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Simulation Analysis Differences in Capitation Based Service Commitment Fulfillment and Strategies

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ABSTRACT

Most Primary Health Centers (PHCs) has a tendency to increase the number of capitation, but with the indicator of service commitment that must be fulfilled will decrease the actual capitation received. Has not change the norm of capitation since January 2014 and increase drug price have an impact on capitation, gross profit, percentage of drug cost on capitation. The study aims to know difference of capitation, gross profit, percentage of drug cost to capitation before and after simulation of capitation income based on fulfillment service commitment Private Primary Health Centers in Cirebon and knowing its strategy in achieving and indicator of service commitment. Quantitative data collection uses document review and qualitative data using interviews. Differences before and after simulation is conducted with Wilcoxon Test. The qualitative data were analyzed using qualitative SWOT analysis. Wilcoxon Test showed significant differences between capitation, gross profit, percentage drug cost to capitation before and after simulation. Appropriate strategy to fulfill the indicator of service commitment is to increase the competences of medical personnel, calculate unit cost, implement health promotion preventive program, and implementation of standard procedure operational. There is a significant difference between capitation, gross profit, percentage of drug cost to capitation before and after simulation. Private Primary Health Centers should implement preventive health promotion strategy, and improve quality control and cost control.

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KEYWORDS: Simulation, Capitation based service commitment fulfillment, and strategies

I. INTRODUCTION

A Country effort to improve the haelath population through the national health system, social insurance, orprivate insurance model [1]. The Indonesian National Health Insurance (JKN) was commenced in early January 2014, goverment apoint organization appointed as JKN management entity (BPJS Kesehatan) as managers. BPJS Kesehatan share health facilities in two groups, The Primary Health Centers (PHCs) and Advanced Health Facilities. Payment methode in The Primary Health Centers(PHCs) with capitation and non capitation. Capitation are paid by BPJS Kesehatan based on number of registered participants multiplied by the preaviling capitation norms. Capitation is used Private Primary Health Centers routine operational needs every mounth.

Prospective payment methods such as capitation, management of capitation fund received Private Primary Health Centers should be well managed. Because the feasibility and economic value of capitation is felt not yet able to operational needs of routine operations. This study conducted by Andayani and Satibi (2016) show the main issuses from capitation is feasibility and economic value of capitation, utilization of capitation funds, and quality of services provided. [2]. Registred participants in private primary health center are lower than the Community Health Care Center. With fewer capitation and operational expenses tending to increase, quantitatively most Private Primary Health Centers have a deficit. Private Primary Health Centers is trying not to deficit, BPJS Kesehatan has issue new policy related to capitation based on fulfillment of service commitment. There are three indicators that become the reference of its assessment, contac rates, non speciality outpatient reference ratio, and ratio of routine The Chronic Disease Management Program participants to The Primary Health Centers (PHCs). Achievement of this indicator is closely related to the utility of the service, wich means when reaches, the indicator of service commitment , Private Primary Health Centers is high and tends to reduce

actual capitation gained. [3]. The study aims to know difference of capitation, grossprofit, percentage of drug cost to capitation before and after simultation of capitation income based on fulfillment service commitment Private Primary Health Centers in Cirebon and knowing its strategy in acieving and indicator of service commitment.

II. RESEARCH METHOD

This was an descriptive study with the quantitative and qualitative approaches. The study was conducted at Private Primary Health Centers in Cirebon in February-March 2017. Quantitative data is taken from the study of secondary data held by five (5 Private Primary Health Centers related to the cost of drugs and the application p care of January – December 2016. From application p care got contac rates, non speciality outpatient reference ratio, and ratio of routine The Chronic Disease Management Program participants to The Primary Health Centers (PHCs). Quantitatif data analysis techniques use wilcoxon signed rank test to measure differences in capitation, gross profit, and drug cost percentage of capitation before and after simulation. While the qualitative data technique using qualitative SWOT analysis is taken from interview five (5) head primary care clinics to fulfillment strategy of service commitment indicators.

III. RESULT AND DISCUSSION RESULT

1. Distribution of Indicators Service Commitment

The research result of indicators service commitment, which can be seen from table 1.

Table 1. Distribution of Indicators Service Commitmen

Indicators	*Frequency*	*Percentage*
Contac rate		
< 150‰	18	30
≥ 150‰	42	70
Total	60	100
Refferal ratio		
< 5%	48	80
≥ 5%	12	20
Total	60	100
The Chronic Disease Management Program Visit		
< 50%	51	85
≥ 50%	9	15
Total	60	100

From the above table it is known that the number of contac has reached 70% indicator service commitmen, referral ratio has reached 80% indicators of service commitmen. While 15% The Chronic Disease Management Program visit that reached the indicator of service commitmen. From these indicators, a capitation based simulation of service commitmen fulfillment as table 2 below.

