

## Hospital Financial Performance in the Indonesian National Health Insurance Era

Anastasia Susty Ambarriani  
Atmajaya University, Yogyakarta-Indonesia  
anastasiasusty@gmail.com

— *Review of* —  
**Integrative  
Business &  
Economics**  
— *Research* —

### ABSTRACT

Indonesia has reformed its national health insurance scheme. The new national health insurance scheme started on January 1st, 2014. In the new system, there is only one insurer institution, BPJS, a public agency established to implement the social security program. The new national health insurance scheme pays all claims based on package system called Indonesia Case-Based Group (INA-CBG). All public hospitals must implement this new system, and private hospitals are expected to implement this system too. This research observed two public hospitals in Central Java to get the information about the effect of the new claim system on hospital's finance performance. This research was conducted by examining the hospital financial reports and interviewing deeply hospital's management teams.

The study found that public hospital's management perceive that the new system generates more financially surplus. That perception, however, is not in line with the accounting principle. Based on accounting concept, surplus is determined by comparing revenues and costs, meanwhile the surplus perception raised in the New Health insurance system implementation is based on the comparison between the old health insurance claim tariff and the new one. Furthermore, public hospitals achieve a surplus since they receive a donation from the government for salary expenses and investment-related expenses. Public hospitals do not incorporate salaries expenses and investment-related expenses into their financial performance determination.

**Keywords:** National Health Insurance, INA-CBG's, Hospital financial Performance

### Background

Indonesia started to implement The new era of national health insurance program on January 1st, 2014. The program is called Jaminan Kesehatan nasional (JKN) , or The National Health Insurance. The JKN is the embryo of the Universal Health Coverage implementation in Indonesia which is planned to be implemented in 2019. There are some differences between the old national health insurance and the new one. In the old system, there were some institutions that organized the national health insurance

program. There were JamKesMas, JamKesDa and Askes. The JamKesMas was the institution that handled health insurance for poor people, The JamKesda was the state government body that organized health insurance for poor people. The JamKesDa gave an additional donation for poor people if the fund from JamKesMas was not enough to cover all of the health-care costs in that region. The Askes was the institution that took care a health care insurance for government employees. In the JKN, there is only one institution which organizes all national health insurance, it is BPJS, The Indonesian Social Security Body. The BPJS is a government institution which handles all social security matters in Indonesia, including health insurance.

Another difference of the new system comparing to the old one is the claim payment system in hospitals for health-care services provided by hospitals. In the old system there were different claim payment methods for the JamKesMas, the JamKesDa dan the Askes. In The JamKesMas, claim payment system used a package system, based on a diagnosis-group system. Meanwhile the AsKes used a *pay for service* payment system. In this system the claim paid by insurers along with all activities and medicines and other services given by the hospitals. JamKesDa used the combination of both. In the JKN, there is only one claim payment system. The claim payment system is based on the package system by using INA-CBG's rate, the Indonesian diagnosis-related group payment system.

In the beginning of the implementation, hospitals were not happy to implement the new system, because they thought, hospitals could not cover the costs spent for health care services they provided. However, only in a few months, they changed their minds, most of public hospitals are happy to implement this system, because in their opinion this system is more favourable than the old one. Private hospitals, in fact are expected to implement the system, but only few private hopitals are willing to implement it.

This research observed two public hospitals in Central Java. This research aims to get the information, whether the new national health insurance, The JKN is truly favourable for public hospitals.

### **Literature Review**

The JKN is Indonesian National Health Insurance started on January 1st, 2014. This program intends to give a health protection for the members in terms of promotive and curative health cares. The members of National Health Insurance are people who pay the contribution or those, whose contribution are paid by government. In its operation, the JKN is organized by BPJS, The Indonesian Sosial Security Organizing

body. In the JKN, the members have to pay contribution to get the right for health insurance. The government is responsible to pay the contribution for poor people. The others who do not belong to this group, have a choice to join the JKN by contributing an insurance premium. The national health insurance is an embryo for the bigger program of Indonesian national health insurance. It is a Universal Health Coverage which is planned to be implemented in 2019.

