

## Analysis of E-Catalogue Drug Procurement with E-Purchasing Method in Papua Barat Province

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### ABSTRACT

**Background:** Management of pharmaceutical preparations including drugs to meet service needs starts from planning, procuring, requesting, receiving, storing, distributing, controlling, recording, reporting, filing, monitoring and evaluating. The process of procuring drugs uses *e-catalogue* using *e-purchasing* methods.

**The research objective:** To find out the realization of the procurement of *e-catalogue* medicine using *e-purchasing* in West Papua Province

**Research Methods:** Qualitative with the number of informants as many as 6 people conducted in October-November 2018 at the District Health Office. Teluk Wondama, Manokwari and the Arfak Mountains use interview guidelines and observations. Data is analyzed qualitatively.

**Results:** The input of *E-purchasing* HR procurement at the Teluk Wondama District and Manokwari District Health Offices was sufficient and in the Arfak Mountains District there was insufficient and no internet network. The budget is sufficient. Availability of facilities and infrastructure is sufficient to support the *E-purchasing* process of drug procurement. *e-purchasing* process based on drug procurement The needs planning process is based on the *e-catalogue* but still cannot avoid the drug vacuum. Distribution process or delivery of drugs based on the number, type and time of delivery, is in accordance with the contract made. There are obstacles in the form of contract changes (addendum) related to the delivery time. Output of drug availability in warehouse is not in accordance with predetermined indicators caused the drug emptiness is caused by the number of drugs that are not all realized, when drug delivery by

distributors, drug vacancies have occurred nationwide, and the absence of an information system that can warn the number of drugs entering the minimum stock, so that the order is not late.

**Keywords:** *e-Catalogue Drug Procurement With e-purchasing Method*

### 1. INTRODUCTION

The availability or fulfillment of medicines at the District Health Department Pharmacy Installation must be carried out to guarantee and improve the quality of health services in public health service units such as in Puskesmas or at Sub-Puskesmas and Pos Yandu or other health service units commonly called First Level Health Facilities (FKTP), so that there is a need for guarantees regarding the accessibility of drugs that are safe, efficacious, quality and affordable in terms of types and sufficient quantities.

Management of pharmaceutical preparations including drugs to meet service needs starts from planning, procuring, requesting, receiving, storing, distributing, controlling, recording, reporting, filing, monitoring and evaluating management. (Minister of Health Regulation Number 74 of 2016). Fulfillment of drug needs in the Pharmacy Installation District or City Health Office is carried out every year in accordance with the current year DIPA which can be carried out through electronic methods commonly called e-Purchasing by referring to electronic catalogs of drugs or commonly called e-Catalog drugs, as well

as other methods justified by the Act.

West Papua Province has 12 Regencies and 1 City characteristic of West Papua province which is different from several provinces in the central region or western regions of Indonesia, Sorong City and Manokwari Regency have been connected directly with other provinces with good air and sea transportation and internet network access. Some districts, if seen from the affordability of transportation and internet network technology support, are still limited, but for planning and procurement of government goods / services procurement must be through a system of procurement or e-procurement (Inpres Number 1 of 2015) including procurement of medicines at the Office Pharmacy Installation District Health.

The procurement of electronic goods and services with e-Purchasing and e-Catalog methods has been carried out since 2012, but until it is still considered unable to fulfill requests according to orders from the District Health Office or Pharmacy Installation, so that it can inhibit the service / availability of drugs in the type and amount of medicine in the first level health facility. Drug fulfillment through e-Purchasing through e-Catalog medicine is also greatly affected by the Drug Needs Plan which is inputted through the application of the drug catalog e-monitoring and evaluation by the pharmaceutical installation or pharmacy section of the District / City Health Office.

Apart from that, drug fulfillment through e-Purchasing can be influenced by time of online transactions conducted by pharmacy installations or health department pharmacy sections as customers for the pharmaceutical industry or pharmaceutical wholesalers appointed as distributors by the pharmaceutical industry to deliver drugs to the pharmacy department health installation .

Based on the initial survey we conducted through interviews with the person in charge of the pharmaceutical installation and / or pharmacy section of the

District Health Office, procurement carried out with the e-Purchasing method was not 100% fulfilled in accordance with the e-Purchasing carried out previously, the length of time needed from purchasing to with the drug received, sometimes the drug is accepted not in accordance with purchasing both in terms of number, type of drug, physical condition of the drug and short expiration so that to meet these shortcomings is done by other methods.

Based on the background above, the objectives to be achieved from this study were to analyze the procurement of e-Catalog drugs with the e-Purchasing method in the province of West Papua.

## **2. MATERIALS AND METHODS**

### **2.1 Type and Location of Research**

This type of research is a qualitative study by analyzing the procurement of drugs e-Catalog with e-Purchasing method.

### **2.2 Place and Time of Research**

This research was conducted in West Papua Province with the target of Pharmacy and Health Service Offices in Wondama Bay Regency by reason of representing coastal districts, Manokwari District Health Office representing urban areas and District Health Service of Arfak Mountains representing mountains. The time of the study was conducted from October to November 2018.

