeway with formulas and calculations as following.

$$\text{Standar kelonggaran} = \frac{\text{Rata2 waktu per faktor kelonggaran}}{\text{Waktu kerja tersedia}}$$

$$\text{Standar kelonggaran} = \frac{9.360}{32.592}$$

$$\text{Standar kelonggaran} = 0,287$$

Calculation standard burden work obtained from division of average time per allowance factor with time work available, which shows result 0.287. It means that as much as 28.7% each year used doctor specialist base for non- productive activities.

Based on results interview and search document got conclusion that doctor specialist own leeway related activity service outside practice, existence internal meeting, time personal for rest, pray and eat.

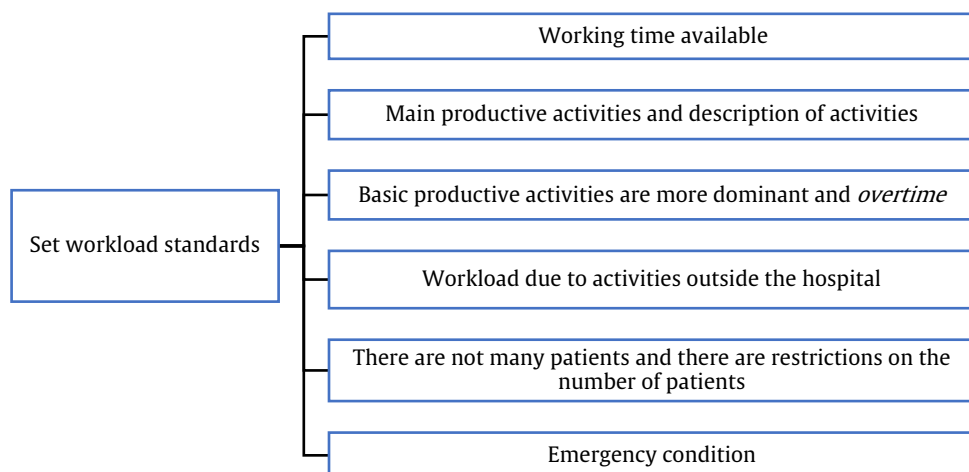


Figure 3. Theme 3 Workload Standards

Table 7
Standard Basic Specialist Doctor Allowance

| No | Slack factor | Frequency | Average time (minutes/year) |
|----|---------------------------|-----------------|-----------------------------|
| 1. | Meeting committee medical | 3 Hours / month | 2.160 |
| 2. | Education and training | 0 Days/ year | 0 |
| 3. | Private time | 20 Mins / day | 7,200 |
| | Total | | 9.360 |

Table 8.
Planning By Setting Standards Loans Or Activities Supporting Basic Specialist at RSU AMC Yogyakarta

| Axial coding | Sub- theme | Theme |
|---|---|--|
| There's a chance for activity service | There is a policy House sick related leeway work | Specialist own leeway related activity service outside practice and existence internal meeting |
| Amount day no restricted | | |
| Some doctors specialist is lecturer teacher | Condition work doctor specialist | |
| Average working hours 2-4 hours | | |
| There are activities meeting online 1-2 hours | There is a meeting a month very with 1-2 hours time | |
| There is a minimum of 1 month very time depends discussed material around 1-2 hours | | |

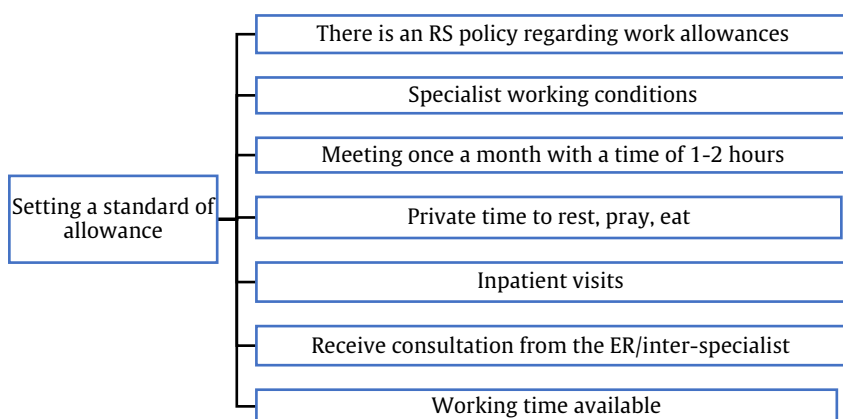


Figure 4. Theme 4 Standard leeway

Explore planning with count need doctor specialist basic at RSU AMC Yogyakarta.

Calculation burden work in study this with use two method in accordance health minister number 33 of 2015 concerning guidelines composing planning need source

power man health. Two methods the that is analysis burden work health (ABK Kes) and standards minimum power. Following analysis standard minimum staff at RSU AMC Yogyakarta.

Analysis result show that the work unit specialist obsgyn and disease in own doctor specialists as many as 3 people

while total doctor specialist in work unit surgery and children as many as 2 people. This thing indicates that doctor specialist The basis of the Yogyakarta AMC General Hospital has the availability of human resources exceeds the required human resources that is as much as 1 person. Whereas for towards House sick type C, show that total doctor specialist surgery and children already in accordance or already sufficient, however total doctor specialist disease deep and obsgyn excess of 1 person.

Calculation need HR personnel with WISN analysis that is with formulas and calculations as following.

$$\text{Kebutuhan tenaga} = \frac{\text{kuantitas kegiatan pokok}}{\text{standar beban kerja}} + \text{standar kelonggaran}$$

Calculation standard burden work obtained from distribution quantity activity tree with time work available added with standard leeway, which is obtained results that highest human resource requirement that is on the specialist content in as many as 8 people need work units disease deep and poly child lack of human resources 1 HR each, while in polyclinic surgery already in accordance availability of human resources with HR needs.

