

Potential for Fraud of Health Service Claims to BPJS Health at Tenriawaru Public Hospital, Bone Regency, Indonesia

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Background: National Health Insurance (NHI) to meet the demand for Universal Health Coverage in Indonesia is still relatively new. The potential for fraud that can harm patients and others is possible.

Objective: The aim of this study was to obtain in-depth information about the potential fraud of health care claims to the Social Security Agency of Health (BPJS) in Tenriawaru Public Hospital of Bone regency, Indonesia.

Methods: This type of research is qualitative with descriptive analysis. The technique for informant choice was purposive sampling. Data collection techniques included an interview, observation, and documentation. Data analysis was descriptive and validity of data used was achieved through a triangulation of data source.

Results: The results showed that there is a potential fraud that occurs at Tenriawaru Regional General Hospital. The fraud is caused by health care providers such as health workers and coders. There is potential fraud of 8 types: up-coding, readmissions, type of room charge, unnecessary treatment, phantom billing, keystroke mistake, service unbundling of fragmentation and cancelled service. This regulation has included elements of fraud and the types of potential fraud that occurs in primary health care and referral health.

Recommendation: The findings of this research recommend rule development to deter potential fraud perpetrators.

Key words: *Fraud, Health Service Claim, BPJS Health, Bone, Indonesia.*



Background

Commercial health insurance and social health insurance are now a necessity of life (Percheski & Bzostek, 2017; Sommers, Gawande, & Baicker, 2017; Yu, 2017). Initially, the concept of health insurance was not intended to guarantee the entire population. However, the development of the concept of broad national social insurance for the entire population has emerged through the development of National Health Insurance. The term National Health Insurance is now increasingly used globally as evidenced in Ghana (Agyepong et al., 2016), South Korea (J. Lee, Lee, Park, Shin, & Kim, 2016), South Africa (Rosenberg, Weintraub, Madore, Yousif, & Desmond, 2016), China and Singapore (Y. H. Lee, Ang, Chiang, & Kaplan, 2016), England and Wales (Abel-Smith & Titmuss, 2016), Germany (Giaino, 2016), Canada (Hamid, 2016), the Netherlands (Kroneman et al., 2016), and USA (Nahin, Barnes, & Stussman, 2016). In January 1, 2014 Indonesia launched a National Health Insurance scheme (JKN) to achieve Universal Health Coverage in 2019 (Habibie, Hardjosoekarto, & Kasim, 2017; Nurmansyah & Kilic, 2017; Sparrow et al., 2017; Thabrany, 2014; Juliansyah and Asnol, 2016; Aloofy et al., 2017).

Worldwide, in the context of National Health Insurance, there is one payment institution established by the relevant Government, for example the Health Insurance Administering Body (BPJS Health) which manages the National Health Insurance Program. The payment system used is Capitation for first and INA-CBGs (Indonesian Case-Based Groups) for advanced healthcare facilities. These payments are known as prospective payments, that is payments to health facilities before service is provided in contrast to payments that are made after service with an agreed tariff so that health care costs can be controlled (Thabrany, 2014; Sinabutar, 2017). The INA CBG payment system pays for services based on service package or disease diagnosis and disadvantages hospitals because length of stay and service process has no effect on payment tariff to the hospital. As a result, many hospitals commit fraud such as upcoding that raises the payment tariff so that hospital admissions appear to be larger. This practice conflicts with the purpose of hospital payments where tariffs are calculated on provision of services based on the average payment for the diagnosed disease.

Health care fraud is the dominant factor that has contributed to rising health costs. Potential losses due to fraud in the world amounted to 7.29% or USD 487 billion of health funds managed each year. In the United States, potential losses that may arise due to fraudulent health services amounted to 3 - 10% of managed funds. In the UK, fraudulent transaction amounted to 3-8% of managed funds (Data from the research of University of Portsmouth), and caused a loss of 0.5 to 1 million US dollars in South Africa (Prof. Laksono Trisnantoro, 2014). It is estimated that the incidence of health service fraud within the insurance financing system reaches 5-10% with the highest percentage of fraud evident in the medical professional (49%) and consumer context (33%). Adopting the same payment system as the United States and the UK, INA-CBGs, the JKN system implemented in Indonesia, could also potentially lead to fraud. Such

fraud is a deliberate act by participants: health BPJS officials, health providers, and providers of medicines and medical devices to benefit financially from the health insurance program in the National Health Insurance System (Thabrany, 2014; Suksathan, Chotisiri and Vorasiha, 2017; Niha et al., 2016).

