

## Cost Analysis Based On Unit Costs In Inpatient Rooms At Cendrawasih Regional General Hospital, Dobo, Maluku Province

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### *ABSTRACT*

The calculation for setting the hospital rate based on the unit cost component is the result of calculating the total cost of each activity incurred by the hospital which is then divided by the total output at each cost center. The purpose of this study was to determine the cost analysis based on the unit cost at the Inpatient Installation of the Cendrawasih Dobo General Hospital, Maluku Province. This research is a quantitative research using the descriptive survey method. The population in this study is all financial transactions that occur at the Cendrawasih Regional General Hospital in Dobo in 2022. The sample is all financial transactions related to fixed costs, variable operational costs, and fixed operational costs incurred at the inpatient installation of the Cendrawasih Regional General Hospital. Dobo in 2022. The results of this study show that the rate based on unit costs is obtained for VIP class inpatient care of Rp.248,919, -, Class 1 of Rp.154,778, -, Class 2 of Rp.115,799, - and Class 3 of Rp.83,362,-. Suggestions for hospitals need to consider unit cost analysis, patient's ability, and willingness to pay as material for scientific consideration to determine rational rates that are

balanced between the interests of the hospital and the needs and abilities of the people of Maluku Province.

Keywords: Rates, Unit Cost, Inpatient, Hospital. Patient's ability.

## INTRODUCTION

Health costs in Indonesia tend to increase due to various factors, including the pattern of degenerative diseases, orientation towards curative financing, individual out-of-pocket (service fee) payments, services determined by the provider, advanced technology, development of (sub) specialties medical science, and can not be separated also from the inflation rate. With conditions and situations like this, access to and quality of health services are threatened, especially for people who can't afford them. This causes the level of public health is getting lower. This condition is exacerbated by non-standard hospital rates so that each hospital tends to set its rates (Hosizah, 2013).

Health financing aims to provide sustainable health financing with an adequate amount, allocated fairly, and utilized. Health financing is the number of funds that must be provided to organize and or utilize various health efforts needed by individuals, families, groups, and the community (Kemenkes RI, 2019).

Based on reality, there is a situation in Indonesia that shows a mixture of market forces and the role of the government. Pricing for government and private hospitals is influenced by the government. Specifically for regional government hospitals, the rates are carried out by Regional Regulations. In this case, there are variations in the establishment of regional regulations. Some areas are very loose but some are very stiff. However, for various service components, including VIP wards, rates are determined by the hospital without being determined by government regulations. This system is increasingly being used because the rate set by the government is often not by the unit cost and the occurrence of subsidies (Trisnantoro, 2015).

The term unit cost calculation that is known so far is a part of cost accounting theory, namely the real costs (Utami and Sulistiadi, 2019). For private companies, setting tariffs is the most difficult decision to make, because the information available is usually incomplete. In hospitals, it is even worse because information on unit costs, for example, is very limited. Hospital prospects in the future must be able

to set rates as a profitable component or part of the progress of the hospital itself, if this is neglected then the possibility of the hospital going bankrupt (Razak, 2016).

Variable operational costs (variable costs) are costs whose total changes according to changes in activity/output volume, and are costs incurred to keep a production process going. Included in the non-fixed operational cost component are medical consumables, non-medical consumables, electricity, and telephone costs. This cost changes every year according to changes in the volume of activity/output, operational costs are not fixed (variable cost) related to the number of patients receiving services, if the number of patients increases it will affect the increase in operational costs are not fixed (variable cost) (Fajrin et al., 2019; Palutturi et al 2021, Napiran et al 2021).

Tariffs on health services play an important role in determining the demand for low-income groups compared to high-income groups. For this reason, service tariffs need to be determined rationally by taking into account the cost per unit and the price acceptable to the service users. By knowing the unit costs, the ability to pay, and the willingness to pay the community, the hospital can increase equity efforts by seeing how many service users are in relatively well-to-do groups.