Analysis method burden work health (ABK Kes) and standards minimum staff at RSU AMC Yogyakarta. This thing show existence that HR needs already sufficient. Based on WISN calculation obtained results that House sick still shortage of human resources. This thing of course Becomes consideration management House sick in to do HR planning for in the future. Management House sick need consider additional HR recruitment that can reduce burden work doctor specialist base, or consideration compensation related with performance doctor who has burden work high. Amount visit more patients increased need Becomes attention because each work unit specialist base own totally different visits every year so that burden work different.

Conclusion in discussion this is that HR needs of doctors specialist basic at RSU AMC Yogyakarta already in accordance with standard minimum power according to Permenkes 2015 is a minimum of 2 people. However, based on analysis burden work use WISN method still shortage of human resources, especially in work units poly content, poly child and poli disease in. This thing caused total patients who experience improvement and busy outside the hospital so practice hours at the hospital are only little.

Table 9. Standard Minimum Staff of Basic Specialist

| No | work unit | Available (A) | Required (B) | Gap (C) = A - B |
|----|--------------------|---------------|--------------|-----------------|
| 1. | Specialist content | 3 | 2 | 1 |
| 2. | Surgery | 2 | 2 | 0 |
| 3. | Disease in | 3 | 2 | 1 |
| 4. | Child | 2 | 2 | 0 |

Table 10. WISN Analysis on Basic Specialists

| No | work unit | Available (A) | Required (B) | Gap (C) = A - B |
|----|--------------------|---------------|--------------|-----------------|
| 1. | Disease in | 3 | 4 | -1 |
| 2. | Surgery | 2 | 2 | 0 |
| 3. | Specialist content | 3 | 11 | -8 |
| 4. | Child | 2 | 3 | -1 |

**Table 11
Planning with Count Specialist Doctor Needs**

| Axial coding | Sub- theme | Theme |
|--|---------------------------------|---|
| Need power specialist not ideal yet Doctor 's limitations so that less than optimal service Not fulfilled by balanced | Need not yet sufficient by draw | Need doctor specialist not yet sufficient, even though each work unit already there is doctor on duty |
| Busyness doctor outside House sick Activities outside of AMC become burden doctor busy outside AMC provide impact on home sick | Doctor has activity many | |
| Already sufficient because every poly surgery already there is doctor | Already sufficient | |

