



# Analysis of Management of Consumable Medical Materials during the Covid-19 Pandemic in Pharmaceutical Installations Health Department of Baubau City

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## Abstract

Consumable Medical Materials are medical devices intended for single use, whose product list is regulated in laws and regulations. The stock of medical consumables available at the Baubau city health office is incomplete and unable to meet the needs of the Public health center. The purpose of the study was to analyze the management of Medical Consumables during the COVID-19 pandemic at the Baubau City Health Office pharmacy installation. This research is a qualitative research. Interviews were conducted with 5 key informants and 2 additional informants. Data collection techniques used in-depth interview techniques, observation techniques and documentation techniques for validating data using triangulation, namely triangulation of data sources, theory triangulation, and method triangulation. The results showed that the management of Medical Consumables during the covid-19 pandemic had not run optimally, because the planning had not used the ABC method, calculating the maximum and minimum stock, there was still a lack of knowledge of human resources about the planning of Medical Consumables and the frequent delays in collecting usage reports. Public health center. The budget for the provision of medical consumables comes from a special allocation fund for the health sector, but it is still very lacking because it has not been able to meet the planning for the need for medical consumables. Procurement of medical consumables is carried out using the E-Purchasing system but it has not gone well because there are still some providers who cannot fulfill the order due to lack of raw materials and lack of stock of raw materials. Storage of Medical Consumables uses the First In First Out and First Expired First Out system but the storage area is still limited. There are still the number and types of Consumable Medical Materials that have not been ordered by the Public health center at the time of distribution because the stock of supplies at the Pharmacy Installation is not sufficient.

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## Introduction

The Healthy Indonesia Program is a form of implementation of the 5th Nawacita, with the goal of this program being to improve the health and nutritional status of the community through health efforts and community empowerment supported by financial protection and equitable distribution of health services. One part that plays a very

important role in supporting the Healthy Indonesia Program is the Directorate General of Pharmacy (Kemenkes RI, 2019).

The form of support for the realization of the program is by providing pharmaceutical management training activities at Regency/City Pharmacy Installations which in the discussion that

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in addition to drugs and vaccines, essential components of a health service also include Consumable Medical Materials (BMHP) (Setditjen Farmalkes, 2020). In addition, other efforts made by the Government to expand the coverage and equitable access to health supplies are by providing a Special Allocation Fund (DAK) in the pharmaceutical service sub-sector to the Regency/City government for the provision of health supplies (Drugs, BMHP and Vaccines) at the district/city level, which started in 2010. Meanwhile, in order to improve the ability of good health supply management, guidance is carried out on pharmaceutical staff managers and assessments of pharmacist managers who excel in pharmaceutical installations at the provincial/district/city level (Kemenkes RI, 2019). The problems that often occur in the field and which are handled by pharmaceutical personnel in the event of a COVID-19 disaster or pandemic include BMHP that is damaged or past its expiration date and limited selection of BMHP due to insufficient stock or insufficient stock availability and increasing demand for BMHP by the public health workers in the event of a disaster or Covid-19 for the sake of implementing optimal health services for the community. Thus, the management of health supplies (drugs, BMHP and vaccines) in the event of a COVID-19 disaster or pandemic should be in accordance with the needs, so that health supplies during preparedness, emergency response, reconstruction and rehabilitation can be managed properly (Kemenkes RI, 2020).

Because of these problems, the pharmaceutical installation of the Baubau City Health Office must manage BMHP properly. Where the management of BMHP is a series of activities involving aspects of planning, procurement, storage and distribution, as well as rational use of BMHP. Effective management of BMHP lies in a policy and legal framework that builds on and supports public commitment to the supply of essential BMHP and is affected by economic issues (Embrey, 2012). The results of previous research conducted by Mela Amanda, et al (2021) aimed to determine the management of pharmaceutical preparations and differences in the level of conformity in aspects of planning, procurement, storage and delivery of drugs during the COVID-19 pandemic at the Rawamerta District Health Center in accordance with Minister of Health Regulation No. 74 of 2016 and the Ministry of Health 2020 concerning Junkis for Public health center services during the covid-

19 pandemic. The management of pharmaceutical preparations during the COVID-19 pandemic at the Rawamerta District Health Center was in accordance with the Minister of Health Regulation No. 74 of 2016 and the 2020 Ministry of Health regarding Junkis for Public health center services during the COVID-19 pandemic. There are differences in the management of pharmaceutical preparations during the COVID-19 pandemic at Public health center that have pharmacists and those who do not (Amanda et al., 2020).