### **2.3. Research Informants**

Informants are people who can provide information about things needed in research. Research informants are those who have authority in drug logistics management in the pharmaceutical installations of each district. Sampling in this study is based on certain considerations or purposive sampling made by the researchers themselves based on the characteristics or nature of the population of pharmacists or other health workers at the Pharmacy Installation and the Pharmacy District Health Office. The informants in this study were:

1. Key informants (key informants), namely someone who fully and deeply knows about drug logistics management at the District

Health Office installation. The key informants in this study were 1 Head of the Pharmacy Section and also the Head of Pharmacy Installation in Teluk Wondama Regency, 1 Manokwari Regency Pharmacy Section Head, 1 Head of the Pharmacy Section and also the Head of the Regency Pharmacy Installation in the Arfak Mountains.

2. Supporting informants, namely people who know the logistical logistics of District Pharmacy, namely 1 person Head of Pharmacy Installation of Manokwari Regency, 1 person from Pharmacy Section of Teluk Wondama Regency and 1 person from Pharmacy Section of Manokwari Regency.

The criteria for informants are informants:

- a. Involved in drug procurement activities by e-Purchasing starting from the stage of preparation of drug plans to the receipt of drugs in the District Pharmacy Installation
- b. Able to communicate well.
- c. Located at the location of the study during the study.
- d. Willing to be an informant.

### 3. RESULTS

Based on research that has been carried out in three District Pharmacy Installations and Sections namely Teluk Wondama Regency, Manokwari Regency, Arfak Mountains Regency, data can be obtained about the factors that influence e-Catalog drug procurement with the e-Purchasing method in the three districts through in-depth interviews as follows.

**Table 1. Characteristics of Informants Age, Working Period, Position and Education**

No	Informant	Age	Work period (year )	Education	Position
1	Informan 1 (SR) *	38	10	Apoteker	Kasie Seksi Farmasi dan Kepala Instalasi Farmasi Kab Teluk Wondama
2	Informan 2 (MS)*	40	14	Apoteker	Kasie Seksi Farmasi Kab Manokwari
3	Informan 3 (HN)	30	4	Apoteker	Staf Instalasi Farmasi Kabupaten Teluk Wondama
4	Informan 4 (AD)	35	12	Asisten Apoteker	Staf Seksi Farmasi Kabupaten Manokwari
5	Informan 5 (ZA)	50	19	Asisten Apoteker	Kepala Instalasi Farmasi Kabupaten Manokwari
6	Informan 6 (YB)*	35	9	Apoteker	Kepala Seksi dan Kepala Instalasi Farmasi Kabupaten Pegunungan Arfak

\* Key informants

Based on table 4.4 above can be obtained information that the age of informants ranged from 30 years to 55 years. From all informants there were 1 informant whose job was Non ASN, out of 6 informants there were 6 people with pharmacy education background and of the 6 people 4 of them were Pharmacists. All key informants are Head of Pharmacy Section and educated Pharmacist.

Procurement of drugs carried out in Manokwari Regency, Teluk Wondama has used drug procurement with E-Purchasing procedures based on E-Catalog. While in the Arva Mountains District, the E-Purchasing procedure has not been used due to the limitations of the internet network. This E-Purchasing Procurement was carried out in 2013 until now. E-Purchasing is the

procedure for purchasing goods / services through an electronic catalog system or E-Catalog. Policy for Procurement of drugs based on E-Catalog in E-Purchasing aims to improve effectiveness and efficiency in the procurement of drugs. There are several processes in the procurement of drugs in E-Purchasing, this procurement process is supported by input in its implementation. The following is the E-Purchasing input, process and output of drug procurement.

#### 1. Human Resources

Human resources are one of the inputs to procuring drugs in an E-Purchasing manner. The available human resources procured are explained by in-depth interviews and reviews of related documents Human resources assigned to procure pharmaceuticals. Based on the

results of in-depth interviews with several informants, it was found that the human resources available in the procurement team in Manokwari Regency, Wondama Bay were 4 people, namely two procurement officials, one APBDN procurement officer and the Regional Budget, and one Staff. These procurement officials have their respective duties, namely there are procurement officers for the public and procurement of pharmaceuticals. The number of Pharmacy procurement officers who are in charge of procuring drugs in an E-Purchasing consists of Pharmacy Procurement Officers namely Head of Pharmacy Installation, assisted by two officers namely one planning officer and procurement staff. This is based on interviews with the three informants, all three of whom stated that there were 3 HR:

"For the number of procurement officers in general, there are three people who are 2 people specifically for the APBN and APBD plus 1 staff and one person from the planning who often helps the mother when e-Purchasing is purchased, for the procurement of pharmacy I am only one also from procurement and staff "(SR, 38 years, October 24, 2018)

In general there are officials of the State Budget 2, procurement officials apbd 1, staff 1. Some of the procurement officials have served as one-person pharmacy procurement, but also often assisted by mothers of planning and procurement staff (MS, 40 years, 7 November 2018). For procurement for my e-Catalog or pharmacy that holds and co-workers who help and I also help the less. (HN, 30 years, 25 October 2018).