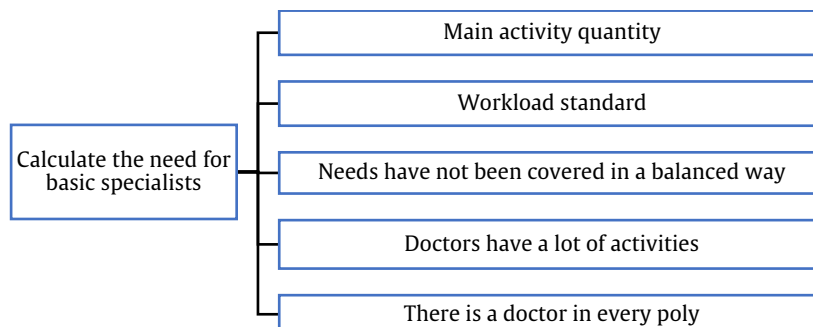


Figure 5. Theme 4 Needs of Basic Specialist Doctors

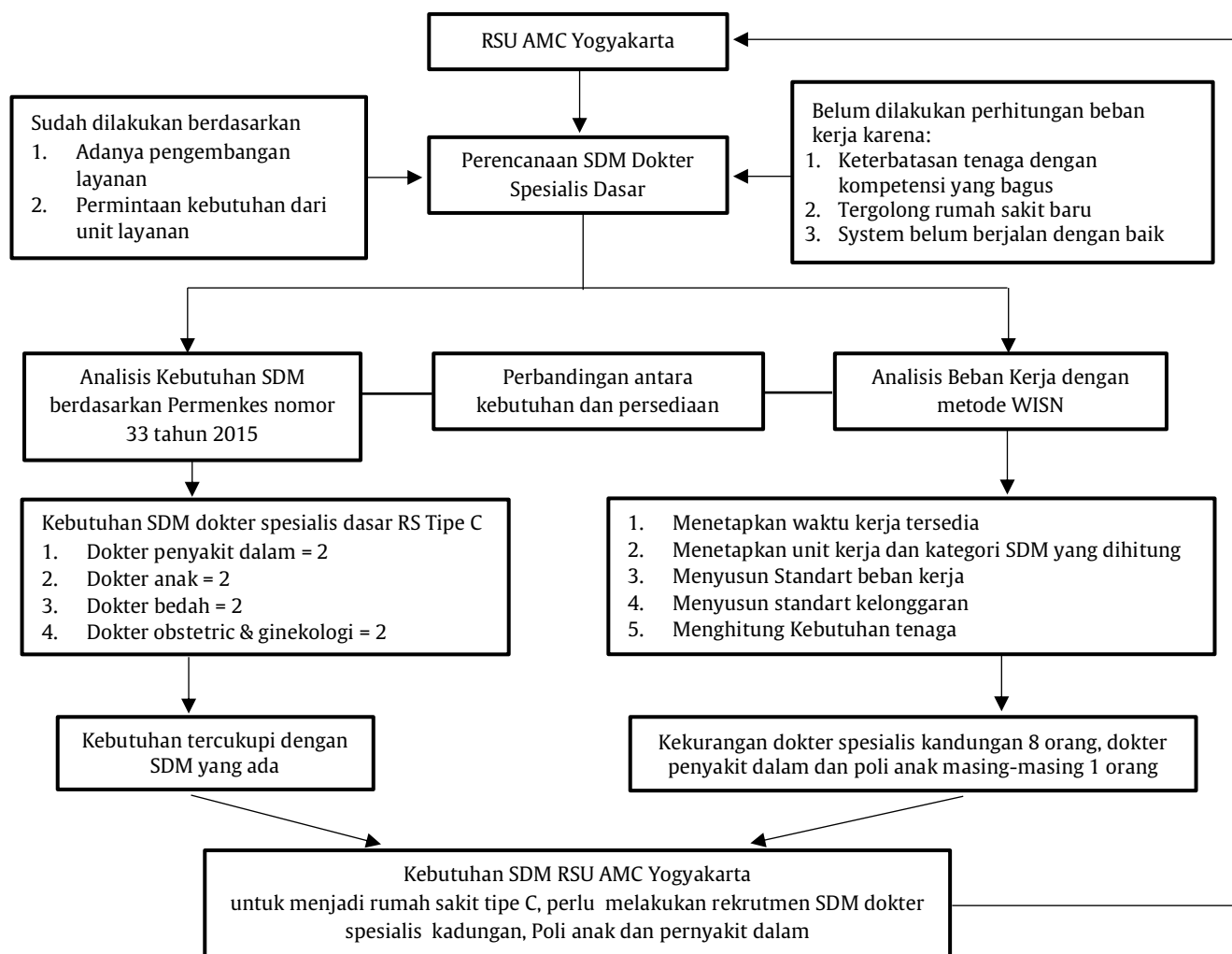


Figure 6. Human Resources Planning for Basic Specialist Doctors at AMC Hospital Yogyakarta

DISCUSSION

Set time work available

Working time available is time available effective obtained with counting day work During one year for power doctor working specialist in a work unit at RSU AMC Yogyakarta reduced a number of factors that cause somebody no could work. Specialist base that is not could work the could because paid leave annual, education and training, day holiday national and absent work. Result of calculations that have been done, got time work available doctor specialist basic at RSU AMC Yogyakarta in a year is 32,592 minutes/year.

According to Regulation Menpan RB No. Per/87/M.PAN/8/2005 number of hours worked effective in day work per week is 37.5 hours. Whereas by more Specific according to according to Kepmenkes No. 81 Year 2004 time work available for Specialist category is 207 days or 1,656 hours per year or 99,360 minutes per year. If compared with time work available based on the WISN method, the working hours in the work unit specialist The basics of RSU AMC Yogyakarta are lacking from set standard Men.PAN even kepmenkes.

Based on results study previously done by Fatuhu is known time work available at the NTB Provincial Hospital in period 1 year time is 112, 560 minutes. Required data for set time work available is day work 250 days per year, leave

yearly 12 days per year, education and training 6 days per year, days holiday national 19 days per year, no attendance work, time work 8 hours per day (Fatuhu. M et al., 2021).

Research conducted Sitti Nurjanah time working on Lavender room, room The orchid and jasmine room at the Kendari City Hospital are still far bigger compared research at Meuraxa. General Hospital where time available of 102,816 minutes per year¹⁵ or research that counts time work nurse in the room take care stay Children of RSIA Hermina Podomoro amounted to 125,76016. This thing because difference in gift day leave, difference minimum training time, as well as tolerance no enter work (Nurjanah et al., 2017).

Annual leave in study this as much as 12 days with consideration paid leave one day the month. Study previously done by Seno Bayu RW at the Jakarta Hajj Hospital, he got paid leave annual as much as 12 days for employee fixed , average whole staff utilise all time paid leave annual for extend day holiday national or necessity personal other (RW, Seno Bayu, 2015) .

holidays national in study this customized with a Joint Decree signed by the Minister of Religion, the Minister of Manpower, and the Minister of Empowerment State Apparatus and Reform Bureaucracy (PANRB) for 20 days. the SKB is effort efficiency and effectiveness day work as well as give guidelines for agency functioning government and private give service direct to public as House sick center

health public in carry out day holiday national (Tumangger, 2020).

In law Number 36 of 2014 is regulated about rights and obligations power health. That thing contained in Articles 57 and 58 which read: power health Got opportunity for develop his profession. Health facilities responsible answer to doctor in effort enhancement Skills as well as knowledge, thing this aims to reduce things that are not expected in give service health to patient. In an effort enhancement quality power health at home sick specifically to doctor, then often held training such as seminars or bring doctor consul to House sick. General practitioner status as employee permanent (PNS) can submit scholarship take education specialist to party House sick or government (Maya Hajrianti Saragih, 2018)

Determine the calculated work unit and HR category

According to Gultom and Sihotang obtaining work units or responsible HR category answer in organize activity service individuals, families and communities inside and outside House sick is function from determine the work units and categories of HR in WISN calculation (Gultom and Sihotang, 2018). work unit Health Human Resources or power 4 units of health at RSU AMC Yogyakarta work specialist base consist from specialist obstetrics, surgery, disease inside and child.

Based on results documentation and interviews all power health with category education doctor specialist and already once follow training or follow training. Officer health expected Keep going Upgrade standard quality as officer capable health dominate whole tasks and functions tree. According to Permenkes No. 55 year 2013 activities service patient carried out by Health HR experts.

