



Analysis Of The Management Of Medicine Supply Needs At Puskesmas Seberang Padang In Padang City

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ABSTRACT

This study aims to determine the management of medicine supply needs at Puskesmas Seberang Padang and the actions taken by Puskesmas Seberang Padang in overcoming the shortage of medicine supply needs. This research includes research with a qualitative approach using primary data, directly from the original source through interviews, observation and documentation to the research site. The data analysis technique uses the Miles & Huberman model. The results showed that in managing the supply of medicine needs, Puskesmas Seberang Padang has carried out planning and procurement. However, the main theory used by researchers cannot be implemented optimally at the Puskesmas Seberang Padang. Because the purpose of the planning carried out by Puskesmas Seberang Padang is to estimate the type and amount of medicine that are close to the needs and based on the budget. Whereas in Supply Chain Management (SCM) planning is carried out to predict and control supply needs and maximize company surplus to minimize additional costs used to purchase supplies on a small basis. When procurement is carried out by Puskesmas Seberang Padang to suppliers, it does not use supplier strategies and criteria. This is due to the urgency of medicine supply needs. So that PPTK employees ask for the type and amount of medicine to all suppliers with the provision of fast delivery. With the aim of minimizing the occurrence of medicine vacancies.

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INTRODUCTION

As the season of disease increases, good health and a strong body are needed. With many diseases spreading, of course, health institutions must take appropriate and quick action. Quick and directed action can cure patients affected by the disease. One of the good actions is the availability of complete medicines. With the existence of complete and good quality medicine, it can indirectly reduce the spread of disease in the community. So that health institutions must be able to fulfill the supply of medicines as an action to reduce disease. According to Chopra & Meindl (2016) the importance of supply chain management to implement an effective and efficient process of producing goods and services or procuring goods to be distributed to consumers. So the need for inventory and supply chain management. Inventory exists in the supply chain due to a mismatch between supply and demand. In this case, inventory is held to reduce costs or increase the level of product availability. Inventory affects the assets owned, costs incurred, and responsiveness provided in the supply chain.

To get complete and good quality medicines, it is very necessary for health organizations or companies to manage the supply chain management of medicines. In supply chain management there are several activities related to the continuity of the supply chain, namely supplier selection and supplier evaluation. Supplier selection is a decision to choose a party from outside the company to supply goods and make that party the main party or trust to provide the desired goods. This must be considered well by the company, because by getting good decisions about supplier selection, the company will benefit from their supply chain. The right supplier selection not only provides benefits, according to Nair & Das (2015) the right supplier selection makes better purchasing performance from the cost of quality, delivery, flexibility and innovation.

According to the Indonesian Ministry of Health, in Permenkes No. 43 of 2019 states that Puskesmas is a health service facility that organizes public health efforts (UKM) and first-level individual health efforts (UKP) by prioritizing promotive and preventive efforts in its working area (Regulation of the Indonesian Minister of Health No. 43, 2019). So it can be concluded that the health center is the first medical personnel who will handle a disease before being referred to the hospital. Puskesmas also has a function to maintain

and improve health as well as prevention, cure diseases, reduce suffering from diseases and restore health in the community.

In fulfilling the supply chain, Seberang Padang Health Center has been provided with a supply of medicines by the Padang City Health Office. This has been regulated in Regulation of the Minister of Health of the Republic of Indonesia Number 26 of 2020 concerning pharmaceutical service standards at puskesmas. To meet the supply of medicines, the Padang City Health Office procures medicines through E-Purchasing, this has been regulated in the Regulation of the Minister of Health of the Republic of Indonesia Number 63 of 2014 concerning Medicine Procurement Based on Electronic Catalogs (e-Catalogue). e-Purchasing is a procedure for purchasing Goods / Services through an electronic catalog system. Electronic Catalog System (e-Catalogue), is an electronic information system that contains lists, types, technical specifications, and prices of certain goods from various Government Goods / Services Providers. So that all the medicine supply needs of the Seberang Padang Health Center are available and the health center can carry out procurement.