### **Universal Health Coverage**

Universal Health Coverage is defined as ensuring that all people can use the promotive, curative, rehabilitative and palliative health services they need of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship (WHO, 2010). The Universal Health Coverage embodies three related objectives:

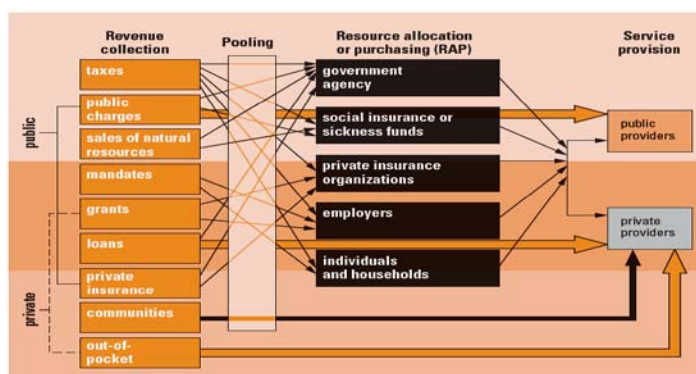
1. Equity in access to health services
2. Good quality of health services
3. Financial-risk protection

Universal Coverage is firmly based on the WHO constitution of 1948 declaring health as a fundamental human right. In Indonesia, Universal Health Coverage is relevant to the 1945 constitution or Undang-Undang Dasar 45 (UUD 45), article 28. Health financing systems are critical for reaching universal health coverage. Health financing systems deal with how the health financing functions ensure the achievement of the three universal health coverage objectives and other national health insurance programs.

### **Health Financing Function**

Health financing function involves the basic function of collecting revenue, pooling resources and purchasing goods and services (Gottret & Schiber, 2006). These functions involve complex interaction among a range of players in the health sector, the interaction can be described at figure 1

Figure 1: The Health Financing function interaction



Source: Gottret & Schiber, 2006

*Revenue collection* is the way health system raise money from household, businesses and external sources. *Pooling* deals with the accumulation and management of revenues so that members of the pool share collective health risks, thereby protecting individual pool members from large and unpredictable health expenditures. *Pooling* coupled with *prepayment* to establish the health insurance. *Prepayment* allows pool members to pay for average expected costs in advance, relieving them of uncertainty and ensuring compensation should a loss occur. *Purchasing* refers to the mechanism used to secure services from public and private providers. Efficiency and equity are critical aspects of all health financing system and are relevant for all financing functions. Basic health financing are generally embodied in these three stylized health financing system models: national health service, social insurance and private insurance.

### Claim Payment system in national health insurance

The National Health insurance guarantees both people's health-care right and the payment for hospitals and other health-care facilities. The health financing system ensures that no more unpaid health services. Hospitals and other health-care facilities can claim health-care service payment to the social body organized by government. There are methods claim payment system. The claim payment system can be retrospective or prospective. The retrospective payment method is considered a fee for service payment method (Kauffman, 2009). This methodology involves insurance companies and other third parties making payment after the provider has rendered a service, based on the service rendered. The rationale behind the retrospective payment method is to give maximum freedom of choice in required services for patient and the provider. Retrospective payments gives patients the choice of medical treatments and

services. A Prospective Payment System is a method of reimbursement in which healthcare payment is made based on a predetermined, fixed amount. The payment amount for a particular service is derived based on the classification system of that service. Health Insurance Prospective Payment System intends to motivate providers to deliver patient's health care effectively and efficiently. The prospective payment approach assumes that the degree of care required (case intensity) is a function of the patient's diagnosis and the payment to the provider should be based on the intensity of care and resources required by the specific diagnosis.

One of the prospective payment approach is the case-mix payment system. In this Prospective Payment System rate codes represent specific sets of patient characteristics (or case mix-group) on which payment determinations are made under several prospective payment systems. Case-mix groups are developed based on research into utilization patterns among various provider types. In case-mix payment system, clinical assessment data is the basic input used to determine which case-mix group applies to a particular patient. A Standard patient assessment instrument is interpreted by a case-mix grouping software. For payment purposes, at least one code is defined to represent each case-mix group. These codes are processed and they result the claim's information. The hospitals use the codes as special revenue information. (Carter, 1994)

The development of case-mix system is diagnosis-related group system. The Diagnosis-related groups (DRG) were developed in 1982 by Robert Fetter, from Yale School Of management and John D. Thomson from Yale school of Public Health (Newman,2013). The system is used to help a hospital manager to control the physician's behavior. The DRGs are means of classifying a patient under a particular group where those assigned are likely to need a similiar level of hospital resources for their care (Newman, 2013). This system allows hospital managers to determine more accurately the type of resources to treat a particular group and to predict the cost of the treatment. Similar to the case-mix group, this system is applied as an insurance payment system. In this system, patients are classified based on the groups of diagnosis, then that groups are coded by using a DRG software. The codes then, translate the diagnosis into the payment that must be paid by insurers. In 1983, DRGs became the system used by Medicare to pay hospitals (Kaufman, 2009).