## Methods

This research is a qualitative research with a phenomenological approach for the analysis of the management of medical consumables (BMHP) during the COVID-19 pandemic at the pharmaceutical installation of the Baubau City Health Office. The key informants here are the Head of the Baubau City Health Office, the Head of the Health Service Division, the Head of the Pharmaceutical & PKRT Section, the Head of the Pharmacy Installation and the Procurement Officer of the Baubau City Health Office. Meanwhile, additional informants are the Head of the Planning & Data Section and the Pharmacy Installation staff found in the research area who are suspected of being able to provide information about the problem being researched. Informants were selected by purposive sampling. Data collection techniques used in this study were in-depth interview techniques, observation techniques and documentation techniques. Researchers used data analysis techniques in 3 (three) stages, namely data reduction, data presentation and conclusion drawing. To obtain a high level of truth when approached from various points of view, the researcher uses triangulation, the triangulation carried out is triangulation of data sources, triangulation of theories, and triangulation of methods.

## Results and Discussion

Informants in this study are informants who are selected as informants who can provide information according to research, namely the key informants are the Baubau City Health Office, Head of Health Services, Head of Pharmaceutical & PKRT Section, Head of Pharmacy Installation and Procurement Officer of Baubau City Health Office. Meanwhile, additional informants are Head of Planning & Data Section and Pharmacy Installation



staff.

## Planning

"For the BMHP planning stage, we made the same as drug planning by calculating the remaining stock at the end of the current year, adding 6 months for the lead time, the same as in the years before the pandemic. Basically BMHP planning is the same as drug planning by following the rules issued by the Ministry of Health. During the pandemic we need a lot of BMHP, it can even be more than 2 times what was needed before there was a pandemic, so this BMHP planning must be really well planned because if you plan it wrong it will be fatal and there will definitely be out of stock for some BMHP items that are really needed during the pandemic."

(SP, 48 Years)

In contrast to the results of interviews conducted by LK informants, the agency collects plans for each section and inputs them according to the budget ceiling. Here are the results of the interview:

"We in the planning section only finalize and coordinate the planning results from each section and input according to the budget ceiling that has been set, whether it is the APBD budget, DAK or other budget sources. So for the BMHP planning, we are not involved much, sir, only if there is a need for supporting data, we will help prepare it for the completeness of the BMHP planning, the rest for the technicalities comes from the pharmacy who directly handles the BMHP planning"

(LK, 40 years old)

Based on the results of interviews conducted by researchers that there is an Integrated Team formed by the Health Office in carrying out BMHP planning. Here are the results of the interview:

"So far there has been no Decree for the formation of an integrated team, because the planning for BMHP is directly handled by the technical field, in this case the pharmaceutical section and the pharmaceutical installation. Because those who know more about the stock conditions and needs of each health center related to BMHP through reports on their use are collected at the pharmacy installation"

(BC, 46 Years)

The results of research conducted by researchers that the BMHP planning process and method carried out during the covid-19 pandemic are

planned to be almost the same as drug planning procedures by looking at the use of the previous year, following the results of the interview:

"Eee... the process is the same as the previous year, sir, where the planning for BMHP during the pandemic is still looking at the use of the previous 1 year where the stock of BMHP that came out or was used in the year before the pandemic was added to a maximum of 20% buffer using the consumption method..."

(WH, 44 Years)

Based on the results of interviews conducted by researchers that the information obtained is almost the same as the information obtained from ZA which says that planning is made based on usage for a year. Here are the results of the interview:

"Yes...we look at the usage reports and the Public health center request reports every month and then we group the BMHP items with the most usage and then we count them for 1 year by adding a lead time of 6 months. That's all for the planning process because we use the consumption method, but we haven't used the ABC analysis method yet..."

(ZA, 44 Years Old)

The results of research conducted by researchers that there are obstacles in the process of preparing the BMHP planning during the covid-19 pandemic, the informant said that there were constraints in terms of the budget used to meet the needs of the BMHP. Here are the results of the interview:

"Well... if the real problem lies in the budget provided or proportioned for BMHP needs where so far the budget only hopes for the Special Allocation Fund (DAK) from the APBD not to be distributed, later after the pandemic there will be a new APBD budget (budget refocusing) and community self-help. Then there are still miscalculations in planning BMHP items, as well as a lack of information regarding the sources of BMHP providers and the lack of human resources. Still using or copying the previous year's plan without considering the high demand factor..."

(BC, 46 Years)

Based on the results of these interviews, it is different from the results of the interviews that it was found that the obstacles obtained from the information/distributors who supply the BMHP needs. Here are the results of the interview:

"Yes... usually we have problems with information on distributors/providers who can supply BMHP needs related to type, quantity and price. We are

also constrained by the lack of qualified human resources in planning needs related to BMHP even if there are human resources that have a very large burden or portion of work. And the current human resources are mostly new people or moving employees."

(HN, 42 Years)

Based on the results of interviews conducted by researchers, information was obtained that was different from previous informants that the obstacles obtained were from human resources, the delay in collecting reports. Here are the results of the interview:

"Ee, if I am still lacking in human resources who can handle planning, it is still often late in collecting usage reports from the Public health center so that in doing stock taking there are always errors..."

(ZA, 44 Years Old)

Based on the results of the study, it was found that the planning had not been carried out in accordance with health supply management standards, in which an integrated planning team had not yet been formed, then the human resources were still lacking in knowledge about health supply planning, the delay in collecting data from the responsible officer.