Although the Padang City Health Office has met the need for medicine supply, Puskesmas Seberang Padang still experiences medicine shortages. To meet the shortage of medicine, Puskesmas Seberang Padang purchases medicine from suppliers. This can incur ordering costs. So that the objectives of inventory control have not been achieved. Therefore, Puskesmas Seberang Padang gets an additional budget in the form of Capitation Funds, this capitation budget is used if there is an outage of medicine supplies at the puskesmas. And because it often gets an emergency, the health center uses many suppliers in order to meet the pharmaceutical needs of the medicine. This results in the health center not having criteria for their suppliers and not really knowing how the advantages of each of their suppliers.

Supplier selection only refers to suppliers who have medicine supplies in a ready-to-ship state so that the Puskesmas receives medicine from a variety of suppliers. This results in the health center not knowing who is the best supplier of the several suppliers they use. Because Puskesmas Seberang Padang uses suppliers from several suppliers that are used so that the health center knows their suppliers. To evaluate suppliers at Puskesmas Seberang Padang, several criteria can be used that are considered relevant to the needs of medicine suppliers. Medicine management in health centers needs to be studied because efficient medicine management determines the success of overall health center management, to avoid inaccurate and irrational calculations of medicine requirements so that it is necessary to manage medicine accordingly.

METODE

The research that the researchers conducted was descriptive research using a qualitative approach. According to Soegiyono (2011) Descriptive is a method used to analyze data by describing or illustrating the data that has been collected as the system exists without intending to make conclusions that apply to the general public or generalizations. In qualitative research, research is carried out in natural object conditions, where the researcher is the key instrument, data collection techniques are carried out using triangulation (combination), data analysis is inductive/qualitative, and the results of qualitative research emphasize meaning. Primary data sources are research data sources obtained directly from original sources through interviews, observations and documentation (not through intermediaries). (Soegiyono, 2011) Secondary data sources The second source of data is data obtained from other sources related to the research, obtained from library studies and literature related to the problem.

In qualitative research, the term population is not used, but Spradley calls it "social situation" or a social situation which consists of three elements, namely: place, actors and activities that interact synergistically (Soegiyono, 2011).

1. Activities (activities), the process of managing medicine supplies in the form of planning and procurement
2. Performers (actors), Elfiana Anas, S.Farm as Chief Pharmacy Pharmacist and Mahera Miniyana Husein as Technical Activity Implementation Officer (PPTK)
3. Place (place), Seberang Padang Health Center, Padang City.

Test Data

a. Credibility Test

The application of the criterion of degree of trust (credibility) basically replaces the concept of internal validity from non-qualitative. This criterion functions: first, to carry out the inquiry in such a way that the

level of trust in the findings can be achieved; second, to demonstrate the degree of trust in the results of the findings by means of proof by the researcher on the multiple realities being studied.(Moleong, 2007).

Tests of credibility or trustworthiness of qualitative research data are carried out by extending observations, increasing persistence in research, and triangulation.

b. Reliability Test

In qualitative research, dependability testing is done by conducting an audit of the entire research process. The audit is done by providing research evidence such as permits, interview results, observation results, and documentation.

c. Confirmability Test

In qualitative research, confirmability testing is similar to reliability testing, so testing can be done simultaneously. Testing confirmability means testing the results of the research, associated with the process carried out, then the research has met the confirmability standards. In research, do not let the process not exist but the results exist.