The ability to pay and the willingness to pay are two factors that play a role in the utilization (utilization/use) of medical services which in turn will also affect equity. The ability to pay can be measured using the approach to calculating family income, household expenses, or family assets. While the willingness to pay can be measured by asking someone in two ways, namely how much the individual/family's real expenses for health are at a certain time and by asking directly to an individual how much money (rupiah) is willing to spend to get health services. (Razak, 2016).

Willingness to pay (WTP) is the willingness of users to issue rewards for the services they obtain. Meanwhile, the ability to pay (ATP) is a consideration in spending income/expenses to buy other goods or services. Most people think that the money generated (both basic and additional income) prioritizes and prioritizes the cost of daily necessities and overrides the payment of health service contributions (Marzuki dkk, 2019).

The willingness of people to pay more for those who don't want to pay compared to those who want to pay for the reason that they want to pay arrears, namely when the card can be used, later when

there is money, it's already paid, for medical treatment and the birth of a pregnant wife. In addition, there are also reasons for not wanting to pay the total arrears of contributions, including laziness to pay, uncertain income, and no money, one of the causes of laziness in paying is the disappointment that has been experienced in using the National Health Insurance (JKN) card which has been served late and even not served by health services (Marzuki dkk, 2019).

To overcome the conditions and problems that develop due to the tendency of demand for health services to increase, the low mobilization of funds is not only carried out and adjusted to benefits-oriented and usability-oriented priorities, but also needs to be considered with the suitability of administrative systems and policies and financing systems with cost analysis. unit and ability to pay (Darmawansyah et al., 2018).

Cendrawasih Dobo Regional General Hospital is a Class D hospital consisting of an Outpatient Unit, Inpatient, emergency services and ambulance services, medical procedures, childbirth, medical rehabilitation, dental and oral medical services, hemodialysis, consultation, and special measures, medico-legal, funeral services, diagnostic support, logistics, nursing care, management consulting, management of medical waste and liquid waste, parking services, laundry, and rental of facilities and infrastructure. Specifically for hospitalization, it consists of Class III, Class II, Class I, and VIP Treatment.

Based on the profile data of the Cendrawasih Dobo Hospital, information was obtained that the number of inpatient visits in the last 3 years showed an increase in visits, namely in 2019 there were 641 visits, in 2020 there were 1,025 visits and in 2021 there were 1,153 visits. The rates applied at the Cendrawasih Dobo Regional General Hospital, Maluku Province are based on Regional Regulation No. 1 of 2019 concerning amendments to regional regulation Number 13 of 2013 concerning public service fees. The regional regulation rate based on number 13 of 2013 for class 3 inpatient installations is Rp. 55,000, -, for class 2 inpatient installation of Rp. 70,000, -, class 1 inpatient installation of Rp. 100,000, - and a VIP inpatient installation of Rp. 225.000,-. The current rate is based on Regional Regulation No. 1 of 2019, for class 3 inpatient installations of Rp. 65,000, -, for class 2 inpatient installation of Rp. 105,000, -, class 1 inpatient installation of Rp. 145,000, - and a VIP inpatient installation of Rp. 236.000,-. (Profi RSUD Cendrawasih Dobo, 2022).

Looking at the tariffs applied at the Cendrawasih Dobo Regional General Hospital, Maluku Province, from 2013 to 2019, there were not too many changes, even with inflation and rising prices for medical devices and the cost of these thrive drugs, there were no adjustments based on real costs and had not based on (Permenkes RI No 85 Tahun 2015, 2015) using the calculation of the total cost (total cost) of each activity issued by the Hospital.

## MATERIALS AND METHODS

The type of research used in this research is quantitative using a descriptive survey method. The research location was carried out at the Cendrawasih Regional General Hospital in Dobo, Aru Islands, Maluku Province. The research was conducted in September-October 2022. The population in this study was all financial transactions that took place at the Cendrawasih Dobo Regional General Hospital in 2022. The samples were all financial transactions related to fixed costs, variable operational costs, and fixed operational costs. issued at the inpatient installation of the Cendrawasih Dobo Regional General Hospital in 2022. The research instrument used was a questionnaire. Data analysis using SPSS and Microsoft Excel.