In Indonesia, diagnosis-related group system was implemented in 2010. it was called The INA-DRG's. In this system, hospitals were paid a set fee for treating patients in a single INA-DRG category, regardless of the actual cost of care for the individual. The INA-DRGs represented groupings diagnosis of the ICD-9-CM codes

into a more manageable number of meaningful patient categories. ICD-9-CM is the International Classification of Diseases. In 2011, Indonesia changed the name of the system into the INA-CBG's system. However, the principle of the system is very similar to the old INA-DRG's. (Wibowo, 2014)

The application of a package payment system in the national health insurance avoids overtreatments and overcosts in health-care services. However, less control leads to the risk of fraud (Morris, 2009). In USA the fraud in the health insurance field is about 3 -11 % of all health insurance claims . The fraud may be caused by modifying a medical record, false diagnosis or any other reasons. The fraud usually is done by medical people or hospitals in order to be able to get more financing. Hospitals should not do a fraud to get more financing in the health insurance system. In spite of doing fraud, hospitals should run their business through three strategic transformation: strategic cost management, business restructuring and clinical skill improvement (Kaufmann, 2012). In order to be able to implement a strategic cost management, hospitals need a competence management accountant.

### **Hospital Financial Performance**

The National Health Insurance helps poor people to get health-care services as it is their basic human right as the 1948 UN declaration of human right. The National Health Insurance also protects people becoming poor due to healthcare cost problems. In this program, the role of hospitals and other healthcare facilities are very important. They must provide good quality health-care services so that the objective of this program can be reached efficiently and effectively. In order to be able to give good quality services, hospitals need to be financially healthy. Financing capability represent a vital element of competitive advantage (Curtis,2009). The hospitals' revenue is collected from services given to their patients. To serve their patients, hospitals spent money for materials, human resources and equipments. In order to be able to survive and make some development, hospitals need to cover all costs they spend. Some surplus is also expected to improve the services. A Surplus is the differences between revenues and costs in a same accounting period. A surplus is one way to figure out a hospital financial performance.

According to the accounting principle, measuring organization's profit (surplus) or loss, should use an accrual accounting concept. Accrual accounting concept is a way of accurately comparing the organization's income against its expenses overtime (Kaufmann,2009). The timing in "recognizing" each of these events is central to the accrual method. Under the accrual basis, organizations record transaction that change

an organisations' financial statement in the periods in which the events occur (Kieso,2014; Carter,2014). In healthcare, accrual accounting entails deciding when patients have received services for which the organization is entitled to income. Formerly hospitals in Indonesia used cash basis accounting to report their financial performance, but the new rule mandates to use the accrual accounting concept. This rule especially is intended to the public hospitals which are organized as Public service entity (Badan Layanan Umum). In this type of organization, public hospitals can be managed as a business organization with flexibility in financial mangement based on productivity and effectiveness. (Indonesian Ministry of Health, 2005,2010). The key points of accrual accounting include the following:

- Income (revenue) is earned when services are provided.
- Expenses are the costs of providing material and service to the parties that receive the service, when the service is being provided.
- The timing of when an organization gets paid for the services it renders, or when it pays for the materials and services it purchases, is irrelevant to the accrual accounting method. Cash flow is a separate issue for consideration.
- Costs of fixed assets (building, equipment and other fixed assets) are recognized by allocating their costs over their estimated useful life.
- The accurate measurement of profits or losses depends upon the correct matching of services provided and the costs of providing these services.

## **Methods**

This research is a case study research. This research observed two public hospitals in Central Java. One hospital is a B type public hospital and the other one is a C type public hospital. B type hospital is a hospital with at least 11 types of basic specialization and limited sub specialization. The B type hospital belongs to a teaching hospital category. On the other hand, C type hospital is a hospital wich has at least 4 types of specialization (Indonesian Ministry of Health, 2010). To examine the effect of the JKN system on hospital's financial performance, this research observed the hospitals' financial report during January-April, 2014. Furthermore, this research compared the average claim in hospitals under hospital rate and INA-CBG's rate for the period of January-April, 2014. This research also compared the hospital's revenues and its costs under accrual accounting concept. In-depth interview was done to collect hospital manager's perception about the effect of the JKN on Hospital financial performance.