Table 2. Simulation capitation

No	*Capitation*	*Frequency*	*Percentage*
1	90%	5	8,3
2	92,5%	19	31,7
3	95%	29	48,3
4	100%	7	11,7
	Total	60	100

Capitation that reached all indicators of service commitmen is only 11,7% and as 88,3% have not reached all indicators of service commitment. from the data above illustrates the clinical tendency in Cirebon not yet have a good strategy in order to fulfill the indicator of service commitment, especially in the implementation of health promotion and preventive activities.

To compare gross profit, and the percentage of drug cost to capitation required data is drug cost. the distribution of drug costs can be shown in table 3 below.

Table 3. Distribution drug cost (IDR)

Drug cost	**KP 01**	**KP 02**	**KP 03**	**KP 04**	**KP 05**
January	1.057.840	2.441.550	3.400	15.936.676	1.115.980
February	1.042.728	2.271.846	13.800	12.787.821	1.176.558
March	2.251.688	2.100.540	19.900	15.150.689	1.210.800
April	2.629.488	1.267.350	13.400	16.016.753	1.187.670
May	2.803.276	1.668.800	35.700	15.795.758	1.185.463
June	2.768.791	1.311.450	57.600	12.202.853	1.117.654
July	1.528.736	1.363.250	53.800	12.874.125	999.765
August	1.430.342	967.550	124.000	16.005.145	1.135.443
September	1.505.248	1.359.037	85.000	14.700.589	988.653
October	1.726.424	1.114.400	94.800	16.200.083	986.580
November	2.387.553	959.250	168.300	16.454.919	1.043.026
December	1.668.315	1.243.400	69.800	13.305.831	985.367
Average	3.869.543				

From table 3 above, it was found that the highest drug cost of 16.454.919 (IDR) , the lowest was 3.400 (IDR), on average 3.869.543 (IDR). Drug cost will determine gross profit earned. Difference average in capitation, gross profit, and percentage of drug cost to capitation can be shown in table 4 below.

Table 4. Difference average in Capitation (IDR), Gross Profit (IDR), and Percentage of Drug Cost to Capitation Before and After Simulation

Difference	*Before Simulation*	*After Simulation*
Capitation		
Average	8.822.033	8.360.433
Gross Profit		
Average	4.952.491	4.91.493
Percentage of drug cost to capitation		
Average	46,89%	49,64%

2. Differences before and after simulation

With the Wilcoxon test, the significance 0.000 (p <0,05) is obtained, so it can be concluded that there are differences in capitation, gross profit, and percentage of drug cost to significant capitation between before simulation with after simulation.

Table 5. Results of Bivariate Analysis

No	Difference	*p*
1.	Capitation before – capitation after simulation	0,000
2.	Gross profit befor – gross profit after simulation	0,000
3	Percentage Drug Costs After Simulation - Percentage of drug cost before simulation	0,000

3. Strategy in fulfilling indicator of service commitment

Qualitative SWOT analysis is related to Primary Clinical strategy in fulfilling indicator of service commitment. The strategy is as follows:

a. Competence of physician and health workers is enhanced.
b. Private Primary Health Centers promote consultation without drugs or healthy visit.
c. Private Primary Health Centers recalculate the unit cost of patient care BPJS Kesehatan.
d. Private Primary Health Centers packs The Chronic Disease Management Program activities with interesting, and provide rewards to attendees and attendees
e. Private Primary Health Centers applies service SOP for implementation of service commitment indicator achievement.

IV. DISCUSSION

1. Distribution of Indicators Service Commitment

The definition of contact rate is the total number of visits of both registered patients and patients who only get health promotion and preventive services.[5]. In the implementation of patient mindset is difficult to change to health promotion and preventive services. Can be ascertained the contact rate recorded is the number of morbidities that get the drug. Can be ascertained high drug costs. This is consistent with Dickstein's (2015) study when patients come with repeat visits, and patients with chronic illnesses will be high on drug costs. [6]

On the referral ratio, describes the competence of the physician is good because it is able to handle patients with 144 diagnoses to be completed in Private Primary Health Centers. But need to be paid attention to satisfaction from physician who provide service. Based on research Buciuniene et.al in Lithuania (2005) physician who work in Primary Health Centers have a high workload and the compensation received is not appropriate to make dissatisfaction factor. [7]

The Chronic Disease Management Program activities have not been a priority, mindset is still on the curative and rehabilitative. When the essence can be practiced, capitation based on fulfillment of service commitment can be achieved 100%, but drug cost can be reduced because level of visit that get the drug is also low, with health promotion and preventive activity. This is in accordance with Agyei et.al (2013) study which states that the understanding of capitation is not comprehensively translated by patients and service providers. [8]

The result of a capitation based income simulation of the service commitment of most its capitation reduce. Incentives given for those who are able to reach 100% indicator of service commitment are not given, because the norm capitation remains. In other countries that apply pay for performance, service providers who are able to reach the indicator will get incentives. this will spur providers to achieve these indicators. This is in accordance with Eijkenaar (2013) study which states that for those who are able to achieve the indicators will be given financial incentives, because the concept of pay for performance is used to improve the efficiency of health services. [9]

The varying drug costs in each primary care clincs depends on the amount of utility services provided. Because the priorities are curative and rehabilitative, the Private Primary Health Centre are high in drug costs, tend to have high drug costs. If there is no change of priority from the rehabilitative curative to preventive promotion it will become a clinical capitation burden.