### Budgeting

"For budgeting, usually, the central government has determined the amount of budget allocated for BMHP, medicines, medical devices, health buildings and health infrastructure. We in the planning section prepare the supporting data and inform the technical sector to make a proposal/plan for the needs of both BMHP, drugs and medical devices in accordance with the budget portion that has been determined from the center. So, everyone involved in the automatic budget is responsible for..."

(LK, 40 years old)

Based on the interview results obtained previously, it is different from the information obtained from the SP informant, that the person in charge is the head of the health office along with the results of the interview:

"Our DAK funds are usually given together with medicines, always when the BMHP is separate, how much is for medicines and how much is for BMHP. The responsibility is usually the head of the department directly because there is a report that we make related to the realization of the budget, so

it is still under his supervision. We only have the pharmacy division as the field implementer, so you could say we both have responsibilities..."

(SP, 48 Years)

The results of research conducted by researchers regarding the source of the budget for BMHP come from anywhere, whether the budget is sufficient in the management of BMHP, it is found that the budget obtained is not sufficient for all planning activities that are paid in installments by the center. Here are the results of the interview:

"From DAK funds, it's normal for BMHP and medicines. Well... just make a BMHP plan so that it can meet the budget that has been provided... it's still very lacking, especially during this pandemic, friends of health workers at the health center if to provide health services to patients, you have to need extra BMHP so they don't get infected too..."

(HN, 42 Years)

The interview results obtained are almost the same as the interview results obtained by the WH who said that the budget obtained was not sufficient. Here are the results of the interview:

"The central budget, if I'm not mistaken, DAK is not enough... not enough because the need for BMHP during this pandemic is very large while we are allocated a budget that is just right... the planning made must be doubled from the previous calculation, because of that the usage also increased so the budget must be more than before because in anticipation we don't have a shortage or empty stock at the pharmacy installation. Because if the stock is empty, what budget do you want to use to hold it again while the DAK funds are given once a year, it's different from regional hospitals that have their own budgets..."

(WH, 44 Years)

The results of research conducted by researchers that the obstacles found in the process of preparing the BMHP budget. The information obtained is that the constraints found are the budget, especially the emergence of covid-19, and the demand for BMHP at the Public health center is increasing. Here are the results of the interview:

"From us, the budget constraint is still lacking, especially during the current pandemic, the need for BMHP at the Public health center has increased more than before, so we think the funds are too little because we can't fulfill our needs if the funds are too small, so stay We can only deal with the needs of BMHP, which in our opinion are priorities for service needs at health centers with the existing budget. That's if, sir, it's just a matter of

communication between employees, sir..."

(SP, 48 Years)

The interview results were different from the interview results obtained from SM informants, who said that they were constrained in proposing needs and supporting data from the technical field. Here are the results of the interview:

"Yes... usually we are constrained by requests for proposals for needs or RAB and supporting data from the technical field which is always late in collecting, approval from regional leaders which is sometimes slow to process, copying the previous year's budget planning without conducting a field price survey at this time. So if that's the case, I usually direct the planning section to immediately give a deadline to the technical field so that they can do it quickly. Because this is very influential in the implementation of activities in the field, it must really be calculated carefully and don't just make suggestions..."

(BC, 46 Years)

Based on the results of interviews, it was found that the budget obtained or available was insufficient for the provision of BMHP, accompanied by an increasing number of COVID-19 cases, thereby increasing the need for BMHP, but the budget obtained did not experience a significant increase. In this case, the head of the installation and the head of the health office pay more attention to needs, are more communicative so that there is no shortage or vacancy of BMHP stock due to the lack of available budget.

## Procurement

"We leave the procurement process to the procurement official appointed by the Head of the Health Service, so we just need to coordinate our BMHP data with the procurement official. For the process of selecting the provider, it is up to the procurement official to regulate it, but if there is information on the provider that we know of, we will also convey it as material for consideration by the procurement official in selecting the provider/distributor of the BMHP."

(HN, 42 Years)

The results of the interview are almost the same as those obtained from the SP informant, that the official is responsible for this. Here are the results of the interview:

"Oh, that's what all of our procurement officials handle here is only limited to planning needs because we don't have a certificate for the

procurement of government goods and services.... To be more clear, try asking the procurement official, at least we are only limited to coordinating with him about the needs if something doesn't work. understood by the procurement official..."

(SP, 48 Years)

The results of interviews conducted by researchers related to whether there was a team formed for the BMHP procurement process, it was found that there was a team formed for the BMHP procurement process. Here are the results of the interview:

"Yes... for the pawnshop team there is a PPK, a Procurement Officer, and a technical team assisting PPK whose job is to check the administration of the handover of work, all of which are appointed and a Decree (SK) is made for the head of the Health Service..."

(BC, 46 Years)

Based on the results of interviews conducted by researchers, the results were almost the same as the WH informants who said that as follows:

"There is a team that was formed because the procurement official is the procurement official based on the results of the planning we made with the pharmaceutical section, so usually we just wait for the results of the process from the procurement official that we use as a reference in receiving the incoming BMHP, usually we are given a contract or e-purchasing order letter that has been approved by the provider..."