Required data and information for determination of work units and categories of HR are chart structure organization and description Duty principal and function , personnel data , standard profession, standard service and standard operational procedure (SOP) is very assist the process of determining work units and HR categories at home sick (Zavihatika, S et al., 2020).

Mangkunegara theory which suggests there is a number of indicators from performance, that is quality, quantity implementation duties and responsibilities answer on her job. For Upgrade optimal service is necessary existence quality from how much good power health to do her job. Quantity work from how long power health to do her job in one day, if lack of human resources need existence additional HR. Implementation Duty from how much far employee could complete accurate work without error, because if there is error will result in sub optimal service. responsibility on profession in carry out her job (Mangkunegara , 2014).

Doctor's performance specialist base as HR at AMC Yogyakarta Hospital already good because could complete profession in accordance procedure set time. One indicator success House effective and efficient pain is Availability of sufficient human resources with high quality professional in accordance with functions and tasks every personnel. Availability of home human resources sick customized with need House sick based on type House illness and services provided to House sick (Wanri, Arwansyah, 2018). Mainly planning HR needs appropriate in accordance with function service each unit, part and installation House sick (Hartomo, A, 2013). This thing intended so that the function House sick could walk with ok then HR competencies should be in accordance with HR specifications needed House sick (Ilyas, Yaslis, 2004).

Profession done doctor specialist not basic either free from duties and authorities clinic at home sick. HR holds tall

standard practice medical in carry out work at RSU AMC Yogyakarta. The 1945 Constitution and the Constitution of the World Health Organization (WHO) as well as Invite invite Number 36 of 2009 concerning Health (hereinafter abbreviated as Health Law), stipulates that health is right basic human who is every fundamental right citizens and must realized with effort enhancement level health high society (Achmad Hafiedz et al., 2017).

Basically, all service health that occurs in a House pain and consequences Becomes not quite enough answer institution House sick that alone, thing this in accordance with provision regulation legislation that regulates about housekeeper sick. Therefore, House sick should arrange whole service health carried out by personnel nursing like that look to be safe for patient.

The results of the research of Achmad Hafiedz et al., show that application provision about authority clinical in action Surgery at the hospital is done through the credentialing process *carried* out by the Committee Medical for determine appropriateness somebody get authority clinical (clinical privilege) in operate action medical including surgery in period certain. Protection principal law for patient could fulfilled in action surgery in hospital with carry out governance good clinical governance for staff the clinician. Application provision about authority clinical (*clinical privilege*) in action surgery in the hospital causes could fulfilled principle protection law for patients in hospitals (Achmad Hafiedz et al., 2017).

Setting standards burden work

Standard burden work doctor specialist base in study this based on activity tree productive During work consisting of from to do amnesia disease, do inspection physical fund or inspection support, as well as To do writing recipe and give counseling. Interview results show that Activity direct according to a number of informants is known that the proportion more big compared with activity direct impact on more many time needed in give service to patient. That thing showing that activity doctor specialist base enough solid. Standard burden work influenced by the length of each activity carried out by the officer health that is ask type patient new / old, asking for social data , writing patient data on the form, writing register book , history taking , results inspection and so on (Ultimate & Kusmiati, 2021) .

Decree of the Minister of Health of the Republic of Indonesia in 2004 stated that: that standard burden work is volume/ quantity burden work for 1 year per HR category. Standard burden work for something activity tree arranged based on time needed for completed it (average time) and time work available owned by the Doctor. Standard burden work doctor specialist base obtained through calculation ratio average time required activities tree with time work available owned During period time one year.

Calculation results standard burden work done at RSU AMC Yogyakarta is 2,328 minutes / year in the disease unit in, surgery and obggyn. work unit doctor specialist base enter in care unit category road. Study previously is known that need burden work for registration take care walk 452,375 min (Ningsih et al., 2021). Other research shows Specialist Doctors Obstetrics and Gynecology available at the hospital. Calculation time available jobs for doctor specialist is 1422.4 hours/person/ year or 256,032 minutes /person/ year (Ningsih et al., 2021) . Other research known that obtained WISN ratio that is of 1.17 (>1) which means that burden work and amount staff no in accordance because total staff excess. Amount power existing health moment this more many

compared to what is needed for overcome burden existing work (Kuswandani et al., 2021).

Based on information obtained that doctor specialist base on duty already in accordance with function with give service to patient with fine, however there is a number of complaining about activities power doctor specialist base in implementation activity tree doctor specialist base. Activity service doctor specialist base need many times, more when there is condition bad emergency immediate patient need handling by intense by doctor specialist. Amount fluctuating patient cause sometimes doctor specialist feel work overload, though Thing this no often happen. Study results previously doctor own pressure burden very work high (WISN ratio 0.43). There is a burden different work between category the same staff at the facility different health. If only position empty filled, load work reduced. Though, the amount approved doctors and nurses more from need actually (Joarder et al., 2020).

Activity no other productive due to from the condition factor work doctor the majority of specialists is lecturer teacher so that possibility own other activities outside House sick as training and training very a lot. Study this in line with study Sad that mentions that category doctors and doctors specialist base own burden different work in each work unit Thing this no means doctors and doctors specialist base should operate every burden existing work, however they do too various other activities that take up working hours available at its disposal (Nengsih, 2014).

The application of WISN allows manager health for analyze burden work nurse, counting need staff, and with thus by effective contribute to the planning process power work (Nguyen et al., 2022). Lack of fulfillment need source power man House sick give influence burden high work to power health and cause decline satisfaction to service patient, increase desire move work and decline quality safety patient (Nasution et al., 2020).