Based on preliminary evaluation conducted by the Health Insurance Administering Body after in-depth interviews with a total of 13 verifiers of employees of the Social Security Administering Body, the Watampone Branch states that there is potential for fraudulent service claims made by health facilities as defined by the Minister of Health Regulation No. 36 of 2015 in Ministry of Health of the Republic of Indonesia (2015). This policy concerns fraud prevention for example: bills with unsuitable diagnoses, invoices for non-performing actions, bills that are inconsistent with the rights of the patient class, bills broken down into episodes, procedures and unsuitable supplies with facts and chronological cases. Potentially fraud claims result in financial losses on the Health Insurance Branch of Watampone, South Sulawesi, Indonesia.

Thus the dual purpose of this study was to (1). Analyze the potential fraud of health service claims against the Social Security Agency of Health in Tenriawaru Public Hospital= and (2). Describe the forms of potential fraud occurring in health services at Tenriawaru Hospital.

Materials and Methods

Research Approach

This research study used a qualitative research (Maxwell, 2008; Turner III, 2010). The aim of the research was to explore the phenomenon with regard to potential for fraudulent health service claims against the Social Security Board in Tenriawaru District Hospital Bone. The study tools included in-depth interview and continuous observation during the research.

Research Site

The research was conducted at BPJS Centre of Tenriawaru District Hospital of Bone Regency. BPJS Centre is a place to perform claims administration, from eligibility letters (SEP) to the verification process of health service claims.

Informants

The 15 respondents in this study consisted of 2 key informants and 13 regular informants. Key informants include the Health BPJS verifier officer at Regional General Hospital Tenriawaru, while regular informants are:

- a. Hospital Management (1 person).

- b. Hospital Coder (1 person).
- c. Hospital Officer in the BPJS Centre room (3 persons).
- d. Nurse in Poly Hospital (1 person).
- e. Patients selected purposively (7 persons).

Data Collection

Observation. Observations were made of patient interaction with BPJS Health, for example, when patients submitted their eligibility letter as participants (SEP) in BPJS Centre room and during the process of verification of claim files of BPJS Health patient. The researcher conducted direct observation on the informants i.e. the patient as relevant to the act of fraud potential by the health worker, the hospital staff and the verifier BPJS Health. Also, the researchers observed written documents related to this study such as information about claims fraud. This observation was carried out during the research process so that the data obtained through observation was strengthened by interview data and the researchers took notes during observation.

In-depth interview. The data collected is data about potential fraud claims such as how to recognize fraud, fraud forms and the impact of fraud actions. Interviews also relate to and reinforce the results of observations on the interaction of informants. The authors used free and in-depth interview techniques. In this case, the researchers used tape recorders and digital cameras.

Documentation. The researchers collated documentation and collected fraud potential files to be analyzed specific to forms of fraud potential occurring at Tenriawaru Regional Public Hospital based on supporting documents that discuss health services fraud. Documentation techniques were performed to collect written data to reinforce the data obtained from both observations and interviews.

Focus and Description on Focus

The focus of this research is to determine the potential of health care claims fraud against the Social Security Agency in hospitals Tenriawaru Health District, Bone. A description of the research focus includes:

- a. Potential of fraud: Actions taken by the Hospital to gain profits by committing fraud in health service claims.
- b. Forms of fraud: Forms of action taken by the Hospital in conducting fraudulent health service claims.
- c. Precautionary measures: Measures undertaken by the Social Security Administering Body of Health in preventing fraudulent health service claims.

Data Analysis

The process of data analysis begins by reviewing all available data from various sources i.e. from interviews, observations already written in field notes, official documents and pictures. Once the data is collected, the first step is to reduce the data. Both the primary and secondary data obtained was analysed through comparison and then interpreted and the compilation of research conclusions was drawn from inductive logic. To maintain the validity of the data, in addition to conducting interviews with patients, hospital officials and the BPJS Health verifier, observations were also conducted with health care providers.

This research uses triangulation technique to test data credibility done by checking data to the same source with a different technique. After the researcher conducted in-depth interviews with the informants, validity of the data was checked through observation of the informant and completing the research documentation. In this way data can be obtained from the same informant using different research techniques to ensure the validity of data obtained.