(WH, 44 Years)

The results of research conducted by researchers related to the involvement of the pharmaceutical section or the Pharmacy Installation or the Pharmacy Section in the BMHP procurement process. Based on the results of interviews obtained as follows:

"Well, it's mostly limited to communication because maybe there is a name that you don't understand or the volume and units of need that don't match..."

(WH, 44 Years)

The results of the interview explained that there was involvement between all fields even though it was only limited to communication between employees. Meanwhile, regarding whether there were obstacles encountered during the BMHP procurement process, it was found that the obstacles obtained were that sometimes the distributors were unable to fulfill procurement requests. Here are the results of the interview:

"The obstacle that often occurs in the procurement

of BMHP through the e-purchasing system is that sometimes the distributor is unable to fulfill our procurement requests and this usually occurs after the issuance of a contract between the provider/distributor and the health office. This problem is always beyond our prediction because when we coordinate it with the provider/distributor, the reason is that there is a shortage of raw materials from the factory or they can't get stock from the factory. This is what always happens so we are always out of stock or out of stock. While we cannot choose other procurement methods because information from providers/distributors is always at the end of the year..."

(SP, 48 Years)

Based on the results of the interviews above, it is different from the results of the interviews obtained from other informants who said that the existing constraints came from the budget which had a time limit for reporting. Here are the results of the interview:

"The main obstacle is because the budget used is DAK, where we know there is a time limit for reporting the use of DAK funds, namely at the end of July of the current year everything must be completed in the form of a contract, while we know that procurement with the e-Purchasing method is sometimes goods that have already been purchased. approved in the system may not necessarily be supplied and if it is not supplied automatically what is planned does not match the reality because the goods cannot be supplied and there will definitely be a shortage of the BMHP stock..."

(HD, 41 Years)

Based on the results of the study, it was found that procurement is the responsibility that has been appointed by the health department. So that the officer only provides data to the person in charge for BMHP needs, after that there is a contract or e-purchasing order that has been approved by the provider, besides that there are obstacles in the procurement process for example lack of communication between fellow employees in terms of names or volumes or even units of need. that is not appropriate and there is also a reporting time limit so that if it is past the time limit it will be difficult to get the DAK budget.

### Storage

"BMHP storage is carried out by separating the

incoming BMHP based on the expiration date, stored at room temperature so that the packaging or physical is not contaminated or avoided from flammable materials, arranged alphabetically, in FIFO (First In First Out) and FEFO (First Expired First Out), because the condition of the storage space is not too wide, there are some BMHP that are piled up, so the storage is not effective..."

(HN, 42 Years)

Based on the results of these interviews, it is almost the same as the results of interviews given from SP informants, the following are the results of the interviews:

"Yes... BMHP storage is stored in pharmacy installations or pharmacy warehouses with good circulation under the control of the Head of Pharmacy Installation, that is, if the storage is stored on shelves and arranged alphabetically, in FIFO (First In First Out) and FEFO (First Expired First Out), avoid direct sunlight and materials that can be contaminated so that the quality of the BMHP is guaranteed..."

(SP, 48 Years)

The results of research conducted by researchers related to whether there is a person in charge assigned to the storage of BMHP, based on this information obtained from informants that the head of the pharmacy is fully responsible, following the results of the interview:

"For the person in charge, it is usually the head of the pharmacy installation who gives special tasks or who is directly responsible for BMHP, drugs or medical devices. It's just up to his head to set the technicalities into it so that we too, if we need data to plan the previous year, it's not difficult to communicate regarding the availability of BMHP stock..."

(SP, 48 Years)

The results of the interviews above are different from the results of interviews conveyed by ZA informants as pharmacy installation staff that each employee is responsible for each BMHP storage, and sometimes they work together. Here are the results of the interview:

"There is someone who is responsible for each BMHP storage rack, but we usually work together to minimize errors, for example in calculating BMHP stock or stock taking and so on..."

(ZA, 44 Years Old)

Based on the results of interviews obtained related to what obstacles are often encountered in the BMHP storage process, the informant explained that the obstacles obtained were from insufficient

storage space or storage space to store the amount of BMHP. Here are the results of the interview:

"If there is a problem with the storage space/room which is not spacious enough to store large volumes of BMHP...that's all and we are still in the process of proposing to add the room if it is approved and depends on the leadership..."

(SP, 48 Years)

The results of interviews with researchers related to how the process of distributing BMHP is carried out by the pharmacy installation which is in the storage variable section, the informant said that it was carried out at the beginning of every month along with the distribution of drugs. Here are the results of the interview:

"Yes... the activities for distributing BMHP to the Public health center in the work area of the Baubau City Health Office are carried out at the beginning of every month for the needs of each month ahead. Usually we do it together with the distribution of drugs. So we will not do distribution to the Public health center if the Public health center has not collected the usage reports and monthly demand reports. Usually we add 10% to the buffer for every request if our stock is sufficient..."