Based on the above explanation, it is known that activity doctor specialist base direct and not direct own burden work more big compared no productive. With standard burden work the could concluded that burden work per year doctor specialist The basics at AMC Yogyakarta Hospital are enough high. Although has obtained standard burden work no means a power doctor specialist base expected work her job as much standard burden work that. A number of other activities outside activity service health is also carried out by personnel doctor specialist base so that confiscate time work available at his disposal, such as profession as well as lecturer teacher.

Setting standards slack and slack factor

Standard leeway earned from results observation and interview is 0.287 per year. Standard leeway obtained based on factor leeway of them To do meeting committee medical, education and training, and time private. Calculation result could interpreted that about 28.7% of time spent work in carry out Duty extras that don't related with Duty tree.

Study previously show that every doctor general have an allowance factor of 0.22 or takes 22% of the total time work available for To do activity addition (Akbar et al., 2020). According to Rusli, Nusri, and Faric, the factors leeway reduce time work available. opposite with burden work, standard leeway is time for to do other activities outside activity tree, meaning for work factor leeway the reduce time work available that exist (Rusli, Nusri, and Farich, 2013). Standard the long slack will influence addition total power health. Not infrequently power health indicates burden long work and in

the end extend time implementation profession (Soesanto & Ersyad, 2019).

Interview results is known that there is policy related with leeway work doctor specialist base. This thing shows that doctor specialist base own opportunity for to do outside activities House sick as activity service for education nor training. Research studies previously explain that doctor working public more than 5 years feel very need or want existence refresh or enhancement ability through activity training or course. Training have share big in Upgrade skills and abilities doctor for more maximum in give service to patient, other than that training have objective for Upgrade efficiency and effectiveness work doctor in reach target work that has been set (Maulidiyah & Zainafree, 2022).

Apart from that, it's also leeway enter in category rest. Study percentage use time activity no productive that is by 19.99% where results study show that leeway time related non-productive activities uaoti activity the person who owns percentage biggest is ishoma with total percentage 8.37% (Cania, 2020).

slack factor is also visible from existence internal meeting held House sick. hospital General AMC Yogyakarta is also routine to do monthly internal meeting with range 1 to 2 hours. Research conducted by Alfianto & Zakiyah that standard leeway Record Unit staff time District Hospital Medical Wonogiri is 0.13. Allowed time to officer already in accordance description time leeway according to WISN method where time leeway given one for necessity meeting (Alfianto & Zakiyah, 2015).

Count need power

According to the Decree of the Minister of Health of the Republic of Indonesia No. 81/Menkes/SK/I/2004 one of the methods that has been developed Ministry of Health for count need power House sick is the Work Load Indicator Staff Need (WISN) method, which is load - rooted work personnel. Calculation method need based on burden work (WISN) is indicator showing big need power on the facility health based on burden work, so allocation / relocation power will easier and more rational. Excess method this easy operate, easy used, by technical easy applied, comprehensive and realistic.

Based on health minister number 33 of 2015 needs power doctor specialist base as many as 8 people, while doctor specialist there are 10 people in AMC Yogyakarta General Hospital. Calculation standard burden work obtained from distribution quantity activity tree with time work available added with standard leeway, which is obtained results that highest human resource requirement that is on poly content as many as 11 people while in the poly surgery already in accordance availability of human resources with HR needs. Research results previous by Kusumah based on analysis WISN method obtained total need power as many as 3 officers, but for moment this there are 2 officers so need existence addition officer at registration as much as 1 person, so profession Becomes more fast and patient no too long in queue (Kusumah, 2021).

Interview results show that HR needs yet sufficient ideally. not balance occurs in several work units specialist because there is many patient. Research studies previously based on analysis need with use analysis burden work health there is one health center that should have 3 doctors general because burden high and high work total visit the patient must served. Lack doctor public at the health center impact on the load work doctor general must serve patient with large amount so that services provided no maximum and have an

impact on excess working hours doctor general health center Muna district (Akbar et al., 2017).

Number of visits experience enhancement every month, and also activities doctor outside House sick and become a managerial HR Becomes obstacles that lead to burden work doctor specialist high base. in line with study previously that Lack doctor common thing because existence power health doctor general no longer work in accordance with Duty subject and task support because a doctor general work in field managerial that is as head Public health center so that make no effective service health health center because a doctor general more many use time for activity managerial as head Public health center (Akbar et al., 2017).

Number of working hours doctor who looks excessive already Becomes highlight national and international in a number of time last. Amount number of hours worked compare straight with burden work great doctor. A number of suspected thing Becomes reason enhancement burden work doctors, including the number of increased patient, spread a doctor who doesn't evenly, complexity disease more patients height, and total project study doctor who is getting a lot. Lack of appreciation to profession the doctor also suspected as trigger Settings total work too many doctors. Increase burden work could impact negative on safety doctors and patients during working hours, which can lead to increase lawsuit medical. because of that , needed system work as well as clear and effective policies for arrange number of hours worked doctor (Baharuddin et al., 2017).

Fulfillment power doctor specialist base with use this WISN method of course not Becomes absolute method made by planners House sick, however as one method from government for make it easy in fulfillment and distribution from power health. This WISN method could used in all work units, the calculation more real because based on burden real work. However, there is weakness from method this according to Permatasari who made method this not enough accurate. This thing because power health no carry out his job in accordance with Duty basically, how work using year data before and not notice productivity power work (Permatasari & Pudjirahardjo, 2015).