## RESULTS

**Table 1 Recapitulation of Fixed Costs (Fixed costs) for each Cost Center at the Cendrawasih Dobo Regional General Hospital, Aru Islands, Maluku Province in 2022**

Name Cost Center	AIC Building	AIC Non Medical	Medical AICs	Vehicle AICs	Amount	%
Office	228.596.443	1.420.527.864		58.883.313	1.708.007.620	22,4%
Laundry	42.500.867	288.393.502		3.066.839	333.961.208	4,4%
Pharmacy	55.195.931	8.190.315		6.133.678	69.519.924	0,9%
Nutritional Installation	51.408.495	8.137.235		6.133.678	65.679.409	0,9%
Mortuary	30.159.651	5.062.305	4.628.203	3.066.839	42.916.997	0,6%
Central Surgery (OK)	132.532.274	7.688.150	534.790.247	4.906.943	679.917.614	8,9%
ICU	46.445.862	8.554.797	307.900.252	7.973.782	370.874.693	4,9%
IGD	44.079.470	17.427.628	168.687.681	11.653.989	241.848.768	3,2%
UTD	62.204.279	4.360.711	170.382.607	3.680.207	240.627.805	3,1%
Perinatology	39.810.739	1.901.444	284.468.156	3.680.207	329.860.546	4,3%
Maternity	218.193.377	1.830.458	102.647.640	12.880.725	335.552.200	4,4%
Laboratory	141.980.855	13.820.684	259.177.626	7.360.414	422.339.579	5,5%
Radiology	153.812.593	3.867.493	788.262.930	3.066.839	949.009.855	12,4%

Class 1 hospitalization	96.974.834	8.562.558	111.125.058	12.880.725	229.543.175	3,0%
Class 2 Hospitalization	218.193.377	17.312.367	24.076.135	11.653.989	271.235.868	3,5%
Class 3 Hospitalization	361.451.655	23.281.343	203.206.452	19.627.771	607.567.221	8,0%
VIP Hospitalization	143.943.787	21.229.025	34.917.521	14.720.828	214.811.162	2,8%
Child Poly	58.389.084	2.601.115	11.144.976	3.680.207	75.815.381	1,0%
Surgery Poly	58.389.084	4.895.515	27.417.319	2.453.471	93.155.389	1,2%
Internal Medicine Poly	58.389.084	2.305.866	12.876.644	2.453.471	76.025.065	1,0%
Poly Eyes	58.389.084	2.308.848	3.293.332	613.368	64.604.631	0,8%
Poly Obgyn	58.389.084	1.981.895	47.081.976	4.293.575	111.746.529	1,5%
Dental Poly	58.389.084	2.544.785	45.245.530	1.226.736	107.406.135	1,4%
<b>TOTAL</b>	<b>2.417.818.991</b>	<b>1.876.785.903</b>	<b>3.141.330.284</b>	<b>206.091.596</b>	<b>7.642.026.775</b>	<b>100,0%</b>

Source: Primary Data, 2023

Table 1 shows that the total fixed cost is Rp. 7,642,026,775,-. The largest fixed cost is found in the office space cost center, which is 22.4% (Rp. 1,708,007,620) and the smallest fixed cost is in the psychometric and psychology unit cost centers of Rp. 0.6% (42,916,997,-). As for the fixed cost component, medical device investment is the largest, namely Rp. 3,141,330,284, - and the smallest investment cost component is the vehicle investment cost of Rp. 206,091,596,-.

**Table 2 Recapitulation of Semi Variable Costs (SVC) for each Cost Center at the Cendrawasih Dobo Regional General Hospital, Aru Islands, Maluku Province in 2022**