RESULTS AND DISCUSSION

Results

According to the Regulation of the Minister of Health of the Republic of Indonesia Number 75 of 2014 article 33 paragraph 4, in carrying out the responsibilities of the Head of Puskesmas to plan and propose the needs of Puskesmas resources to the District Health Office. Planning and proposing the needs of health center resources, one of which is in the form of medicine management. According to Regulation of the Minister of Health of the Republic of Indonesia Number 30 of 2014, medicine management is one of the pharmaceutical service activities, which starts from planning, requesting, receiving, storing, distributing, controlling, recording and reporting as well as monitoring and evaluation. The aim is to ensure the continued availability and affordability of efficient, effective and rational medicines, improve the competence/capability of pharmaceutical personnel, realize a management information system, and carry out quality control of services. The management of medicine supply needs studied at Puskesmas Seberang Padang consists of two activities, namely planning and procurement. Planning begins with forecasting to predict medicine supply needs for the next 1 year. Next, procurement is carried out. Medicine procurement has two ways, namely conducting independent procurement through e-procurement and procuring intermediaries from the Health Office.

Medicine Planning

To meet the medicine supply needs at Puskesmas Seberang Padang, forecasting is carried out first. Forecasting of existing medicines at Puskesmas Seberang Padang is made based on 2 conditions, namely based on Consumption Patterns and Morbidity. Consumption Patterns are forecasting based on medicines that are widely needed and used so that the medicines used are generic. While Morbidity is medicine forecasting based on disease, taking into account factors such as the number of diseases, standard patterns of treatment for certain diseases, lead time, development of disease patterns, waiting time and safety stock. An example of the use of Morbidity Forecasting is during the COVID-19 pandemic. Puskesmas Seberang Padang uses forecasting with the Consumption Pattern Method so that medicines are general or generic and unlimited. For planning Puskesmas Seberang Padang has added 6 months of RKO to anticipate medicine shortages. And procurement carried out by Puskesmas Seberang Padang every 3 months (quarter) 4 times a year. In the procurement, the medicine supply has been provided by the Health Office.

Planning is carried out once a year, carried out in December or at the end of the year. According to the Regulation of the Minister of Health of the Republic of Indonesia Number 30 of 2014, the process of planning medicine needs per year is carried out in stages (bottom-up). The planning carried out by Puskesmas Seberang Padang is called the Medicine Requirement Plan (RKO). The Medicine Needs Plan (RKO) is an estimate of medicine needs for the next year. In making a Medicine Needs Plan (RKO), several things must be considered, namely planning for medicine needs, consumables (BMHP), procurement plans in one year, visit data, trends in the top 10 diseases and the ability of the puskesmas budget. To make a

Medicine Needs Plan (RKO), it is prepared based on the calculation of the average use of medicines in one year and the remaining stock at the end of the year. It can be formulated as follows:

$$g = f$$

$$f = (e) - (d)$$

$$e = (c) \times 18$$

$$d = (a) + (b) - (12 \times (c))$$

Description:

a. : remaining stock of the previous year

b. : revenue during this year

c. : average monthly usage in the previous year

d. : predicted remaining stock at the end of the year

e. : total needs next year

f. : next year's demand plan

g. : next year's procurement plan

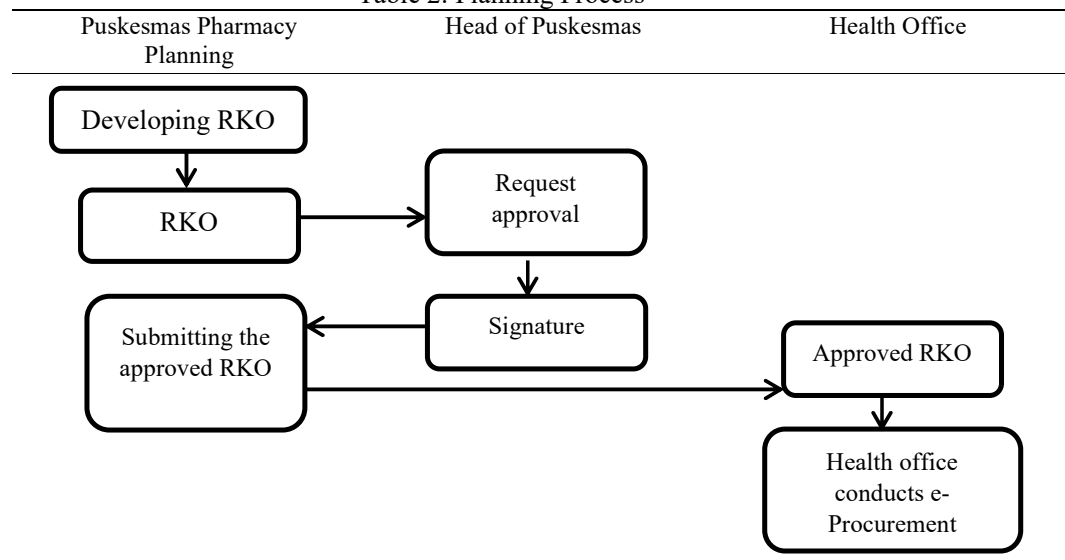
Table 1: Medicine Requirement Plan

No	Name of Medicine	Unit	Remaining Stock As of December 31, 2021	Receipt During 2022	Average Usage Per Month During 2021	Predicted Remaining Stock December 31, 2022	Total Needs for 2023	Plan for Needs for 2023	Procurement Plan for 2023	Description
			(a)	(b)	(c)	(d)=(a)+(b)-(12x(c))	(e)=(c) x 18	(f)=(e) - (d)	(g)	(j)
1	Salep 2-4, kombinasi : asam salisilat 2 %+ belerang endap 4 %	pot 15 gram	36		1	24	18	6	6	
2	Prednison tablet	tablet/kapsul/kaplet	169	500	50	69	900	831	831	
3	Dexamethasone 0,5mg	tablet/kapsul/kaplet	806	8,000	350	4,606	6,300	1,694	1,694	
4	Allopurinol 100mg	Tab	3,891		50	3,291	900	2,391	2,391	
5	Ranitidine	tablet/kapsul/kaplet		7,200	1,200	-	21,600	21,600	21,600	
6	Salbutamol	tablet/kapsul/kaplet	1,192	300	50	892	900	8	8	

This planning, it appears that the Total Needs Next Year (e) is the result of the Average Monthly Usage in the Previous Year (c) multiplied by 18 months for a 1-year supply. The purpose of multiplying 18 months is 12 months for normal supplies and 6 months for anticipation in the event of a medicine shortage.

The RKO approval planning process is described as follows:

Table 2: Planning Process



The annual Medicine Requirement Plan (RKO) that has been prepared by the Chief Pharmacist of Pharmacy will be submitted to the Head of the Puskesmas. The process time for preparing the RKO until it is ready to be signed by the Head of the Puskesmas is about 3 to 5 days. After obtaining approval from the Head of the Puskesmas, the Medicine Requirement Plan (RKO) is sent to the Health Office. The Medicine Requirement Plan (RKO) is given to the Health Office at the end of each year in December. The Health Office will start preparing medicine needs according to the RKO queue that goes to the Health Office. The sooner the RKO is submitted, the sooner the medicine needs will be available for the next year. So that the medicines will come in early or late January. Furthermore, the Health Office submits the RKO to the Regency / City Pharmacy Installation. The District / City Pharmacy Installation will compile and analyze the medicine needs of the Puskesmas in its working area, adjust to the available budget and take into account the time of medicine vacancies, buffer stock, and avoid excess stock.