Planning power medical specialist

Hospital as facility service health plenary in development field health. For could see quantity as well as quality service health that has given so influence source power man is point success something service. because of that for could control quantity and quality service health base on the hospital then need done analysis burden work power health in hospital. According to research by Akbar et al., analysis burden work with use WISN method is able answer need General Practitioners (Akbar et al., 2020).

For reach optimal service, needed structure ideal work. Doctor as one component service health hold important role in service health (Baharuddin et al., 2017) . Implementation policy doctor on-site guard specialist who hasn't walk with ok, can caused because factor communication, disposition and structure organization not yet walk good and still many needs endorsement source power. Suggestions given is addition and competence power in accordance standards, SOP revisions, provision of communication media, improvements facilities, improve coordination and function supervision by periodically, advocacy to Indonesian Ministry of Health (Anhar, 2015).

Research results this show that calculation HR needs at AMC RSU have been done however not optimal, because is known that for HR doctors specialist base not yet done

analysis calculation HR needs. Whereas according to Permenkes No. 33 of 2014 in Article 2 is mentioned that calculation health human resource needs must implemented by the facility health. Planning source power man Health (HR) is a process of systematic in effort set the number and qualifications of HRK needed (Minister of Health RI, 2015).

Planning HRK needs aim for produce proper plan based on method appropriate planning in skeleton reach objective development health (Minister of Health RI, 2015). Fulfillment power doctor specialist base with use this WISN method of course not Becomes absolute method made by planners House sick, however as wrong one method from government for make it easy in fulfillment and distribution from power health. This WISN method could used in all work units, the calculation more real because based on burden real work. However, there is weakness from method this according to Permatasari who made method this not enough accurate. This thing because power health no carry out his job in accordance with Duty basically , how work using year data before and not notice productivity power work (Permatasari & Pudjirahardjo, 2015).

planning at AMC Yogyakarta General Hospital is carried out in period short medium however not yet done by thorough. According to Permenkes Number 33 of 2015 that planning HRK needs are compiled by periodic with period 1 (one) year for planning need period short (annual) and long-term 5 (five) or 10 (ten) years for planning need period medium (Minister of Health RI, 2015).

HR planning efforts show presence of inhibiting factors of them limitations energy and knowledge in count burden HR needs. In addition, AMC Yogyakarta RSU is also a House sick new so the system hasn't walk with good. Study previously show that problem planning HRK needs on input include policy government area and complex ASN management, competence power low planner , support minimal financing , and data and system utilization information that has not been optimal (Sumiarsih & Nurlinawati, 2019).

LIMITATIONS OF THE RESEARCH

Study this is study qualitative descriptive obtained from result data Interview depth and documentation. Study this no to do observation by direct for obtain the required data in analysis burden work power health because limitation time researchers, so that the data obtained only character perception based on experience from informant research.

CONCLUSION

1. Working time available doctor specialist base based on total time effective work at RSU AMC Yogyakarta is 32,592 minutes/year which shows not enough from set standard Men.PAN even keppemkes due to working hours doctor specialist only 2 hours.
2. work unit doctor specialist base consist of 4 types specialist covers disease in as many as 3 people, specialist 2 children, specialist obsgyn 3 people and specialist surgery as many as 2 people. Category medical human resources education specialist at RSU AMC Yogyakarta is a specialist master, so that doctor specialist base To do profession in accordance procedure work, duties and authorities clinical.

3. Standard burden work doctor specialist the base rate at RSU AMC Yogyakarta is 2,328 minutes/year. workload doctor based on activities productive where more dominant, burden work because outside activities House illness and condition emergency nor total many patients.
4. Standard leeway time doctor specialist base at RSU AMC Yogyakarta is 0.287 with the average time factor leeway 9,360 minutes / year. leeway time used for carry out meeting, and time personal (rest, pray, and eat).
5. HR needs already in accordance standard Minimum personnel per Health Minister 33 of 2015 the human resource needs of AMC Yogyakarta General Hospital have been fulfilled with minimum number of each work unit specialist base 2 people. HR Needs based on this WISN Method could used in all work units, the calculation more real analysis burden work results that House sick still shortage of human resources, with need additional human resources at the poly content as many as 8 doctors, poly specialist disease in and children each 1 doctor.
6. Planning need Human Resources doctor specialist Asri Medical Center (AMC) Yogyakarta base towards to House sick type C, for could control quantity and quality service health hospital base. Analysis burden work power health at the hospital with WISN method is able answer need doctor staff. Calculation need HR at AMC RSU already done however not optimal, based on burden real work HR planning at RSU AMC Yogyakarta is still shortage of human resources, with need additional human resources in the work unit specialist content, poly children and disease in, in periodic with period 1 (one) year for planning need period short (annual) and long- term 5 (five) or 10 (ten) years for planning need period medium.

RECOMMENDATION

1. Working time available doctor specialist, The basics at AMC Yogyakarta Hospital are lacking from set standardn Men.PAN even keppemkes. Director House sick for increase working hours doctor specialist base by gradually with permanent consider burden work doctor specialist base in accordance with its performance.
2. Category education doctor specialist basic at RSU AMC Yogyakarta already appropriate, however anything else needed considered is existence education or training that can provided by the internal management of the house sick so that knowledge and competence doctor specialist could always follow development knowledge medical moment this.
3. Workload doctor specialist base enough high, so doctor specialist need consider a number of other activities outside activity service the health that can confiscate time work. Share the house sick for To do calculation burden work seen by more detail as time activity tree productive as activity inspection physique doctor specialist base covers activity resuscitation, do ultrasound examination, observation pregnancy, action patients, as well as activity resuscitation baby new births that count activity.
4. Leeway time doctor specialist The basics at AMC Yogyakarta Hospital are enough tall so that need done observation and calculation return based on condition real in the field related with for carry out meeting, or time personal as rest, pray, and eat.
5. Hospital need add power doctor specialist basic at RSU AMC Yogyakarta especially doctor specialist gynecologist

and doctor disease in so that HR needs are met. Addition doctor specialist base need consider burden work each work unit, so that could work optimally and provide service by maximum to patient.