Name Cost Center	Maintenance cost				Employee salary	Total cost	
	AIC Building	AIC Non Medical	Medical AICs	Vehicle AICs		Amount	%
Office	78.489.056	150.621.893	-	25.733.686	2.746.131.600	3.000.976.235	19,1%
Laundry	8.237.232	30.579.038	-	1.340.296	95.083.200	135.239.766	0,9%
Pharmacy	12.944.222	868.438	-	2.680.592	366.318.000	382.811.253	2,4%
Nutritional Installation	17.651.212	862.810	-	2.680.592	294.880.800	316.075.414	2,0%
Mortuary	9.413.980	536.768	294.665	1.340.296	116.138.400	127.724.109	0,8%
Central Surgery (OK)	19.298.659	815.193	34.048.648	2.144.474	270.265.200	326.572.173	2,1%
ICU	13.179.572	907.085	19.603.176	3.484.770	605.157.600	642.332.203	4,1%
IGD	7.060.485	1.847.892	10.739.888	5.093.125	1.071.025.200	1.095.766.590	7,0%
UTD	17.651.212	462.376	10.847.800	1.608.355	163.538.400	194.108.143	1,2%
Perinatology	11.296.776	201.615	18.111.318	1.608.355	137.083.200	168.301.264	1,1%
Maternity	31.772.182	194.088	6.535.298	5.629.244	1.087.404.000	1.131.534.811	7,2%

Laboratory	14.120.970	1.465.439	16.501.138	3.216.711	797.764.800	833.069.058	5,3%
Radiology	15.297.717	410.079	50.186.568	1.340.296	580.860.000	648.094.661	4,1%
Class 1 hospitalization	14.120.970	907.908	7.075.032	5.629.244	1.221.262.800	1.248.995.953	8,0%
Class 2 Hospitalization	31.772.182	1.835.671	1.532.862	5.093.125	1.117.027.200	1.157.261.040	7,4%
Class 3 Hospitalization	57.895.976	2.468.575	12.937.605	8.577.895	1.294.472.400	1.376.352.451	8,8%
VIP Hospitalization	49.423.394	2.250.963	2.223.104	6.433.421	715.269.600	775.600.482	4,9%
Child Poly	15.062.368	275.802	709.570	1.608.355	585.195.600	602.851.696	3,8%
Surgery Poly	15.062.368	519.083	1.745.587	1.072.237	124.764.000	143.163.274	0,9%
Internal Medicine Poly	15.062.368	244.496	819.821	1.072.237	470.182.800	487.381.722	3,1%
Poly Eyes	15.062.368	244.813	209.678	268.059	63.776.400	79.561.317	0,5%
Poly Obgyn	15.062.368	210.145	2.997.582	1.876.415	366.992.400	387.138.909	2,5%
Dental Poly	15.062.368	269.830	2.880.660	536.118	428.454.000	447.202.976	2,8%
<b>TOTAL</b>	<b>500.000.000</b>	<b>199.000.000</b>	<b>200.000.000</b>	<b>90.067.900</b>	<b>14.719.047.600</b>	<b>15.708.115.500</b>	<b>100,0%</b>

Source: Primary Data, 2023

Table 2 shows that the total fixed operational costs (semi-variable costs) are Rp. 15.708.115.500,-. Total fixed operating costs (semi-variable cost) at the office cost center is the largest, namely, 19.1% (Rp. 3,000,976,235.-), and the smallest total fixed operating costs (semi-variable cost) is at the psychology unit cost center of 0.5% (Rp. 79,561,317,-). For the fixed operational cost component (semi-variable cost), employee salaries are the largest, namely Rp. 14,719,047,600, - and vehicle maintenance is the smallest, Rp. 90.067.900,-.

**Table 3 Recapitulation of Variable Costs for each Cost Center at the Cendrawasih Regional General Hospital in Dobo, Aru Islands, Maluku Province in 2022**

Name Cost Center	Cost (Rp)				Total Cost	
	Medical Consumables	Non-Medical Consumables	Electricity cost	Water Fee	Amount	%
Office		109.789.474	151.053.660	71.537	260.914.671	9,77%
Laundry		3.136.842	5.791.094	3.726	8.931.662	0,33%
Pharmacy		9.410.526	11.112.042	7.452	20.530.020	0,77%
Nutritional Installation		9.410.526	12.478.821	7.452	21.896.799	0,82%
Mortuary	48.200.000	3.136.842	789.695	93.147	52.219.684	1,96%