Medicine Supply Procurement

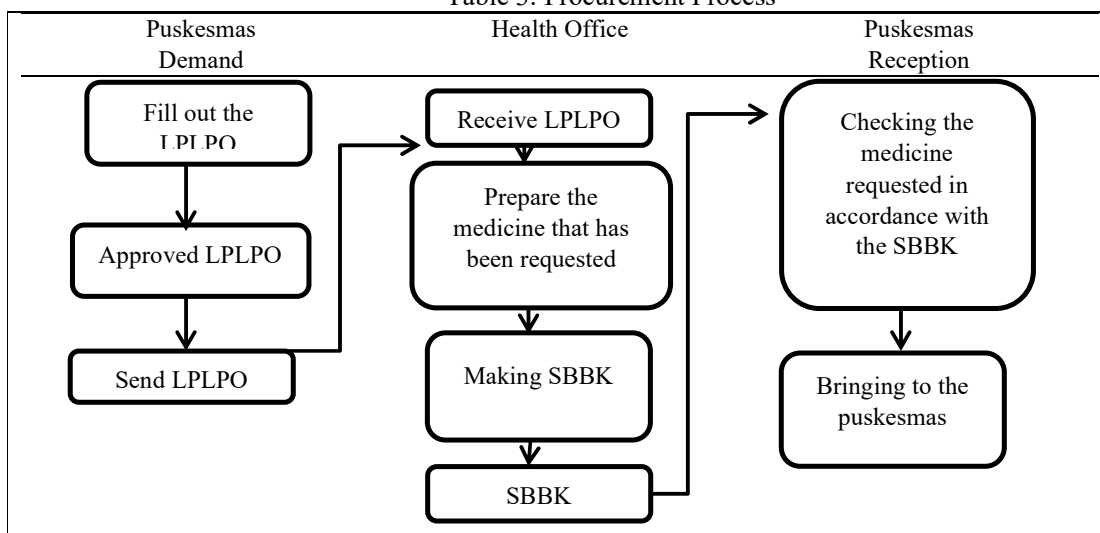
Medicine procurement basically has 2 ways, namely by conducting independent procurement by e-Procurement through the e-Catalog website and procurement requests submitted by the Health Office. In the years before 2022, Puskesmas Seberang Padang conducted independent procurement through the e-Catalog website. However, in 2022 Puskesmas Seberang Padang no longer conducts independent procurement through the e-Catalog website, because Puskesmas Seberang Padang buys a small amount of medicines of approximately 10,000 so that it is not seen by medicine manufacturers in the e-Catalog. Because medicine manufacturers in the e-Catalog prioritize health institutions that buy in large quantities. Not only that, there are often delays in delivery that result in medicine vacancies in the early to mid-year. Therefore, in 2022 until now the Seberang Padang Health Center switched to procuring from the Health Office.

1. Procurement to the Health Center Office

When entering the new year, Puskesmas Seberang Padang procures to the Health Office which is called medicine amprah. Amprah medicine is done every 3 months (quarterly) and is done 4 times during the year. Amprah medicines are made to the Health Office of the Instansi Farmasi Kesehatan (IFK). The IFK is part of the District Health Office that is responsible for the management of medicines and health supplies.

The procurement process can be described as follows:

Table 3: Procurement Process



The procurement of medicine supplies at the puskesmas begins with the planning of medicine supplies by pharmaceutical officers and related staff, then requests for medicines through the Usage Report and Medicine Request Sheet (LPLPO) and is sent to the Health Office for processing. Then the pharmacy officer receives the medicine supply by matching the Medicine Receipt Sheet (LPO) document and the Outgoing

Goods Evidence Letter (SBBK) with the physical supply and making a receipt. The procurement process from filling the LPLPO until the medicine arrives at the puskesmas takes 7 to 15 days.

Table 4: Procurement Process

No	Name of drug and unit	Initial Stock	Acceptance	Supplies	Lk b	Se b Pd g	A.La was	Ran ah	Apo tik	Lab or	Rekap Guda ng	Sisa Klin ik	UG D	K B	Sw ab	GI ZI	BP U	Sis a Sto k	Total
1	Salep	3	100	103			1		2		100							103	0
2	Loperamide tab 2mg	0	500	500					130		300		10					440	60
3	Bioplacepton gel	0	25	25					1		20		1					22	3
4	Prednison tablet	0	2,000	2,000					60		1900		40					2,000	0
5	Dexamethasone 0,5mg	449	2,000	2,449		50	80	110	284		1500							2,000	425
6	Allopurinol 100mg	700	2,000	2,700				68	62		2570							270	0
7	Ranitidine	317	1,400	4,570		80	4	100	129		1300		106					2,888	1,682
8	Aciclovir tab 400mg	348	2,000	2,348				100	190		1800							209	258
9	Ambroxol tab 300mg	180	2,000	2,180		70		80	999		200							134	831
10	Roverton/Ambroxol sirup	0	100	100					7		90							97	3
11	Guaiifenesin 100mg	0	5,000	5,000					672		3300							3,972	1,028
12	Superhoid	0	96	96					30		66							96	0
13	Ambroxol 300mg	436	5,000	5,436				50	0		5000		128					517	258
14	Ambroxol sirup	58	100	158				3	12		120							135	23
15	Guaiifenesin 100mg	225	5,000	7,250			30		220		2000							2,250	5,000
16	Ramolt	140	500	640			27	24	184		350							585	55
17	Salbutamol	0	2,000	2,000					260		1700							1,960	40
18	Farsycol/Chloramfenikol	12	100	112				3	38		50							91	21