Procurement for e-Catalog medicine is not carried out and carried out by auction or direct procurement (YB, 35 years, 11 November 2018).

The task of procuring drugs based on e-Catalog in e-Purchasing is based on a review of documents regarding e-Cataloging purchases made by submitting proposals for procurement to the head of the pharmacy section approved by the Head of Service.

After being approved, the drug will be purchased e-Purchasing. This task is assisted by planning officers by helping prepare the drug needs planning that will be submitted, as well as staff who help prepare the data needed in the procurement of drugs in e-Purchasing.

Based on in-depth interviews conducted with informants it is known that the number of procurement officers in the Health Office is still lacking, moreover the procurement staff is only one for all procurement of either BMHP or drugs and for procurement officers also has multiple tasks besides procurement also responsible for drug planning, and receiving drugs. This is based on interviews with the three informants, the three of whom mentioned that the existing HR is still lacking:

"HR is right, if in my opinion we still lack people. Besides that not everyone can also enter here to become a procurement team because there must be a certificate from and the terms of LKPP. And not everyone in the Health Office has the certificate "(SR, 38 years, October 24, 2018). "Procurement officers at the pharmacy are still lacking, coupled with only having one staff whose job is to handle 3 other acting staff. in my opinion Where only one official can be staffed 3, it means that this staff handles 3 officials. Make the procurement of staff only one, for procurement in general and pharmacy, here I also work as a procurement officer, planning, and goods receiving officer "(MS, 40 years, 7 November 2018)

The number of officers involved in the E-purchasing procurement process was 2 people in Wondama Bay Regency and Manokwari Regency. Procurement officers involved in drug procurement by e-Purchasing have a pharmacy education background, such as planning and procurement officers are Pharmacists, operator officers are also Pharmacists in Teluk Wondama District while operators are Pharmacist Assistants. Based on the explanation above, it can be concluded that the Human Resources available in the

procurement of drugs by E-Purchasing, in the number of officers is still lacking but for the quality of procurement officers already have a pharmaceutical education background, namely a Pharmacist.

## 2. Policy

The results of in-depth interviews and document review conducted by the researchers indicate that the E-Purchasing drug procurement policy has been implemented since this regulation was issued, namely in 2013. This policy is used as a guideline in the procurement of drugs. The policy is in the form of Minister of Health Regulation No. 63 of 2014 concerning the procurement of drugs based on e-Catalog in e-Purchasing. In addition, procurement officers also refer to RI Presidential Regulation No. 4 of 2015 concerning the procurement of government goods / services. This is based on interviews with two informants, the two informants said that the procurement of drugs refers to existing government policies and guidelines: "For our policy, refer to the latest Perpres, namely Perpres No. 4 of 2015 and the E-Catalog policy itself, in addition to policies there must also be technical guidelines that come out together with the policy itself. We also implement procurement guidelines that have been socialized to us every year." (SR, 38 years, October 24, 2018)

"We have implemented this policy from the outset of this policy, there are several policies related to this procurement. the E-Catalogue policy is in itself, the Presidential Regulation concerning the procurement of goods and services." (MS,

40 years, 7 November 2018) Policies issued by the government are accompanied by technical instructions and procedures in assisting the Health Office operational activities. There are procedures for procurement of drugs, as well as procedures related to drug procurement, namely drug planning procedures and receipt of goods. The procedure has been documented in the form of a standard operating procedure book issued by the Health Office. Drug procurement and BMHP operational procedure standards at the Health Office:

- 1) The Puskesmas submits a proposal for procurement to the pharmaceutical section with the approval of the head of the department
- 2) The head of the pharmacy section has the right to approve the proposal for procurement of drugs and BMHP
- 3) If the proposal is approved, the pharmaceutical supplies coordinator coordinates with the procurement officials.
- 4) For direct purchase of the head of the Puskesmas, it can buy itself if there is a small drug vacuum.
- 5) For psychotropic, narcotics and precursor orders, they still use psychotropic / narcotics / precursor order letters, even though they have been ordered through e-Purchasing.
- 6) Coordinator of pharmaceutical supplies filing SP In addition to the operational standard procedures above, there are also several procedures and technical instructions and regulations related to e-Catalog procurement of drugs based on e-Catalog, namely:

**Table 2. Procedures related to the procurement of drugs based on E-Catalog in E-purchasing**

No	Procedure	Kinds
1	Operational standards for drug planning and BMHP procedures	Technical guidelines
2	Operational standards for drug planning and BMHP procedures	Technical guidelines
3	Operational standards for drug planning and BMHP procedures	Technical guidelines
4	Minister of Health Regulation Number 63 of 2014 concerning the procurement of drugs based on E-Catalogue	Government Regulation
5	Technical guidelines for procurement of drugs in E-purchasing	Technical guidelines
6	Presidential Regulation No. 4 of 2015 concerning the procurement of government goods and services	Government Regulation

In the first year of the issuance of drug procurement policies in e-Purchasing, namely in 2013, this policy included

guidance from the LKPP for health facilities as e-Catalog application users, this guidance was also included an explanation of e-