Central Surgery (OK)	217.594.321	3.136.842	30.994.251	721.328	252.446.742	9,45%
ICU	246.080.960	9.410.526	46.411.015	903.896	302.806.397	11,34%
IGD	76.510.500	3.136.842	30.185.573	1.802.575	111.635.490	4,18%
UTD	8.830.500	12.547.368	6.013.829	189.274	27.580.971	1,03%
Perinatology	26.670.480	9.410.526	7.771.659	898.679	44.751.345	1,68%
Maternity	56.306.880	9.410.526	3.590.327	2.340.591	71.648.323	2,68%
Laboratory	37.848.000	18.821.053	18.671.723	3.585.776	78.926.552	2,96%
Radiology	13.440.000	9.410.526	7.761.534	2.686.351	33.298.412	1,25%
Class 1 hospitalization	39.580.050	157.025.376	21.566.638	1.098.386	219.270.450	8,21%
Class 2 Hospitalization	40.056.800	176.995.987	52.353.974	1.638.637	271.045.397	10,15%
Class 3 Hospitalization	47.978.610	251.894.583	47.598.088	3.176.675	350.647.957	13,13%
VIP Hospitalization	76.480.050	157.999.843	33.210.205	867.382	268.557.481	10,06%
Child Poly	15.809.600	6.273.684	1.988.158	6.263.930	30.335.372	1,14%
Surgery Poly	27.837.180	9.410.526	2.320.994	298.815	39.867.515	1,49%
Internal Medicine Poly	96.584.200	9.410.526	1.876.158	7.335.490	115.206.374	4,31%
Poly Eyes	3.025.000	6.273.684	1.513.581	75.263	10.887.528	0,41%
Poly Obgyn	36.086.880	6.273.684	3.316.971	10.735.717	56.413.252	2,11%
Dental Poly	12.194.500	6.273.684	1.630.011	397.923	20.496.118	0,77%
<b>Total</b>	<b>1.127.114.511</b>	<b>998.000.000</b>	<b>500.000.000</b>	<b>45.200.000</b>	<b>2.670.314.511</b>	<b>100,0%</b>

Source: Primary Data, 2023

Table 3 shows that the total variable cost is Rp. 2,670,314,511, -. The total variable operating costs (variable cost) in the class 3 inpatient cost center is the largest, namely 13.3% (Rp. 350,647,957, -), the smallest total variable operating costs (variable cost) is in the laundry cost center of 0.3 % (Rp. 8,931,662,-). The operational cost component is not fixed (variable cost), the medical consumable component (BHP) is the largest, namely Rp. 1,127,114,511, - and the smallest component is the cost of water of Rp. 45.200.000,-.

**Table 4 Comparison of Rational Rates for inpatient classes and Regional Regulation Rates at the Cendrawasih Regional General Hospital in Dobo Maluku Province in 2022**

Class treatment	Rational Rates	Rates Bylaw	Difference
VIP	248.919	236.000	12.919
Kelas 1	154.778	145.000	9.778
Kelas 2	115.799	105.000	10.799
Kelas 3	83.362	65.000	18.362

Source: Primary Data, 2023



Based on the table above, shows that rational rates are higher than the rates applied at the Cendrawasih Dobo Regional General Hospital, Maluku Province, where the class 3 inpatient room is the highest difference in rates, which is Rp.18,362, - while the lowest difference is in the inpatient room Class 1 hospitalization is Rp 9,778.

## **DISCUSSION**

### **1. Amount of Fixed Costs (Fixed Cost) Cendrawasih Regional General Hospital, Dobo**

Based on the results of research that have mapped out in detail the total costs contained in the hospital's fixed costs category, that fixed costs in the category of expenses for salaries and benefits, the value issued by the hospital for a year is Rp. 9,225,021,600, -, fixed costs for the building investment category, namely Rp. 4,399,012,592, -, fixed costs for the medical equipment investment category, namely Rp. 2,818,911,134, - and fixed costs for the non-medical equipment investment category of Rp. 770,497,000,-

The expenditure category for hospital resource salaries and allowances occupies a higher cost than the other categories for 2021. This was recognized by the hospital based on the results of interviews as additional data that expenditures in the form of salaries and benefits are almost every year the most expensive. large, because the number of human resources who are paid regularly consisting of doctors, nurses, field and other supporting human resources totaling 124 people with employment status are civil servants.