The table above is the Medicine Usage Report and Request Sheet (LPLPO). Making LPLPO is a process of accountability for medicine management at the Puskesmas which is compiled in a monthly medicine usage and demand report. This report is used to determine the receipt, supply, expenditure, remainder, and demand for medicines during one period. The procedure for making LPLPO includes recapitulating the final stock, recording the initial stock, receipt, inventory, remaining expenditure and demand for medicines managed at the health center in a certain period of time. Recording the amount of monthly medicine receipts, calculating the amount of medicine inventory, recording the amount of monthly medicine expenditures, calculating the remaining medicine stock, calculating medicine demand.

Purchase of medicine to suppliers

If the medicines amprah from the Health Office or the Health Pharmacy Installation (IFK) are in short supply, the Seberang Padang Health Center can buy its own medicine supply needs. Medicines purchased independently use Capitation Funds. Capitation Funds are monthly payments from BPJS Health to puskesmas based on the number of registered participants. In purchasing medicine supplies, Puskesmas Seberang Padang buys from many suppliers. This happens because Puskesmas Seberang Padang prevents the occurrence of vacancies or medicine shortages. So that the existence of this emergency situation requires Puskesmas Seberang Padang to buy medicine supplies from various suppliers.

The process of purchasing medicines from suppliers can be described as follows:

Table 5: Medicine Purchases to Suppliers in 2023

Date	Supplier	Item Name	Total
18/4/23	PT. Medisia Sain Sindo	Blood.Loncet	20 box
11/5/23		Alkohol swab	20 kotak
25/5/23	PT. Cahaya Intan Andalas	Suction catheter	5 pcs
		Polifix	10 box
		underpad	3 pak
		Plesterin	20 box
26/5/23	PT. Medisia Sain Sindo	Vacutainer EDTA	2 pak
		Vacutainer plain	1 pak
		Salep	100 pcs
31/5/23	PT. Lima Jaya Farmatama	Loperamide tab 2mg	5 box
		Bioplacenton gel	25 tube
27/6/23		Prednison tablet	20 box
		Dexamethasone 0,5mg	20 box
		Allopurinol 100mg	20 box
		Ranitidine	14 box
5/7/23		Aciclovir tab 400mg	20 box
28/8/23		Ambroxol tab 300mg	20 box
		Roverton/ Ambroxol sirup	100 botol
		Guaifenesin 100mg	50 box
2/9/23	PT. Cahaya Intan Andalas	Superhoid	16 box
		Jv catheter	5pcs
		Sput	5pcs
		Apron disposable	2 box
		Underpad	5pak
4/9/23		Jd band adult pink	1 box
		Id band adult blue	1 box
4/9/23		Iv catheter	5pcs
		Syringe	5psc
		Underpad	5pak
8/11/23	PT. Lima Jaya Farmatama	Aprondisposble	2 box
		Id band adult pink	1 box
		Id band adult blue	1 box
		Ambroxol 300mg	50 box
		Ambroxol sirup	100 botol
		Guaifenesin 100mg	50 box
		Ramolt	10 box
		Salbutamol	20 box
		Farsycol	100tube
		Terikortin	100 tube

Due to a shortage of medicine, Puskesmas Seberang Padang purchased the medicine from another supplier. When making purchases to other suppliers, Puskesmas Seberang Padang buys from many suppliers. This happens because Puskesmas Seberang Padang is short of medicines and can be an emergency, Puskesmas Seberang Padang receives medicines from various suppliers without having supplier criteria.