Purchasing technical guidelines for purchasing. Guidelines or technical guidelines issued by the LKPP in the form of a chart are felt easy to understand in addition to that also often held guidance from LKPP so that procurement officers more easily understand the procedures or technical guidelines provided. This is based on interviews conducted with two informants, both of whom stated that procedures and technical guidelines were easily understood:

"We at the time of the issuance of the regulations, we immediately started and from the LKPP side we also immediately provided training and technical guidance to us regarding the LKPP Procedure, so we can understand e-Catalog quickly because we got training, so we understand the procedure of lkpp. The procedure is also easy to understand because it is clear and gradual "(SR, 38 years, October 24, 2018)

"Existing procedures for purchasing drugs in e-Purchasing are easy to understand, moreover the instructions used are simple, so they are easier to understand and apply" (MS, 40 years, 7 November 2018). Based on the explanation above, it

can be concluded that the e-Purchasing policy of drug procurement has been understood by officers and there are several procedures and technical instructions in the Health Office, namely standard drug planning procedures and BMHP, operational standards for drug procurement procedures and BMHP, operational standards for drug procurement procedures and BMHP, technical instructions for purchasing drugs by e-Purchasing, Permenkes No. 58 concerning e-Catalog, Republic of Indonesia Presidential Regulation No. 4 of 2015 concerning the procurement of government goods and services.

### 3. Facilities and infrastructure

Facilities and infrastructure are also one of the inputs that support the smooth running of drug procurement activities at the Health Office. Data on facilities and infrastructure were obtained through in-depth interviews, observation and document review. The following are the results of a review of documents related to facilities and infrastructure related to e-Purchasing drug procurement in Wondama Bay District and Manokwari Regency:

**Table 3. Inventory list of goods in the procurement room of the Wondama Bay Health Office, Manokwari and Arfak Mountains**

No	Good name	Regeency of Teluk Wondama	Regeency of Manokwari	Regeency of Pegunungan Arfak
1.	Computer	1	1	1
2.	Scanner	1	1	-
3.	Printer	4	3	1
4.	Komputer LCD 18"	1	1	-
5	Laptop	3	2	1
6	Working table	1	1	1
7	AC 1 PK	1	1	-
8	Working table ½ biro	1	1	-
9	unitrend table	1	1	-
10	Internet	Not stabil	Ada	-
11	Electricity	Exist	exist	Limited

Based on the table above there are several facilities, namely computers, scanners, printers, LCD computers, laptops, various kinds of tables, and air conditioners. The results of this document review are also supported by observations what was done was that the facilities in the document were already in place, besides that also in the procurement room there were also chairs and an unwritten internet network in the inventory of the procurement room.

Based on the results of in-depth interviews conducted with the three informants, it is known that the facilities and infrastructure in the Manokwari Health Office are sufficient to carry out the e-Purchasing process, while the Teluk Wondama Regency is an unstable network which disrupts the e-Purchasing process and for Arfak Mountains Regency facilities and infrastructure to conduct e-Purchasing there are shortcomings, especially for electricity

that is not stable and frequent power outages and internet networks that do not yet exist so that it becomes an obstacle in the e-Purchasing process, procurement of drugs is carried out offline or direct procurement and procurement . "The facilities and infrastructure here are sufficient and for procurement based on e-Catalog also does not require too much equipment, the most important thing is that we must have a computer / laptop, fast internet network, stationery, and office space like a desk and cupboard. All of them are enough to help the procurement process "(SR, 38 years, October 24, 2018)

Facilities and infrastructure for e-Catalog purchase are the most, laptops, internet, office equipment, rooms, already quite enough for facilities and infrastructure so there are no constraints lacking the tools we have, besides, the internet is also always stable. The problem with e-Catalog is that it is often difficult to access it last week from Thursday can not be accessed. So that's the problem in the e-Catalog if the ingredients are good (MS, 40 years, 7 November 2018).

"For e-Catalog procurement facilities and infrastructure there are not too many. We need computers, tables, chairs, stationery, telephones and rooms to work, and stable internet access. Everything has been fulfilled so that the process runs smoothly "(HN, 30 years, 25 October 2018).

Based on the explanation above, it can be concluded that the Health Office has sufficient facilities and infrastructure to support the process of procurement of drugs by e-Purchasing. The following means inside e-Purchasing medicines in the form of tables, chairs, cabinets, books / shelves, computers / typewriters, office stationery, telephones and stable internet access. In addition, it also features infrastructure in the form of a procurement official's room.