(WH, 44 Years)

Based on the results of interviews related to BMHP storage, it was found that BMHP storage was separated between incoming goods based on the expiration date, stored at room temperature so as not to be contaminated, kept away from flammable materials, storage space was not wide, so there were some BMHP items that were not effectively stored. The special responsibility is the head of the pharmacy installation, while the usual obstacles are from ineffective storage space, while planning the distribution of BMHP is planned at the beginning of every month and there is no distribution to the Public health center if the Public health center does not provide data or monthly request reports.

## Distribution

"Yes, the distribution of BMHP is carried out together with drugs because the report is one with the drug report...the name is LPLPO. It includes a report on the use and demand for drugs and also the BMHP, it is signed directly by the head of the Public health center and gets approval from the head of the health department. Later, after being approved by us, they will be pushed into the technical field for the next process..."

(BC, 46 Years)

The results of research conducted by related researchers in the BMHP distribution process, are all human resources in the pharmaceutical installation involved and responsible, based on this the informant explained that due to the lack of human resources, all employees at the pharmacy installation were involved in distributing BMHP and also drugs. -medicine. Here are the results of the interview:

"If the distribution process is usually only friends of the installation who are directly involved on the orders of the head of the Pharmacy Installation...it's an internal installation that regulates normally, just because human resources are still lacking so they are usually involved in all that..."

(SP, 48 Years)

Based on the results of the interview, it is almost the same as the results of the ZA interview, here are the results of the interview:

"Everyone is involved when we are in the installation and usually direct orders from the head of installation include the division of the job desk, for the frequency/distribution schedule, the head of installation is the one who arranges for the installation head, so because it's already scheduled, we just follow the leader's orders..."

(ZA, 44 Years Old)

The results obtained are related to whether there are transportation facilities used in the distribution process that are quite supportive and is there a budget given for the distribution of BMHP. Here are the results of the interview:

"There is 1 unit of transportation for the pharmacy installation, but there is not enough time to distribute BMHP with 1 operational vehicle because the location of the Public health center is spread out and its geographical location is far, we get the allocation for the distribution budget from the APBD..." (SP, 48 Years)

Based on the results of the interview, it is almost the same as the results of the interview with ZA, the following are the results of the interview:

"There is only one vehicle that we usually use for distribution, so sometimes in a day we can only reach 3 or 4 Public health center, because our working time is not enough and the distance between each Public health center is far. For our distribution budget every year we come from the APBD, therefore we always have a distribution schedule and personnel who will be on duty..."

(ZA, 44 Years Old)

The results of the research related to whether there were obstacles encountered in the BMHP distribution process, based on this it was found that there were no obstacles because they were directly communicated with the manager. Here are the results of the interview:

"During the distribution process there were no significant obstacles encountered in the field because communication was always carried out with the manager of the health center before distribution was carried out..."

(SP, 48 Years)

Based on the results carried out by researchers related to the distribution of BMHP, it was found that the distribution was carried out simultaneously with medicines and obtained approval from the head of the Public health center and the head of the health office, while for transportation there was 1 unit of box car so it was still less effective to use because of the geographical distance between the health centers. with others but the budget obtained to meet the distribution needs is obtained from the APBD budget. Due to the smooth distribution process and good communication between fellow employees, there were no problems in terms of distribution.

### Planning

Planning is one of the most important functions in management, because planning will determine other management functions, especially decision making. The planning function is the basic foundation of the overall management function. Without planning, the implementation of activities will not run well. Thus planning is a guideline or guidance on the process of activities to achieve goals effectively and efficiently.

Based on the results of interviews with researchers at the pharmaceutical installation of the Baubau City Health Office that the planning process is carried out simultaneously based on the regular DAK budget allocation for health that has been given from the central government by following the guidelines for Technical Instructions (Juknis) that have been issued by the Ministry of Health. Where the scope of the regular DAK in the health sector includes the sub-sector of strengthening the reduction in maternal and infant mortality; sub-sector of strengthening the acceleration of stunting reduction; disease control sub-sector; health system strengthening sub-sector; and the pharmaceutical sub-sector. It is for this

pharmaceutical sub-sector that activities are directed at providing medicines and medical consumables (BMHP).

The BMHP planning process at the Pharmaceutical Installation of the Health Office of Baubau City which has been carried out so far has not been in accordance with the basic principles of BMHP management, because there is no Integrated Team established by the Head of the Health Office although the BMHP formulary of the Health Office already exists based on a proposal from the Public health center (bottom up) using consumption method but there is no use of a system or ABC method, there is no calculating the maximum stock, minimum stock, and lead time so that it often causes BMHP vacancies and the availability of BMHP cannot be fulfilled properly.

In addition, the limited budget for the procurement of BMHP greatly affects the availability of BMHP at the pharmacy installation of the Health Office which of course has an impact on the vacancy of BMHP supplies so that basic health services do not run effectively and efficiently.