Ideally with a capitation-based fulfillment of service commitments, a decrease in drug costs per visit or per month. in accordance with the Yip.et al (2014) study indicating that since the existence of pay for performance policy, in rural China there has been a decrease in irrational prescribing by 15%. [10]

Average capitation before simulation is greater than after simulation. This is because most of the Private Primary Health Centers have not been able to meet the indicator of service commitment determined. Ideally, the concept of pay performance is that service providers who can fulfill the service commitment indicator get more incentives. [9]

Average gross profit before simulation is also greater than after simulation. This indicates that most of Private Primary Heath Centers who have not met the indicator of service commitment, and also have not been able to control the cost of drugs. The use of irrational and incompatible drugs will increase service spending. This is consistent with Yip et.al research that irrational prescriptions account for 30-40% of health care spending. [10]

The average cost of drugs to capitation after simulation is greater than before simulation. If visit patient is identical to the coast of drug, then by National standards in the study Dewi et.al (2015) the ratio of agood visit patient is 15% includes bad criteria. [11] .The economic value of capitation is still relatively low, because according to Boateng (2016)

with the increase package provider's need sholud be improved. [12]. It is advisable that the implementation of capitation based on the fulfillment of this service Commitment, BPJS Kesehatan has firstly improved its capability norm of capitation.

2. Differences before and after simulation

With simulation of the implementation of capitation based on fulfillment of service commitment, capitation obtained after simulation becomes lower than before simulation. While the resources deployed to achieve the indicator contac rate, non specialist outpatient referance ratio, and the artio of routine the chronic disease management program participants visiting The Primary Health Centers (PHCs) isvery large. However, the output obtained become smaller. The actual capitation value obtained by Private Primary Helath Centers [3]. With a low capitation value, Private Primary Helath Centers are required to achive indicators. If there is no equalization of capitation and the addition of capitation norms, it will be very burdensome operational funds.

There is significant difference between gross profit before and after simulation. Pay per performance policies have been widely developed in various countries as an approach to improving service efficiency. [3] Nothing that rewards are an incentive for those are able to archieve the indicator. This policy is expected to impact on increasing profits, do not make a decrease in profit.

There is significant difference between percentage drug cost to capitation before and after simulation. Ideally, this policy will reduce cost of drugs that are not rational. As in rural China, there is a `5% reduction in irrational drugs costs after this policy. [10] If there is no change in the direction of health promotion and preventive, percentage of drug costs on capitation will remain high.

3. Strategy in Fulfilling Indicator of Service Commitment

a. Competence of physician and helath workers is enhanced

Because competences is one of the characteristis of good categorized service. The gap between physician and health worker will be equated with competence. [13] Continous training can improve their competences, contac rate can increase, non specialist referral ratio can be suppressed. Physician with good competence, able to handle 144 diagnoses.

b. Private Primary Health Centers promoting non drug consultation or promoting healthy visits

Private Primary Health Centers promoting non drug consultation or promoting healthy visits, become a strategy to achievedservice commitment indicators. This is because the higher the utility of patient visits the actual capittaion will be smaller. [3] However, if the visit is helathy, cost of drug is not high, and service commitment indicator can be achieved.

c. Private Primary Care Centers recalculate unit cost

Drug cost and medical services are the main components in calculating the prevailing capitation norms. [3] as a private sector, which does not get subsidies from goverment , avaibility of medicines as well as medical personnel, can not be empety, must be mainted. Excessive utilization of NHI's euphoria needs to be addressed wisely by the management of Private Primary Health Centers. The strategy according eith Tejokusumo's research, performance and efficiency without reducing the quality of service is the result to be achieved from unit cost calculation. [14]

d. Private Primary Care Centers packing prolanis activities by attracting, and giving rewards to health promotion officer and participants

Unsurprising chronic disease managemnet program activity and inclined only formalities to meet indicator of service commitment,will not produce expected outcomes. Chronic disease managemnet program visit is fulfilled, but the utility of high treatment patients will reduce actual capitation gained. Rewards to health promotion officer with give all honorarium from BPJS Kesehatan.

e. Private Primary Health Centers apply Standard Procedure Operational for implementation service commitment indicator achievement.

It is intended to provide service guidelines and regulatory agreementas related to drug formularies, drug procurement, and other tecnical matters. This is in accordance with the research of Siswi Utami stating that the Standard Procedure Operational in Primary Health Care Centers is not refer to capitation policy based on fulfillment of servuce commitment. [13]

V. CONCLUSION

There is a significant difference between receiving capittaion, gross profit, and drug cost percentage of capitation before and after simulation. Private Primary Health Care Centers should apply health promotion and preventive strategyies, and cost control through calculating unit cost, as well as compliance with standards of booth competence operational procedure.

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