#### **4. Process of Drug Requirement Planning**

The process of planning drug needs carried out by the Health Office is related to the procurement of medicines in e-Purchasing with consumption patterns. Drug

procurement planning data is obtained through in-depth interviews and document review. The planning process for procuring medicines at the Health Office has several stages, along with the stages: 1) First the drug planning department is used to use consumption patterns to see drug use in the last 1 (one) year, so that any drug that is needed is needed for the Health Service by considering the reserve stock for the drug. This is based on interviews conducted with the two informants, both of whom stated that planning for the procurement of drugs uses consumption patterns:

"The planning process will vary, but we are here using consumption patterns we see drug use in the last year, which is the one with the least amount of medication so we can determine how many drugs we have to buy. Besides that we also pay attention to the buffer of 20% (SR, 38 years, October 24, 2018) "

We make plans based on consumption methods, so we see usage for three years "(MS, 40 years, 7 November 2018)"

2) After you know what drugs you use are many and already calculate how much to buy, then the next thing to do is look at electronic catalogs or E-Catalogs on the website, by looking at e-Catalog officers can sort out which drugs enter e-Catalog with e-Purchasing procedures and those that don't enter e-Catalog. Medicines that are not included in e-Catalog are made outside of e-Catalog. This is based on interviews with two informants, both of whom stated that the buying process was divided into two: "This plan was made for procurement in general, after we saw the usage later, then we will separate which one can we buy using e-Catalog and non-e-Catalog by looking at the E-Catalog website (SR, 38 years, October 24, 2018)" "So we see e-Catalog first. We print everything first. Because if we compile it directly e-catalogue and non e-Catalog (MS, 40 years, 7 November 2018) "

3) After that the order process is carried out by submitting the purchase of medicine to

the head of the pharmaceutical installation who will be forwarded to the head of the supporting field with the approval of the head of the medical support section. This is based on the results of interviews with two informants, both of whom stated that the order was made with the agreement of several parties: "Before making an order, it will be submitted first, starting from planning to the head of the pharmacy section and continuing to the Head of SDK for approval" (SR, 38 years, 24 October 2018)

"We will make an order if the submission that we submit has been approved by the head of the pharmaceutical installation, the supporting department and the medical section head. "(MS, 40 years, 7 November 2018). The explanation above is also supported by the results of a review of the operational standard documents for drug needs planning procedures and BMHP, which contains general planning processes, which are carried out by the warehouse coordinator who makes compilation of drug use and BMHP, using drug data and reports from BMHP. warehouse, after submitting a proposal for procurement when inventory is running low, after it is submitted, the head of the pharmacy section will sort out the types of procurement and plan drug needs for each type of procurement and finally the head of the pharmacy section and support SDK Head with approval from the head of the Health Office Based on the explanation above it can be concluded that the needs planning process starts from the supplies coordinator making a compilation of uses with the last consumption method after being submitted to the head of the pharmaceutical installation, it will be determined to the type of procurement based on the planning needs made. So that it can separate purchases with e-Catalog and non-e-Catalog.

### **5. Ordering Medication**

The drug ordering process is divided into two, namely ordering using e-Purchasing procedures based on e-Catalog and ordering using non-e-Purchasing or

non-E-Catalog procedures. Ordering drugs using the e-Purchasing procedure is the main procedure that is established but there are a number of conditions that cause procurement officers to make purchases outside of e-Catalog, namely:

- 1) Drug items are not available on the e-Catalog portal
- 2) Not getting approval from drug provider e-Catalog
- 3) Long response from the drug provider
- 4) As well as late delivery from e-Catalog drug providers

This is based on interviews conducted with three informants, all three of which stated that the purchase of drugs can be done outside of e-Catalog if the officers find several obstacles:

"Purchases using the e-Catalog provide convenience for us, but not all the drugs we want to buy are in E-catalogue so we buy them outside the E-Catalog we buy outside the E-Catalog and also choose the cheapest price and if the price can be the same as the drug in e-Catalog. In addition, sometimes there are also obstacles from the length of the agreement, drug delivery, sometimes also not approved by the provider, while the needs in the warehouse must be fulfilled immediately; we are forced to go outside E-catalogue "(MS, 40 years, 7 November 2018)

"This year the e-Catalog drug delivery is often too late so we have to buy it outside the e-Catalog so that our warehouse can be fulfilled, besides we also buy it outside the E-Catalog because not all drugs are in EE-Catalog" (ZA, 40 years, 14 November 2018). "We make purchases outside of e-Catalog if the drug we want to buy is not in e-Catalog but also see our needs if we have ordered the drug in e-Catalog but not sent while the drug is gone or empty we make purchases outside e - Catalogue to cover the availability of drugs in the warehouse "(SR, 38 years, October 24, 2018)

The process of ordering drugs outside the e-Purchasing method is carried out through a public auction conducted by



procurement officers by sorting the price of drugs that are cheap and close to the price of e-Catalog. Procurement officers will overtake drug items that have prices similar to e-Catalog by looking at the quality and expiration time of the drug. The auction process is carried out by procurement officials by looking at and searching for drug information in drug companies, procurement officers can find information through the internet, via telephone, or distributors who often come to offer their products. The main obstacle in this auction is price, procurement officers look for prices that are close to e-Catalog or the same as e-Catalog prices but not many companies can afford it. This is based on the results of interviews with informants, informants said that buying outside of e-Catalog using auctions.