6. hospital need to do analysis burden work in real time at RSU AMC Yogyakarta with to do observation by directly to each work unit specialist because burden work every specialist vary. Hospitals also need add special human resources capable of to do calculation burden HR work so that obtained description HR planning for in the future. HR planning Periodic is also necessary done good period short nor period medium.
7. Researcher next could choose method more planning good for got effective method. Study this can also developed related with HR recruitment with expand discussion as dig information related with the HR planning process starting from the recruitment process, selection until action evaluation. work unit research can also added no only doctor specialist base in poly take care Street but also in poli other or part take care stay so that obtained description by thorough.

ACKNOWLEDMENT

The study is supported by Universitas Muhammadiyah Yogyakarta, and the authors would like to express the gratitude for the research grant by postgraduate director faculty of Universitas Muhammadiyah Yogyakarta.

Conflic of Interest

Threre is no conflic of interest for this manuscript.

REFERENCES

- Achmad Hafiedz, Azis Kartamihardja, P. Lindawaty S. Sewu, & Tri Wahyu Murni S. (2017). Clinical Authority in Surgical Actions and the Principle of Legal Protection for Patients. *Journal of Health Law*, 3, 2.
- Akbar, MI, Ali, L., & Ratnawati. (2020). A Study of the Need for General Practitioners Using the Workload Indicator Staff Need (WISN) Method at the General Poly and Emergency Unit (Ugd) at the North Buton District Hospital. *MIRACLE Journal Of Public Health*, 3 (2), 153-162. <https://doi.org/10.36566/mjph/Vol3.Iss2/173>
- Akbar, MI, Arifin, MA, & Thaha, RM (2017). Map of General Physician Needs Based on Workload to Achieving Optimal Health Service Degrees at Public Health Centers in Muna Regency. *ANN Health*, 7, 8.
- Alfianto, L., & Zakiyah, E. (2015). Analysis of the estimated number of medical record human resources in the filing unit using the WISN (Warl Load Indicator Staff Need) method at the Wonogiri District Hospital in 2014. *JMS Indonesian Journal On Medical Science*, 2(1).
- Anhar, K. (2015). Analysis of Policy Implementation Specialist Doctors on Site Watch in the Emergency Installation of Dr. Hospital. Mohammad Hoesin Palembang. *Department of Health Administration and Policy, Faculty of Public Health, University of Indonesia*, 1, 14.
- Baharuddin, M., Lefrandt, R., & Santosa, F. (2017). Review of Ethics for Doctors Working Hours Regulations in Indonesia. *Indonesian Journal of Medical Ethics*, 1, 25. <https://doi.org/10.26880/jeki.v1i1.6>