## Finding

In the JKN era, the health insurance claim becomes a major revenue for public hospitals in Indonesia. Most of hospitals' revenues come from the insurance claim of health-care service. In the old national health insurance system, *the fee for service* claim payment was used for the AsKes. In the JKN system, there is only one claim payment method. It is a package system and based on the INA-CBG's rate. The system change influences the hospitals' financial performance, since the hospitals' revenues from the AsKes was significant. To examine the influence of the JKN on the hospitals' performance, this research compared the hospitals' healthcare insurance claims using the INA-CBG's tariff to the hospital's own tariff. Tabel 1 figures out the comparison between hospital's revenue/claim per patient for outpatient under hospitals' rate and the INA-CBG's rate during Januari-April, 2014.

Figure 1: Hospital claims for outpatient services

Outpatient	Under hospitals' rate(IDR)	Under INA-CBG's (IDR)
Type B hospital	117.507	251.860
Type C hospital	101.369	165.940

For outpatient cases, the average claim under the INA-CBG's is higher than the average claim under hospital rate. For B type hospital, the average claim for outpatient case under hospitals' rate was Rp 117.507, meanwhile under the INA-CBG, the average claim was Rp 251.860. For the C type hospital, the average claim under hospitals' rate was Rp 101.369 and under the INA-CBG's rate was Rp 165.940.

For inpatient cases, the comparison was done by severity levels and classes for each hospital. Figur 2 describes the average claim comparison for B type hospital in each severity level and each class. Figure 3 shows the average claim comparison for C type hospital in each severity levels and classes.

figure 2 : B type hospital inpatient claims

Severity level	Class I		Class II		Class III	
	Hospital's rate	INA-CBG's	Hospital's rate	INA-CBG's	Hospital's rate	INA-CBG's
Level 1	4.658.031	5.731.301	3.001.464	4.308.715	2.521.232	3.770.186
Level 2	7.350.042	8.331.371	3.762.023	6.309.743	3.298.793	5.213.469
Level 3	6.427.283	12.705.682	9.043.566	11.793.610	6.216.895	7.894.690



Figure 3 :C type hospital inpatient claims

Severity level	Class I		Class II		Class III	
	Hospital's rate	INA-CBG's	Hospital's rate	INA-CBG's	Hospital's rate	INA-CBG's
Level 1	1.808.526	3.201.792	1.559.954	2.846.493	1.092.227	2.676.739
Level 2	2.519.230	5.262.070	1.806.837	4.370.130	1.669.215	3.457.442
Level 3	6.043.146	6.885.934	2.451.830	4.667.782	1.073.012	4.974.479

In each severity level of cases and classes, the claim under INA-CBG is higher than the claim under hospital rate. In both outpatient cases and inpatient cases, the Claims under the JKN are higher than under the hospitals' rate. According to the comparison, hospitals' managers assume the hospital financial performance would be better in the JKN era. If the assumption of surplus based on the tariffs, indeed the JKN system is more favourable for hospitals. However, hospitals should not be too rapid to make a conclusion. They need to examine further whether the JKN system is truly beneficial for hospital's financial performance.

According to the accounting concept, surplus will be achieved when revenues are higher than costs. The accrual accounting concept matches revenues and costs in the same periods. Furthermore in the accrual accounting concept, depreciation costs is recognized in the periods.

Meanwhile the hospital's assumption based on the difference between the tariffs (INA-CBG's tariff and hospitals' tariff). The hospitals' concept about surplus apparently was not inline with the accounting concept. The wrong concept about surplus could make a wrong managements' decision. The wrong hospitals' conclusion can also influence further implementation of the JKN, for Indonesian Government uses the information from the hospitals to make a further decision.

The other thing that must be considered is most of employees in public hospitals are government employees and their salaries are paid by Indonesian Government through Central Government Expenditure Budget, it is called APBN. The salaries are not *out of pocket costs* for public hospitals. This condition affects hospitals to exclude the salary costs from the income determination. Moreover, most of the valuable hospitals' fixed assets are supported by the Government too. Eventually the hospitals' managers do not consider about the depreciation cost. Then the depreciation costs are also excluded from the comparison of claim's revenues and

its costs. The exclusion of these costs makes the hospitals seem to get more surplus in the JKN era. To determine whether hospital's claim revenues cover its service costs in the same period, the comparison between the hospital's claim revenues and its service costs were calculated. Figure 4 describe hospitals' claim revenues and the direct service costs. The service costs were not included the depreciation costs.