#### **4. DISCUSSION**

Procurement is one of the activities contained in the logistics management cycle. Procurement activities include planning and determining needs up to logistical receipts. (Irmawati, 2014). Procurement of drugs by e-Purchasing is one of the ways in the purchasing process that is determined by the government to meet the needs of health facilities, especially the Health Office in the need for quality and appropriate prices. At the Health Office, drug procurement activities are one of the parts of the pharmaceutical management cycle. Drug procurement activities at the Health Office are the responsibility of the pharmacy department of the Health Office (Permenkes, 2014). Procurement of drugs by e-Purchasing has been carried out by the Health Office since the regulation was issued, namely 2013 until now. To see how the implementation in hospitals is used the theory of Logic Models is seen from the input to the output of this e-Catalog program or policy. Input from the procurement of drugs in E-Purchasing is human resources, budget, procedures, facilities and infrastructure. The process of procuring drugs in an E-Purchasing manner

starts from planning needs, ordering drugs, contractual agreements, and drug delivery. For the output of drug procurement by e-Purchasing itself is the availability of drugs at the Health Office

#### **4.1. Input Procurement of drugs by e-Purchasing**

Input is input that needs to be provided or must be available to carry out an activity or process. Input plays an important role in a system. If the input is not available properly, it can inhibit activities that occur in the process of a system, it can even prevent a system from achieving its objectives. Drug procurement activities based on the Health Department e-Catalog must be able to provide inputs that support the activity process. Inputs from procurement of drugs in e-Purchasing are human resources, procedures, facilities and infrastructure. Human resources are a determining factor in achieving an organizational goal. Human resources are very important assets of an organization. The success of an organization can only be achieved if the rules or policies and procedures relating to humans from the organization are interconnected and contribute to the achievement of organizational goals (Hamid, 2014).

Human resources in the health sector or Health Human Resources are all people whose main activities are aimed at improving health. Health HR in the pharmaceutical field is divided into two classifications, namely pharmacy work, namely pharmacists and pharmacy technical personnel (Pharmacy Service Standards, 2014). The resources assigned to the drug procurement process at the Wondama Bay District Health Office are 8 people including APBN / The budget for 1 person, Manokwari Regency, consists of 9 people including 1 person in charge of the APBN / APBD and 1 Arfak Mountain Regency. The drug planner carried out by E-Purchasing itself consists of the head of the pharmacy section, assisted by pharmacy section staff and pharmaceutical installations. Availability of human resources related to

procurement of drugs in e-Purchasing can be seen from two aspects, namely quantity and quality.

Quantitatively the amount of resources possessed by the Health Office is still less related to the e-Purchasing process of drug procurement. The e-Purchasing officer has additional duties besides the main task in procuring drugs. More additional tasks will disrupt the performance of the officers, this was also found in the Ningsih (2013) study in his research at the Eye Health Service Dr. YAP Yogyakarta states that there is a relationship between workload and the performance of employees or health workers at the Health Office, the greater the workload the lower the performance. This study is also directly proportional to the research conducted by Suryaningrum (2015) that there is a relationship between workload and work stress of health workers or nurses in PKU Muhammadiyah General Hospital Yogyakarta. In addition, based on research conducted by Adyaksa (2015) that limited resources and resources that already have other tasks make the drug procurement team based on e-Catalog e-purchasing ineffective in carrying out the procurement process. The improvement and development of the quality of Health Human Resources owned by health agencies will be able to support the achievement of an effective and efficient health service in the JKN era (RI Health Human Resources Development Agency, 2013).

In quality, the resources owned by the Health Office have enough competence related to the procurement process of drugs that have had a pharmaceutical education background (Health Act No. 26 of 2009). Pharmaceutical work includes making, including controlling pharmaceutical supplies, planning, procuring, storing and distributing drugs must be carried out by health workers who have the expertise and authority in accordance with statutory provisions Quality. This resource can be seen by understanding work procedures that have been implemented in accordance with

established procedures. Based on the pharmaceutical service standards in the Health Service in 2014, pharmaceutical installations must have pharmacists and pharmaceutical technical personnel in accordance with the workload and other supporting officers in order to achieve the goals and objectives of the pharmaceutical installation of the Health Office. The head of the pharmacy installation must be held by the Pharmacist and assisted by pharmaceutical technical personnel. Existing resources at the Health Department Pharmacy Installation when viewed from the quality are in accordance with these regulations by being headed by a Pharmacist and assisted by pharmaceutical technical personnel, while in quantity they are still lacking because the officer holding the assignment is an officer who has multiple assignments.

In this study looking at the budget of the amount of funds that are sufficient and the use of appropriate funds. For the amount of funds in the Health Office, it is sufficient for the implementation of the procurement of medicines e-Purchasing because the budget originating from two sources as well as the procurement officer does not experience a shortage of costs for purchasing drugs in e-Purchasing and this can also be seen from the amount of funds available which has earned all the funds needed, so the procurement process can run well. This is also in line with the results of research conducted by Afriadi (2005) and Ukai (2009) that the procurement of drugs that are running well gets support from several budget sources and precisely the arrival schedule of drugs.