Whereas the smallest expenditure in the fixed cost classification for 2021 is the cost of investing in non-medical equipment, while in this cost the largest portion of expenditure is the procurement of personal computer equipment which in its procurement aims to support administrative power by each user whose current system is recording and reporting of each cost center in the hospital has led to a computerized system.

Overall the fixed costs incurred by the hospital for the 2021 fiscal year are Rp. 17,213,442,326, -, with this large expenditure, it is hoped that the hospital will carry out a budget review every year by comparing the number of fixed costs incurred to see how far the difference has occurred and being able to find out the cause of the difference in costs if it is considered that the difference has a gap the greater one. The existence of financial data that calculates the value of fixed costs is not only used as reporting data, but this data has

greater use, especially at the hospital management level as a reference for making decisions related to hospital financing management.

## **2. Amount of Variable Cost (Variable Cost) Regional General Hospital Cendrawasih Dobo**

Expenditure for the second VC in this study can be seen in table 2. This table presents in detail all the categories included in the type of fixed costs, the classification of non-alikes consumables spending costs. BHP Non Alkes as the contents of the table places the expenditure on technical support services as a expenditure with a very large amount compared to other expenditures, valued at Rp. 3,450,250,000, - and conversely, the smallest expense is consulting services, namely Rp. 1,600,000,- for the 2021 issue year.

Shopping for BHP Non Medical Devices is carried out by the Dobo Cenderawasih General Hospital, Kab. Aru Islands Maluku Province, in order to support the quality of service which has been a continuous direction from hospital leaders so that every expenditure made at least increases 1 digit of community satisfaction with services. The dominance of expenditure in the Non-Alkes BHP section so that it absorbs quite a lot of the budget is expenditure for the need for additional HR personnel and expenditure for consulting the hospital with external parties related to hospital management services, such as expenditure for making administrative applications, expenditure for governance workshops hospital finances and spending to increase the capacity of health workers.

Based on expenditures in the form of spending on BHP Alkes and BHP Non-Alkes, the total costs absorbed in 2021, specifically for variable costs are Rp. 9,494,471,259, - if you do the percentage of these two types of spending, spending on BHP Alkes is only about 25% of the total VC, while 75% of the total VC is BHP Non-Alkes. This percentage has a large enough inequality that those in hospital management are obliged to pay attention to this and re-analyze it to test the impact of each expenditure. It is known that the impact of spending on BHP Medical Devices has a direct impact on users because it relates to medical services, while for BHP Non-Medical Devices, more expenditure components do not have a direct impact on patient health, so clear measurements are needed before making these expenditures, especially with the value and very large nominal.

The pricing policy is a strategic and important step in a series of UC calculations to become a hospital service fee. The charging process carried out in hospitals should refer to Hospital Law No. 44 of 2009

with its derivative regulations, namely Permenkes Number 12 of 2013 concerning BLU Hospital Tariff Patterns and Permenkes Number 85 of 2015 concerning National Hospital Tariff Patterns. In the contents of the law and Permenkes policies mentioned above, the essence is that hospital rates must be prepared based on unit costs or UC.

In this study, after obtaining the UC value in the inpatient ward, a fare calculation was carried out as well as a more detailed calculation of the magnitude of the components of the facility services (JS) and services (JP) in the inpatient installation. Because the results of the calculations carried out did not map the UC of inpatient classes, the rate calculation that was carried out started with determining the general inpatient UC by calculating the average UC as shown in Table 4. 14. The average UC result that has been adjusted for hospitalization is a value of Rp. 940,766,-. With this value, it will be the basis for determining the rates for JS and JP components for inpatient services in class III, class II, class I, and VIP class groupings.

### **3. Amount of Semi Variable Cost (Semi Variable Cost) Cenderawasih General Hospital, Dobo**

Based on Table 3 for semi-variable cost expenditures, shopping for cleaning services is the expenditure that absorbs the most costs of Rp. 348,000,000, - and equipment and machinery maintenance expenditure is the expenditure component with the lowest expenditure level, namely Rp. 9,600,000,-. As for the overall total expenditure on the SVC is Rp. 644,289,882, -.