- Cania, L. (2020). Manpower Needs Based on Workload with Workload Indicator Staffing Need Method. *HIGEIA JOURNAL OF PUBLIC HEALTH RESEARCH AND DEVELOPMENT*, 4, 11.
- Chrismawanti, M. (2020). REVIEW OF HUMAN RESOURCES NEEDS IN MEDICAL RECORD BASED ON HEALTH WORKLOAD ANALYSIS METHOD (ABK-Kes) AT DARMAYU PONOROGO GENERAL HOSPITAL. *Journal of the Pomegranate Hope*, 7(1), 48–57. <https://doi.org/10.31935/delima.v7i1.95>
- Fatuhu, M. S., Ningsih, DN, Yanti, & NKW, Khairani. F. (2021). Analysis of Medical Record Workforce Needs Using the Workload Indicator Staff Need (WISN) Method in the Assembling Section at the NTB Provincial Hospital. *Scientific Journal of Health*, 1, 2.
- Fauzi, Efendy, I., & Moriza, T. (2020). *Implementation of Human Resource Development for Health Workers at Pidie Jaya General Hospital in 2019*. 2(1), 9.
- Fauziah, L., Sukoco, JB, & Maesaroh, M. (2018). Effective Human Resource Planning in an Effort to Improve Performance in the Vocational School of Diponegoro University. *Proceedings of the National Seminar on Office Administration Education*, 0, Article 0. <https://jurnal.uns.ac.id/snpap/article/view/27898>
- Hartomo, A. (2013). *Overview of Administrative Unit Workload at Unhas Hospital*. Faculty of Public Health.
- Ilyas, Yaslis. (2004). *Hospital HR Planning, Theory, Methods, and Formulas, Center for Health Economics Studies FKM-UI*. Prima Business CV.
- Joarder, T., Tune, SNBK, Nuruzzaman, M., Alam, S., Cruz, V. de O., & Zapata, T. (2020). Assessment of staffing needs for physicians and nurses at Upazila health complexes in Bangladesh using WHO workload indicators of staffing need (WISN) method. *BMJ Open*, 10 (2), e035183. <https://doi.org/10.1136/bmjopen-2019-035183>
- Kusumah, RM (2021). Analysis of the Manpower Needs for Registration Officers Based on the Workload Indicator Staffing Need (WISN) Method at UPTD Puskesmas X in 2021. *MANNERS*, 4(2), 129–141.
- Kuswandani, F., Lestari, D., & Balaif, FF (2021). Analysis of the Workload of Pharmacy Technicians at the Pharmacy Installation of the RSGM Universitas Padjadjaran with the Workload Indicators of Staffing Needs Method. *Indonesian Journal of Clinical Pharmacy*, 10 (3), 198–208. <https://doi.org/10.15416/ijcp.2021.10.3.198>
- Mangkunegara, AAAP (2014). *Company Human Resources Management*. PT Youth Rosdakarya.
- Manik, Y., & Simorangkir, D. (2020). Analysis of Human Resource Needs in the Emergency Room (IGD) to Accelerate Response Time with the Discrete Event Simulation Method (Case Study: IGD RSU HKBP Balige). *Journal of Industrial Engineering Systems*, 22 (2), 78–87. <https://doi.org/10.32734/jsti.v22i2.3943>
- Marhaeni, NP (2019). JOB ANALYSIS AND HUMAN RESOURCE PLANNING AND THEIR EFFECT ON RECRUITMENT METHODS. *Journal of Applied Business*, 3 (02), 129–136. <https://doi.org/10.24123/jbt.v3i02.2508>
- Maulidiyah, N., & Zainafree, I. (2022). Needs Analysis and Development of General Practitioners at the Nglatiyan Public Health Center, Semarang City. *Journal of Public Health (Undip)*, 10(1), 122–129. <https://doi.org/10.14710/jkm.v10i1.32085>
- RI Minister of Health. (2015). *Regulation of the Minister of Health of the Republic of Indonesia Number 33 of 2015 concerning Guidelines for Planning for Health Human Resource Needs* (Patent No. 33).
- Nasution, AN, Nasution, SLR, & Nasution, SW (2020). Calculation of Medical Personnel Needs Based on Workload Indicators of Staffing Need (WISN): Case Studies at Rs A, Rs B, Rs C, Rs D. *Muhammadiyah Nursing Journal*, 5 (2), Article 2. <http://dx.doi.org/10.30651/jkm.v5i2.6195>
- Nguyen, TTH, Phung, HT, & Bui, ATM (2022). Applying the workload indicators of staffing needs method in nursing health workforce planning: Evidences from four hospitals in Vietnam. *Human Resources for Health*, 19 (Suppl 1), 124. <https://doi.org/10.1186/s12960-021-00668-y>
- Ningsih, SW, Hakam, F., & Asriati, Y. (2021). Analysis of the Need for Medical Records Using the Workload Indicator Staff Need (WISN) Method at the UPTD of Weru Health Center 2020. *Journal of Information Management and Health Administration*, 3 (2), Article 2. <https://doi.org/10.32585/jmiak.v3i2.1005>
- Nurjanah, S., Sakka, S., & Paridah. (2017). Analysis of the workload of nurses in the inpatient installation of the Kendari City General Hospital in 2016. *Scientific Journal of Public Health Students*, 2, 5.
- Pamungkas, G., & Kusmiati, E. (2021). Workload Analysis of Health Human Resources (HR) at the Ciwidey Health Center, Bandung Regency Using the Workload Indicators Of Staffing Need (WISN) Method. *Immanuel Journal of Health*, Volume 14 Number 1, 9.
- Permatasari, ED, & Pudjirahardjo, WJ (2015). Weaknesses of Workload Indicators of Staffing Need as a Method of Calculation of the Number of Health Worker Needs at the Puskesmas. *Journal of Indonesian Health Administration*, 3 (1), 89. <https://doi.org/10.20473/jaki.v3i1.2015.89-98>
- RW, Seno Bayu. (2015). *Analysis of Manpower Needs Based on Workload at the BPJS Registration Counter for Hajj Hospital Jakarta in 2015*. <http://repository.uinjkt.ac.id/dspace/handle/123456789/33010>
- Sjafitri, H., & Juniarti, S. (nd). *The Influence of Human Resource Planning and Work Placement on the Performance of ATI Padang Polytechnic Employees*. 9.
- Soesanto, D., & Ersyad, T. (2019). Calculation of Nursing Personnel Needs Based on WISN at Rs. Gotong Royong. *Journal of Health Sciences*, 12(02). <https://doi.org/10.33086/jhs.v12i02.554>
- Sumirsih, M., & Nurlinawati, I. (2019). Problems in Planning for Health Human Resource Needs in Districts/Cities. *Journal of Health Services Research and Development*, 182–192. <https://doi.org/10.22435/jpppk.v3i3.2657>
- Suryanto, H. (2020). Analysis of Workload and Human Resource Needs for Medical Record Officers at the Adan-adan Health Center, Kediri Regency. *Journal of Medical Records and Health Information*, 3 (1), 29–35. <https://doi.org/10.31983/jrmik.v3i1.5514>
- Tumangger, D. (2020). *23 Days of National Holidays and Joint Leaves in 2021*. Ministry of Empowerment of State Apparatus and Bureaucratic Reform. <https://www.menpan.go.id/site/berita-terkini/libur-nasional-dan-cuti-bersama-tahun-2021-sebanyak-23-hari>
- Wanri, Arwansyah. (2018). Analysis of Administrative Personnel Needs Based on Workload With Work Sampling Technique Using the Wisn Method in Order to Improve the Quality of Outpatient Service Unit Rs. Dr. Jambi Bratanata 2018. *Jambi Public Health Journal (JKMJ)*, 2, 2.
- Zavihatika, S, Syari, W., & Prastia, TN (2020). Analysis of Radiology Workforce Needs Seen from the Workload at the Radiology Installation of the Bogor Islamic Hospital in 2020. *Journal of Public Health Students*, 3, 5.