In addition, the budget is also seen in terms of usage or use based on in-depth interviews conducted with several procurement officers. It is known that the utilization of funds has been maximally carried out. The budget provided has been used maximally for e-purchasing drugs. Work procedures for procuring drugs are made in general, namely for all procedures for purchasing both e-Purchasing and Non-

e-Purchasing because technically technical instructions have been provided for purchasing drugs. Based on the results of the in-depth interview, it was found that procurement resources had understood and carried out procedures or technical guidelines regarding procurement based on e-catalogs in e-Purchasing because in addition to the procedures easy to understand, the Health Office was also given guidance from the government. Knowledge and understanding of procedures are important. Based on research conducted by Sa'adah Dkk (2014) it is known that the importance of understanding SOP, knowledge of SOP is one of the factors that influence the efficiency of pharmaceutical supplies.

Technical instructions for the procurement of drugs based on e-Catalog also have been disseminated throughout the work units in the health sector and have been socialized regarding the technical guidelines. In carrying out the procedures and technical guidelines that have been implemented, the officers have begun to carry out in the form of procurement procedures, planning of drug requirements, receiving drugs and technical guidance for e-Purchasing drug procurement. Based on the explanation above, it is known that the procurement officer at the Hospital who has procured the drug in e-Purchasing has understood the technical instructions provided and has performed the procedures at the Health Office. Facilities and infrastructure are one of the inputs that must be prepared to carry out an activity. In Permenkes RI No. 58 concerning pharmaceutical service standards at the Health Office, pharmaceutical services at the Health Office which include 2 (two) activities, namely those that are managerial and clinical. These activities must be supported by human resources, facilities and equipment.

#### **4.2 Proses Pengadaan Obat Berdasarkan secara E-Purchasing**

This data is needed to perform calculations using the method consumption.

For planning drug procurement in e-Purchasing, it is done by separating purchases in e-Purchasing and non e-Purchasing when planning is done the officer will look at the website to determine the number of drugs entered in e-Catalog. After knowing how many drugs to buy, the officer can make a purchase package after seeing in the e-Catalog what drugs are there, then separating the drugs that will be purchased in e-Purchasing and non-e-Purchasing. This is also in accordance with PMK No. 63 of 2014 that prior to ordering drugs, procurement officials will see a list of drugs in e-Catalog so they can determine the list of drug purchase packages based on e-purchasing e-purchasing. Based on the explanation above, it is known that the Health Office has implemented a drug requirement plan in accordance with PMK No. 63 of 2014 and Pharmacy Service Standards at the Health Office, namely by using one method between Consumption, Epidemiology, a combination of consumption methods and epidemiology and adjusted to the budget provided. This planning method is also used for all ways to purchase either e-Purchasing or Non-e-Purchasing.

Planning using the Consumption method is indeed one of the ways in the Pharmacy service standard, but for the purpose of self-planning this method is still not appropriately used, because there are still drug vacancies in the Health Office. This was also found in research conducted by Rahmawati (2015) and Badarudin (2015) that planning procurement of drugs using consumption methods was not in accordance with needs and could not be used as a basis for the study of drug use so that there was often a shortage of drug stocks in the Pharmacy warehouse. In a study conducted by Istinganah (2006), it was shown that failure in planning drug needs could be resulting in a stockpile of medicine at the Health Office. This is also in accordance with the research conducted by Yulistiani (2014) regarding the analysis of drug needs in Pahuwato Regional

Hospital, stating that the inaccuracy in determining the type of drug and the stock void is due to the weak planning process of drug needs at the Health Office. This shows the importance of the process of planning drug needs in supporting the availability of a number of drugs in health.

Based on the explanation above, it is known that the Health Office has been planning drug needs using one of the methods available at the 2014 Pharmaceutical Services Standard, but the planning carried out by planning officers is still not in accordance with the purpose of planning drug needs, namely avoiding emptiness drug.

The drug ordering process is a step in purchasing drugs after planning the drug before, in the process of ordering the procurement officer must also consider the aspects of the distributor / seller, as well as the location of the seller, so that they can avoid long waiting times and get quality drugs. (Irmawati, 2014) After the issuance of e-Catalog based drug procurement policies by the government, the order ordering process can now be done by e-Purchasing, namely the procedure for purchasing goods / services in this case drugs through an electronic catalog system (PMK No. 63 of 2014).

Provider response to orders via e-Purchasing has been established in the new umbrella contract that the length of response responds to e-purchasing orders at the latest 7 Calendar days (Sosialiane, 2015). In the order process carried out by the Health Service, it is known that the procurement often gets a slow response from the provider; sometimes in one purchase can wait for a response from the provider more than 7 days. Delay in response from the provider can actually be penalized because it does not respond to orders through e-Purchasing, this sanction can be a written warning (SP1, SP2). And if this SP is not followed up, the provider of goods / services is subject to 5% of the order / transaction value (Hukomas Setdijen, 2015). The application of these sanctions has not yet

been implemented because there has been no follow-up on the non-compliance of these drug providers at the Health Office. This long response from this provider made the Health Office have to purchase drugs outside of e-Catalog in order to be able to fulfill the needs at the Health Office. Compliance with drug providers or distributors in e-Catalog based drug procurement regulations is indeed still very low, this is seen by the frequency of the distributors not applying the rules that have been set. This was also found in the evaluation of the implementation of the procurement of drugs based on E-catalogue in 2014 and 2015 by the Directorate of Public Medicine Development and Health supplies, which are still found by complaints from the Health Office on the slow response from drug providers, not only that there are also complaints about the fulfillment of drugs that are not compliant with the drug providers (Directorate of public medicine development and health solutions, 2016; Tanan.et.al., 2019, Weya. et.al. 2018).