Based on research results (Triana, 2013) regarding the evaluation of drug planning for basic health services at the Pharmacy Warehouse, Gunung Mas Regency, Central Kalimantan Province concluded that adherence to drug planning guidelines was still low, it was proven that there were several planning steps that were not carried out by officers, this was due to a lack of understanding of the planning steps, the absence of SOPs, excessive workloads and the lack of regular supervision from superiors on the implementation of drug planning. The problem faced in planning BMHP at the pharmacy installation of the health office is that the plan only uses the consumption method by looking at the use of BMHP in the previous year, therefore there are BMHPs that are empty and there are BMHPs that are over stocked. In (Dirjend Bina Kefarmasian dan Alat Kesehatan, 2010) It has been mentioned that BMHP planning looks at the consumption and epidemiology methods, because by using these two methods it is possible to calculate the number of visits and types of diseases served in previous years.

### Budgeting

Budget sources are one of the inputs that support the implementation of a process. The process will run as planned if it is fully supported in terms of budget. Likewise, the activities of providing BMHP



in the pharmaceutical installation of the Baubau City Health Office will run well if supported by adequate funding.

From the results of in-depth interviews conducted by researchers to informants, it is known that the budget for these activities comes from DAK funds for the health sector which is divided into several activities. The pharmacy department consists of 2 activities, namely the provision of medicines and the provision of medical consumables (BMHP). For the budget available for BMHP provision activities in the last 3 years (2019, 2020 and 2021) an average of Rp. 902,019,038, - while the total budget for the activities of the Health Office was on average Rp. 74,023,333,333, so the percentage of the BMHP budget used was 1.22% of the total budget for the operational activities of the Health Office. This is still very low when compared to the standard of the Ministry of Health, Director General of Pharmaceutical and Medical Devices, that for expenditure on BMHP provision activities the percentage is around 30-50% of the total operational budget of the Baubau City Health Office.

The constraint faced in BMHP budgeting is the lack of available budget because the DAK budget source for the health sector has been determined by the central government for its allocation. With the current available budget, it is felt that it is not sufficient to meet the needs, especially during the current pandemic, the demand for BMHP is increasing, this causes the availability of BMHP is not in accordance with the plan. In an effort to increase the availability of BMHP, it is necessary to optimize the use of funds, the effectiveness of the use and control of supplies and distribution from the Regency/City Pharmacy Installation to the Health Service Unit.

According to (Suciati S, 2006) Pharmaceutical services are supporting services and at the same time the main revenue center. This is considering that almost 90% of health services at the Public health center use pharmaceutical supplies (drugs, BMHP, laboratory chemicals, medical devices and medical gases), and 50% of the Public health center' income comes from the management of pharmaceutical supplies including drugs and BMHP.

In doing budgeting, several things that must be considered are determining the needs of the available budget, unit prices according to market prices or prices listed in government e-catalogs, and forecasting inflation. Therefore, the available

budget will certainly affect the process of planning and procurement of BMHP activities. This is of course with an adequate budget, the BMHP needs will be met properly, on the contrary if the available budget for BMHP procurement is limited then the availability of BMHP or BMHP vacancies will occur and will have an impact on basic health services not running well. This statement is in accordance with the guidelines for pharmaceutical supplies made by (Dirjend Bina Kefarmasian dan Alat Kesehatan, 2010) which states that one of the most vital supporting components in the management of pharmaceutical supplies is the availability of an adequate and appropriate budget for the supply of pharmaceutical supplies at the Pharmacy Installation. In addition, due to ineffective BMHP planning, it has an impact on determining the budget used for BMHP provision activities.

### Procurement

Procurement is the process of getting supplies of goods under contract or direct purchase to meet business needs. The purpose of procurement is to obtain pharmaceutical supplies at reasonable prices, good quality, guaranteed and timely delivery of goods, processes that run smoothly and do not require excessive energy and time (Depkes RI, 2008).

The procurement of BMHP is carried out by the Provincial and Regency/City Health Offices in accordance with the provisions in the Implementation of the Procurement of Goods/Services for Government Agencies and the Implementation of the State Revenue and Expenditure Budget (Dirjend Bina Kefarmasian dan Alat Kesehatan, 2010).

Procurement of BMHP at the Pharmacy Installation of the Health Office is carried out to obtain the type and quantity of BMHP with high quality, ensuring the availability of BMHP quickly and on time. Therefore, the procurement of BMHP must pay attention and consider that the BMHP held is in accordance with the type and amount of BMHP that has been planned.

From the results of interviews with informants, it was found that the implementation of BMHP procurement at the Baubau City Health Office Pharmacy Installation with an E-Purchasing system based on an electronic catalog (e-catalogue).