DISCUSSION

In carrying out supply management, companies need to carry out supply chain management. After the research was conducted, the researchers found that the puskesmas opposite padang had carried out supply chain management in medicine management. The supply chain management carried out by the puskesmas opposite Padang starts from managing planning, procurement, storage to distribution to consumers.

1. Planning

Planning carried out by Puskesmas Sebarang Padang Kota Padang is in accordance with the regulations stipulated in the Regulation of the Minister of Health of the Republic of Indonesia Number 30 of

2014 which contains the standards of pharmaceutical services at puskesmas including medicine management and BMHP to pharmaceutical services, and under the guidance and supervision of the Health Office as the implementation of the Ministerial Regulation. In the Regulation of the Minister of Health of the Republic of Indonesia Number 30 of 2014, it is also explained that planning for medicine needs is carried out with the aim of estimating the type of medicine and the amount of medicine so that there is no shortage of medicines. Even though planning has been carried out to meet medicine supply needs, Puskesmas Seberang Padang still lacks medicines. This can be seen from the data on medicine purchases to suppliers in 2023. This medicine shortage can occur if a disease is developing rapidly. So that the need for medicines will increase. And Puskesmas Seberang Padang is allowed by the Health Office to buy medicines from suppliers if there is a shortage of medicines.

Based on the phenomena that occur, this is not in line between the Supply Chain Management (SCM) theory and the management of medicines at the puskesmas in terms of supply chain planning and inventory control. According to Chopra & Meindl (2016) Successful supply chain management requires good supply chain planning in order to maximize supply chain surplus companies start the planning phase by forecasting demand for the coming year or cost. Meanwhile, the theory of Ristono (2009) and Assauri (2008) explains the purpose of inventory control is to keep small purchases of trade goods avoided because it can result in large order costs. So that with the purchase of small purchases of medicines, it creates additional costs and does not maximize the supply chain surplus for the puskesmas.

2. Procurement

With the permission of Puskesmas Seberang Padang to buy medicine supplies from suppliers, there are two ways of procurement at Puskesmas Seberang Padang, namely procurement to the Health Office at the Instansi Farmasi Kesehatan (IFK) and procurement to suppliers. The procurement process of the Health Office at the Instansi Farmasi Kesehatan (IFK) starts from the medicine amprah to the Proof of Goods Out (SBBK) issued by the Health Office in accordance with the Regulation of the Minister of Health of the Republic of Indonesia Number 30 of 2014. However, the procurement carried out by Puskesmas Seberang Padang does not have supplier criteria and supply chain strategies. This is not in accordance with the theory according to Heizer & Render (2017), For goods and services purchased by companies, suppliers, also known as vendors, must be actively selected and managed. Supplier selection considers many factors, such as strategic fit, supplier competence, delivery, and quality performance. Not only that, supplier selection is also related to payment flexibility, the price of goods to the quality of goods.

CONCLUSION

In Supply Chain Management (SCM), planning is carried out to predict and control supply needs and maximize company surplus to minimize additional costs used to purchase supplies on a small basis. This theory cannot be implemented optimally to the Seberang Padang Health Center. Because the purpose of the planning carried out by Puskesmas Seberang Padang is to estimate the type and amount of medicines are close to the needs and based on the budget. When procurement is carried out by Puskesmas Seberang Padang to suppliers, it does not use supplier strategies and criteria. This is because the need for medicine supply is urgent and urgency. So that PPTK employees ask for the type and amount of medicines to all suppliers with fast delivery conditions. With the aim of minimizing the occurrence of medicine vacancies.

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