Figure 4: Revenues and costs comparison in B type hospital

	January 2014	February 2014	March 2014	April 2014
<b>Inpatient revenues</b>				
Subsidized insurance	111,927,900	2,557,299,981	2,639,017,937	2,830,390,458
Self financing insurance	120,337,900	2,360,074,988	2,686,519,478	2,415,761,708
Non insurance patient	24,348,000	433,818,773	530,857,144	421,523,152
<b>Total inpatient revenues</b>	<b>256,613,800</b>	<b>5,351,193,742</b>	<b>5,856,394,559</b>	<b>5,667,675,318</b>
<b>Outpatient revenues</b>				
Subsidized insurance	183,312,560	636,082,531	607,648,860	644,340,247
Self financing insurance	120,178,399	842,277,918	923,951,056	896,629,469
Non insurance patient	18,190,569	210,366,268	243,185,699	217,246,236
<b>Total outpatient revenues</b>	<b>321,681,528</b>	<b>1,688,726,717</b>	<b>1,774,785,615</b>	<b>1,758,215,952</b>
<b>Total revenue</b>	<b>578,295,328</b>	<b>7,039,920,459</b>	<b>7,631,180,174</b>	<b>7,425,891,270</b>
<b>services cost</b>	5,421,262,543	12,540,227,877	7,313,705,612	7,222,924,804
<b>Service margin</b>	<b>(4,842,967,215)</b>	<b>(5,500,307,418)</b>	<b>317,413,562</b>	<b>202,966,466</b>
General and administrative expenses	5,700,214,680	14,933,391,900	9,253,667,553	9,447,779,433
Surplus/defisit from services activities	-857.247.465	-9.433.084.482	-8.936.253.991	-9.244.812.967

Figure 4 shows that in February and March, 2014 the hospital's claim revenue did not cover its direct service costs. It showed that there was no surplus in this hospital. In March and April 2014, the hospital's claim revenue covered its direct services costs, but it was not including the depreciation costs, which were recorded in general and administrative expenses. Eventhough the hospitals' revenues could not cover their costs entirely, Public hospitals in Indonesia reported surplus in their financial report. The surplus could be attained because they were supported by the government. Their revenues did not only come from the healthcare services they provided, but it also came from the government budget. The valuable and very expensive equipment mostly are funded by the government. It is different from

private hospitals, which fund all their operation by themselves. Although there are some donation or subsidies in private hospitals, but they are unpredictable. This condition may generate the reluctance of private hospitals to join the BPJS. Private hospitals think that the new INA CBG's is still too low to cover hospital operational costs. In addition, private hospitals need some margin to improve their services, meanwhile public hospitals do not face the development problem, as all development costs are supported by the government.

Public hospitals do not have a problem about the valuable equipment and other facilities. Nevertheless, they need to consider about their investment in future. According to the Indonesian National Case-mix Center (NCC), the institution which determines the INA CBG's tariff. The INA CBG's tariffs include the entire healthcare service costs, including salaries and facility costs. It means, in the future, public hospitals should consider about the facility costs in their financial report. The recognition of the facility costs are expressed as depreciation costs.

Moreover, in the future, public hospitals can be managed as a BLU, in which there is flexibility for managers to manage the hospitals' finance. Instead of the old public hospital management regulation, the new one gives some freedom for public hospitals' manager to prepare their own budget, to make their own decision, to make their own development and to invest. The new regulation states that public hospitals can be managed in corporate ways with the principle of productivity, efficiency and effectiveness. As a result, public hospitals must prepare the financial report under accrual accounting principles (Ministry of Health, 2010). Considering this situation, public hospital managers should be careful to manage their financial performance, more over they should hire a competence management accountant so that they can support the hospital managers to do a management function in order to be able to give a better service to their customers.