However, there are still types of BMHP that the

provider/distributor cannot fulfill on the grounds that the type of BMHP is out of stock so that the planned BMHP needs cannot be met. In this procurement process, it is carried out by a Procurement Officer who is appointed through a Decree of the Head of the Health Service who acts as a Budget User (PA) as well as PPK (Contract Signing Officer) in accordance with the applicable rules for the procurement of government goods/services. Furthermore, the Procurement Officer will carry out the procurement process through planning data that has been made by the pharmacy section or pharmacy installation by making packages on the e-purchasing system to purchase BMHP. The e-purchasing system for BMHP that is included in the e-catalog list is carried out to make it easier for Procurement Officers to make purchases, because the goods or BMHP to be purchased in the e-catalog already contain a list, type, and specifications including the price of the BMHP.

Based on (Permenkes RI, 2010) stated that the procurement of drugs and BMHP is a process for the provision of drugs and BMHP needed in the Health Service Unit. The procurement of drugs and BMHP that is carried out must comply with the provisions in the Implementation of the Procurement of Goods and Services for Government Agencies and the Implementation of the State Revenue and Expenditure Budget. In research (Roi Y. A. Sumangkut, 2014) mentions the same thing, namely the procurement of an e-purchasing system is carried out directly to the supplier of goods, procurement like this is to make it easier for officers to place an order for goods to the supplier of goods.

Based on the results and discussion above that the procurement process is in accordance with existing standards, but the availability of BMHP has not been met in accordance with the needs in the Pharmacy Installation, this is because it is influenced by ineffective planning, the long administration process for payment of providers, the geographical location of the city of Baubau in the islands and availability BMHP budget which is still lacking.

The Pharmacy Installation of the Baubau City Health Office must be more careful and thorough in the effort to plan for BMHP needs so that the Special Allocation Fund (DAK) for the health sector provided by the government can meet the provision of BMHP for the needs of Public health center in its area.

## Storage

Storage is an activity of storing and maintaining and placing pharmaceutical supplies received in a place that is considered safe from theft and physical disturbances that can damage the quality of drugs and BMHP. The purpose of storage is to maintain the quality of pharmaceutical supplies, avoid irresponsible use, maintain availability, and facilitate search and control (Dirjend Bina Kefarmasian dan Alat Kesehatan, 2010).

Based on the results of interviews with informants and field surveys, it is known that BMHP storage activities at the Pharmacy Installation of the Baubau City Health Office use the FIFO (First In First Out) and FEFO (First Expired First Out) systems. This means that in preparation, the BMHP that has just arrived at the warehouse must be issued first and the BMHP which is near the expiration date must be issued first. The BMHP is arranged alphabetically (alphabetical). BMHP that is damaged or expired is separated from other BMHP that is still in good condition and stored in a special place at the Pharmacy Installation. However, the storage facility for the Pharmacy Installation of the Health Office of the City of Baubau is said to be inadequate to store all existing medical supplies in the pharmaceutical installation, where based on field data, the storage area is only 165 m<sup>2</sup>. According to the informant, the area of this installation is not sufficient for the storage of drugs, BMHP and medical devices.

The results of this study are also supported by the results of research (Sheina, B., Umam, M.R., 2010) which states that the storage and preparation of drugs in the Pharmacy Installation of PKU Muhammadiyah Hospital Yogyakarta Unit I uses the FIFO (First In First Out) and FEFO (First Expired First Out) methods and alphabetically, this method is used to make it easier for officers to administer medicines and maintain the quality of medicines in the Pharmacy Installation of PKU Muhammadiyah Hospital Yogyakarta Unit I.

According to research results (Palupiningtiyas, 2014) which states that the inadequate area of the warehouse will certainly hamper the officers in carrying out the task of storing drugs in the pharmacy warehouse.

The results of interviews between researchers and informants also said that storage activities played an important role in the management of BMHP. This activity can run well if it is supported by adequate storage facilities. Inadequate facilities

cause the arrangement of BMHP in storage to be irregular and not comply with BMHP storage rules, so that it can cause BMHP to be damaged or expired in storage. In storage activities, goods that have been received and have been checked by officers are then stored in the pharmacy installation warehouse. The preparation of BMHP which is carried out on BMHP storage shelves in the warehouse of the Baubau City Health Office pharmacy installation is then separated according to the alphabet, shape, and required conditions such as storage temperature, light and humidity and separation from explosive/combustible materials so that the quality and quality is guaranteed. According to the Director General of Pharmaceutical Development, the storage process must use the FIFO (First In First Out) and FEFO (First Expired First Out) systems, alphabetically, based on shape and given a code or name to facilitate the search and control of BMHP.

From the results of research conducted by researchers with in-depth observations and interviews, it can be concluded that the storage process for Consumable Medical Materials (BMHP) at the Pharmacy Installation of the Baubau City Health Office has not fully met the standards based on the Ministry of Health guidelines because there is no Standard Operating Procedure (SOP) for proper storage. made by the Pharmacy Installation itself and listed on the BMHP storage area, the building area for storage is not enough to accommodate BMHP, medicines including medical devices, and there is still a lack of Human Resources (HR) assigned to the Pharmacy Installation of the Baubau City Health Office. This is also stated in the guidelines for the management of pharmaceutical preparations and health supplies made by the Director General of Pharmaceutical and Medical Devices (2010) which has been regulated on how or how to store medicines, BMHP and medical devices properly and correctly. The aim is to maintain the quality of drugs, BMHP and medical devices and to avoid losses due to errors in storage. In addition, the fulfillment of human resources, facilities and infrastructure also has an important influence in the BMHP storage process.