Based on the explanation above, it is known that the Health Office has implemented a drug ordering process in e-Purchasing and Non-e-Purchasing in accordance with PMK No. 63 concerning Procurement of drugs based on e-Catalog in e-Purchasing, But when ordering drugs that are carried out it is often late because there is no information system that gives a warning if the drug has entered the minimum amount. Contracts or also often referred to as agreements are agreements between various parties that will be affected by the law (Abrams, 2008). The form of an agreement is made in writing (contract), one of which is the signing of the signatures of the parties involved in the agreement. Signatures, besides functioning as a form of agreement, also as a form of agreement on the place, time and content of the agreement made (Wicaksono, Frans Satrio, 2008).

Contract Agreement in e-Catalog procurement in e-Purchasing is a written agreement between the buyer and seller in

this case between the PPK and the goods / service provider or self-managing implementer. Contract agreements are made to make agreements between the two parties so that between the two parties must comply with the agreement that has been made together. The contract agreement in the procurement of Pharmacy was conducted for (PMK No. 63 of 2014).

The contract agreement process carried out by the Commitment Making Officer in Manokwari Regency, Teluk Wondama starts from the previous E-Purchasing process, after which the PPK (buyer) downloads the procurement contract format and contracts with the work distributor / executor appointed by the provider. The agreement that already exists in the sample format contract can be added or reduced in accordance with the agreement agreed between the PPK (buyer) and the distributor / executor of the work. Based on the explanation above, it is known that the contract agreement process carried out is in accordance with the technical instructions and refers to Republic of Indonesia Minister of Health Regulation No. 58 of 2014 concerning the procurement of drugs based on e-Catalog.

This extension of time made the warehouse have to submit another request proposal because to anticipate the drug vacuum in the warehouse, and with this time delay resulted in incompatibility with the plans made. Obstacles in the long waiting time were also obtained in one of the obstacles in the availability of drugs in the JKN era: E-catalogue medicine in 2013-2015 one of the obstacles was a long waiting time (Engko, 2016;Shanti, et.al. 2018). According Ansari (2009) the delay in delivering goods by suppliers is one of the problems that often arise in the process of procuring drugs which results in a drug vacuum. This is also in line with research conducted by Adyaksa in Denpasar city that the distribution of drugs had experienced delays and the realization of the drug did not reach 100%.

Based on the explanation above, it is known that the availability of drugs in Manokwari Regency, Wondama Bay is not yet in accordance with the indicators set by the Director General of Pharmaceutical and Medical Devices 2010. The cause of this vacancy is the delay in ordering applications because there is no information system that can warn if drugs has entered the minimum stock, besides that there are also obstacles from not fulfilling the number of drugs by e-Purchasing by distributors, the extension of the time of drug delivery, and there has been a national drug vacuum.

## **5. CONCLUSIONS**

1. E-Purchasing human resource input in the Teluk Wondama District and Manokwari District Health Offices in the number of pharmacy staff is sufficient and the quality or educational background is sufficient to process e-purchasing drugs while in Arfak Mountains District has not been implemented because limited human resources and supporting infrastructure.
2. Policy input in drug procurement refers to PMK No. 63 of 2014 and Pharmaceutical Service Standard No. 58 of 2014.
3. The input of the availability of facilities and infrastructure is sufficient to support e-Purchasing process of drug procurement except in the District Health Office of Arfak Mountains because there is no electricity and internet network.
4. The process of planning drug needs based on e-Catalog in e-Purchasing is in accordance with PMK No. 63 of 2014 and Pharmaceutical Service Standard No. 58 of 2014 but still unable to avoid a drug vacuum.
5. The process of ordering drugs by e-Purchasing and Non-e-purchasing is in accordance with PMK No. 63 of 2014, but the order time not in accordance with the 2014 Pharmaceutical Service Standards through the process of drug contract agreement in e-Purchasing.
6. The process of distribution or delivery of drugs in e-Purchasing at in Manokwari Regency, Wondama Bay based on the

number, type and time of delivery, according to the contract made. There are obstacles in the form of contract changes (addendum) related to the delivery time.

7. The availability of e-Catalog based drugs in e-Purchasing in warehouses is not in accordance with the indicators set by the Director General of Pharmacy and Health Equipment 2010, which are as many as 8 types of empty stock medicines and 4 types of drugs that have almost depleted stocks. The drug emptiness is caused by the number of drugs that are not all realized, when drug delivery by distributors, drug vacancies have occurred nationwide, and the absence of an information system that can warn the number of drugs entering the minimum stock, so that the booking is not too late.

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