Most of public hospitals in Indonesia do not have competent finance and accounting managers. The effect of that condition is public hospital managers do not pay attention completely to the financial accounting concept. Inadequate knowledge in accounting concept influences the accuracy in measuring the financial performance. The financial performance indeed is not the main objective in hospital organizations. The accuracy of hospital financial measurement however affects the managers' decision making. Furthermore it affects the hospital's overall performance both in the short run and long run. Figure 5 shows the education background of accounting and financial managers in public hospitals in Indonesia.

Figure 5 : accounting and financial managers is public hospitals

Educational back ground	%
Master in Accounting	5.10
Master in management	6.01
Master in hospital management	13,90
Undergraduate in Accounting	13,20
Undergraduate in management	20,13
Physician	19,44
Others	22.22

Source: Ambarriani, 2014

In public hospitals, there are only 5.10 % accounting and financial managers who have a master degree in accounting. The highest number, 22.22 % shows those who hold the position of accounting and financial managers are miscellaneous graduates, such as politics, nursing, law and many other fields of study. Apparently this condition answers the question why hospital management perceive wrongly the effect of the JKN era on the hospital financial performance (Ambarriani;2012;2014).

### Conclusion

Public hospital management apparently have a wrong perception about the definition of surplus in the JKN era. They assumed that in the JKN era, public hospitals would be more favourable. This perception comes from the comparison of the INA CBG's tariffs and the hospital rate. These tariffs are used as claim payment. According to the accounting concept, the financial surplus of the organisation happens when the revenues are over the costs.

In addition, the new Regulation of BLU requires the accrual accounting concept as a mandatory rule in hospital financial reporting. Therefore, hospital managers should have adequate knowledge about accounting concept. Referring to it, hospital management should consider the competence of their accounting and financial managers so that they can manage their hospitals properly.

### REFERENCES

- [1] Carter, *"Cost Accounting"* 14th edition, Thomson, 2011
- [2] Carter, Grace M; Jacobson, Peter D; Kominski, gerald F; Perry, Mark J *"Use of Diagnosis-related Groups by non Medicare Payers"* Health Care Financing Review 16.2 (Winter 1994); 127 -58

- [3] Curtis, Panayiotis; Roupas, Theodore A “ *HealthCare Finance, The Performance of Public Hospitals and Financial Statement Analysis*,European Research Studies, Vol XII Issue (4), 2009
- [4] Gottret, Pablo and George schieber, “*Helath Financing Revisited, A Practitioner’s Guide*”The World bank, 2006
- [5] Hansen & Mowen “*Managerial Accounting*” International Student Edition, Thomson, South Western, 2007
- [6] Indonesian Government, “*Peraturan Pemerintah Republik Indonesia no 23 tentang Pengelolaan Keuangan Badan Layanan Umum*”, 2005
- [7] Indonesian Ministry of Health, Accounting Guidance fos Hospitals, “*Keputusan Menteri Kesehatan Republik Indonesia,no 1981/2010 tentang Badan Layanan Umum (BLU) Rumah Sakit*,2010
- [8] Kaufmann, Felix “*Hospital Accounting & Finance for Trustee & Other Healthcare Professionals*” 4th edition. Kaufmann, Hall & Associates, Inc 2009
- [9] Kaufmann, felix “ *A Guide to Strategic Cost Transformation in Hospitals and Health System*” Kaufman, Hall & Associates, Inc, 2012
- [10] Morris, Lewis “*Combating Fraud in Health Care: An Essential Component of Any Cost Containment Strategy*”, Health Affairs; September/Octocer ;2009 , Proquest, pd 1353
- [11] Newman, Lucian, “What Are Diagnosis-Related Groups and Why Should You Care?” General Surgery News, volume:40, January, 2013
- [12] Susty Ambarriani Anastasia “*The Use of Management Accounting Information in Hospitals*”, Jurnal Akuntansi Indonesia, Universitas Islam Indonesia, Yogyakarta, 2014
- [13] Susty Ambarriani, Anastasia” *The impact of Manager’s Knowledge Towards Manager’s style in Using Management Accounting Information and Activity-Based Management Implementation*” Review of Integrative Bussiness and Economic Researsch 1(1) p 356-373, 2012
- [14] Weygandt, Kimmel and Kieso “ *Finacial Accounting*” IFRS edition, Wiley, 2011
- [15] Wibowo, Bambang” *Tarif INA-CBG untuk JKN 2014*”,National Casemix Center , Indonesia Ministry of Health, 2014
- [16] World Health Organization, “*The World Health Report*”, Health Systems Financing, the path to Universal Coverage”,2010