### **Distribution**

BMHP distribution activities are a series of activities in the context of issuing BMHP and delivering quality BMHP from pharmaceutical

installations in meeting requests for needs or requests for health service units with the aim of implementing BMHP distributions evenly and regularly and can be obtained when needed, ensuring quality, validity and accuracy, rationality and efficiency of its use (Permenkes RI Nomor 58, 2014).

A good way of distributing health supplies is a way of distributing health supplies such as BMHP which aims to ensure quality along the distribution/distribution channels according to the requirements and intended use. The principles of good health supply distribution methods apply to aspects of procurement, storage, distribution including the return of health supplies in the distribution chain (Dirjend Bina Kefarmasian dan Alat Kesehatan, 2010).

According to (Permenkes RI No.72, 2016) stated that the distribution of drugs and health supplies is a process for the provision of drugs and health supplies needed in the Health Service Unit. The distribution system is carried out on a quarterly basis by the health office for Public health center in its working area and to speed up the process of getting medicines and medical supplies to the Public health center, a delivery schedule must be made. Medicines and medical supplies to be distributed must be accompanied by delivery or delivery documents. Before packing the medicines and medical supplies to be sent, it is necessary to check the quality, dosage, contents of the package, as well as the completeness and correctness of the shipping documents. And every dispensing of drugs and medical supplies from the warehouse of the district pharmacy installation must be recorded on the stock card and inventory master card as well as the diary of the dispensing of drugs and health supplies.

Based on the results of interviews between researchers and informants, it was explained that the distribution process of Consumable Medical Materials (BMHP) at the Pharmacy Installation of the Baubau City Health Office was carried out based on the planned BMHP needs in one year by considering the amount of unused BMHP and the amount of BMHP that had been used as stated in the report. Requests and Usage Reports that are collected at the beginning of the current month that have been approved by the head of the Public health center. BMHP distribution will be carried out if the required BMHP proposal has been approved by the Head of the Baubau City Health Office. In the case of approval, the proposed needs

are submitted directly by the Public health center to the Baubau City Health Office in the form of a report based on the planning for drug needs and BMHP at the previous Public health center. Then the technical field will review the report, the results of the review of the Public health center report will be re-evaluated to determine the amount and type of BMHP that will be distributed to the Public health center by considering the remaining BMHP usage that is still in the Public health center.

From the results of the research above, it can be concluded that the distribution management of BMHP at the Pharmacy Installation of the Health Office of Baubau City has been running well. The technical problem in the field is that the BMHP examination is not carried out carefully when the BMHP is handed over to the pharmacy management officer of the Public health center. This has the potential to cause problems such as an inappropriate number of BMHP, physically damaged BMHP and approaching expiration date. Therefore, before distributing the BMHP, the Pharmacy Installation officers had to do a cross-check between the physical and the SBBK with the aim of minimizing the errors of incompatibility between the physical and the SBBK. The rest of the BMHP distribution process has been carried out in accordance with the operational standard guidelines issued by the Ministry of Health.

## Conclusion

Planning for BMHP needs is basically in accordance with the basic principles of drug and health supply management, but it is not optimal. Budgeting for BMHP supplies comes from the Special Allocation Fund (DAK) for the health sector and is still very less than the standard guidelines for the management of pharmaceutical preparations and health supplies, resulting in the availability of BMHP from planning cannot be fulfilled. Procurement of BMHP at Pharmaceutical Installations is in accordance with Presidential Regulation no. 16 of 2018 concerning the procurement of government goods and services using the E-Purchasing system. BMHP procurement has not gone well. The storage of BMHP in the Pharmacy Installation is not in accordance with the standards, namely not paying attention to the expiration date and the building area of the Pharmacy Installation is still very inadequate. The distribution of BMHP in pharmacy

installations is not optimal according to the standards of the ministry of health, such as the number and type of BMHP that are not in accordance with the demand for health centers because the stock of BMHP supplies in pharmacy installations is also not sufficient to meet the demand for health centers.

## Research Limitations

The limitations of this study include the subjectivity of the researcher. This research is very dependent on the researcher's interpretation of the implied meaning in the interview so that the tendency for bias still exists. Because this study focuses on the Management of Consumable Medical Materials (BMHP) in the Pharmacy Installation of the Health Office, so there are still some indicators that may still be very influential in the management of BMHP that are not examined in this study. Some informants only provide a general description without going into detail and it is difficult to determine the time of the interview because some informants are busy with other matters

## Statement of Ethics

Health Research Ethics Commission, Faculty of Public Health, Hasanuddin University on April 13, 2022 with the number: 4064/UN4.14.1/TP.01.02/2022.

## Conflict of Interest

The authors declare that there is no conflict of interest.

## Thank-you note

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