Expenditures for shopping for cleaning services based on data and information in this study, that currently the Dobo Cenderawasih General Hospital, Kab. The Aru Islands, Maluku Province, has not collaborated with the KSO (Operational Cooperation) system as implemented by several other hospitals to make the services provided by the hospital more effective. The use of the KSO system by involving third parties for health institutions in managing the cleanliness of the hospital environment has several good benefits, including budget savings because the hospital is no longer preoccupied with purchasing equipment and maintaining equipment which has so far been an unnecessary workload. controlled by the hospital.

Apart from obtaining budget efficiency, another benefit that can be received with this KSO system is the quality of service provided by third parties which guarantees excellent service compared to cleaning service management which is carried out independently. With a large number of accumulated funds spent by the hospital, it can be

recommended to change the cleaning service system to use the KSO system.

Meanwhile, the amount of expenditure for other types of expenditures contained in the type of SVC costs, such as building and vehicle maintenance expenditures which are indirectly related to medical services, must still be considered by the hospital management because if the expenditure is not on target, the expenditure will be considered as an unnecessary expenditure. unproductive to affect the quality of service. Steps that can be taken by the hospital in carrying out expenditure efficiency at semi-variable cost are that the hospital management reminds and conveys to every health worker who has responsibility for existing facilities and infrastructure, to use the equipment according to needs and by system operating procedures. equipment use.

#### **4. Rational Tariff Assumption Analysis**

Rational rates are set based on unit cost, patient's ability, and willingness to pay. Without neglecting fixed costs (FC) and semi-variable costs (SVC), the unit costs used to calculate rational rates are unit costs resulting from multiple distributions based on formula III ( $TC = VC$ ). The assumption is that investment costs (FC) and employee salary costs (SVC) are subsidized by the government. To obtain a rational rate, the ability to pay households in 1 year is converted into the ability to pay in 1 month. The assumption is that the time needed for health services cannot be ascertained (uncertainly).

The rational rate assumption calculation is carried out by setting a value where the value cannot be below the unit cost and cannot exceed the patient's ATP and WTP. This value cannot be below the unit cost because this unit cost is the unit cost for one class of care, if it is below that, the rate cannot cover the operational costs of the hospital. The tariff assumption should not exceed the patient's ATP and WTP because this value can be paid according to the wishes of the patient. If the rates are below the patient's ATP and WTP, the assumption is that if the patient or his family is sick, to take advantage of hospital health services, especially inpatient care, the patient can be reached at the set rates.

Tariff comparisons are made to distinguish between unit costs and hospital rates. Rates that have been identified through unit cost calculations will be compared with the applicable rates at the hospital based on Regional Regulation No. 1 of 2019. The tariff for health

services applied at the Cendrawasih Dobo Regional General Hospital, Maluku Province is based on Regional Regulation Number 1 of 2019, namely class VIP of IDR 236,000.-. Class 1 is Rp. 145,000, -, class 2 is Rp. 105,000, -, class 3 is Rp. 65,000, - which is higher than the rational rate calculation results, namely VIP, which is Rp. 248,919, -, class 1 of Rp. 154,778, -, class 2 of Rp. 115,799, -, class 3 of Rp. 83,362,-. This is because the regional regulation rates are already based on unit cost calculations and not only based on a comparison of the rates of the nearest hospital. So based on the Regional Regulation Tariff with rational rates there is a difference with each of these classes, namely VIP, namely Rp. 12,919, Class I Rp. 9,778, Class II Rp. 10,799 and Class III Rp. 18,362.

### CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the unit cost study at the Cendrawasih Regional General Hospital in Dobo, Maluku Province, the class 3 inpatient room rate was IDR 18,362 and class 1 hospitalization was IDR 9,778. Suggestions to the hospital need to consider the analysis of unit costs (unit cost), ability and willingness to pay patients as material for scientific consideration to determine rational rates that are balanced between the interests of the hospital and the needs and abilities of the people of Maluku Province.

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