Results

Potential of Fraud

Based on Table 1, the number of BPJS Health participants who visited as inpatients and inpatientst at Tenriawaru Bone Regional General Hospital last year was 36,540. Of this total, there were 30,496 outpatients and 6,044 people were hospitalized. As shown in Table 1, outpatients did not experience a significant increase from monthly to average only around 25 thousand participants of BPJS Health who visited in Tenriawaru Regional General Hospital. Similarly, the BPJS Health participants who were hospitalized did not increase significantly each month, only around 521 people, however occasionally a significant increase and decrease was experienced, as evidenced from January to March in the range of 500 but in April a decrease of around 472 and again an increase in the following month, i.e. in May around 549 and a further decline over the next few months of June, July, August, September and October with only around 400 patients and another increase in the two months at the end of the year in November and December with around 500 patients.

The number of outpatient visits and inpatients at BPJS Health per year is 36,540 people. Costs are paid by the health guarantor of BPJS Health to the provider (Tenriawaru Regional General Hospital) for services provided to BPJS Health participants. The cost of health services for a visit are claimed by the Hospital through BPJS Health every month so that the Hospital can continue to perform sustainable services. The Issuance of Letter of Participation Egilibitas (SEP) is the issuance of a health service guarantee letter to a participant who will receive health service either as an outpatient or inpatient. The service claim process is submitted by BPJS Centre officers as described in the following interview:

"...Our routine tasks are to perform patient data entry in SEP applications and to input patient health service claims in INA CBG's application" (T, 37 Years).

Some potential frauds commonly found at Tenriawaru Regional Public Hospital are as follows:

"There are some potential causes of readmission, usually we put new SEP, according to the date of entry. BPJS officers, who verify whether or not the case is readmission, are adjusted based on previous medical record or medical resume (N, 32 Years).

Patient statements also illustrate the potential for fraud in the hospital as described by a patient:

"This is coming again because 3 days are given the medicine and today are told to check the lab. Though the time before health insurance can be completed one day, so do not back and forth again "(Z, 74 Years).

In addition to the case experienced by Mr. Z, another BPJS Health patient who has the same case stated:

"Two days ago I came for treatment, but the doctor said if you want to go to another poly later in the next two days, this is coming again, I'm also tired of coming" (H, 71 Years).

Hospital management in the respective interview stated that the potential for fraud is always present because there is no prevention system.

"There is no fraud prevention system here because it is not urgent, while it is to be established, which clearly improved the service in the patient as well as other facilities equipped, the clinic guide also does not exist. That needs to be handled properly because if you want to socialize with doctors or other medical personnel about fraud or INA CBG's usually they are busy or a little coming. So, socialization cannot be one time only, many staff still do not really understand about fraud "(R, 44 years).

Based on the above statement it can be concluded that the absence of a fraud prevention system, the absence of sanctions on fraud perpetrators, coders' knowledge of disease coding and procedures according to INA CBGs and the lack of understanding of medical staff regarding INA CBG payment system resulted in a hospital tendency to make fraudulent claims.

Forms of Fraud

In general, eight forms of fraud were found in this study and occurred almost every month as shown in Table 2.

Upcoding

Upcoding involves billing claims based on inaccurate use of diagnosis code or more complex procedures or use of resources being recorded, resulting in a higher claim value than should be made.

"At most cases here are upcoding, healthcare providers provide a lot of diagnosis and action, then they choose which higher claims costs. It is incorporated into the INA CBG's application whereas the patient's medical history is not a diagnosis but the same diagnose procedure with a smaller claim value "(P, 28 years).

Based on BPJS Health verifier documentation, one of the examples that occurred at Tenriawaru Regional Public Hospital was claims based on a medical resume of primary diagnosis of bronchopneumonia and secondary dengue high fever diagnosis (DHF). Procedures undertaken by laboratory investigations show signs of DHF support but not an examination of thoracic images in the context of bronchitis. This means that the primary diagnosis is not suitable because the examination shows signs of bronchitis. The verifier provided a note on the confirmation sheet to be followed up by the coder. After the coder received this, the tariff that was originally six million, was changed as per appropriate diagnosis and the rate adjusted to four million. High potential of upcoding in hospitals can occur because some of the rates of INA CBG are still low and upcoding is used as an excuse not to lose revenue.

Readmission or admission

Repeated readmissions or admissions are usually for inpatient cases. Readmission is also a frequent case in Tenriawaru Regional General Hospital in accordance with a statement from the BPJS Health Verifier.

"Readmissions are also common in hospitalized patients who require lengthy treatment, in collaboration with health workers, to discharge patients administratively by splitting into two episodes when the patient is not discharged" (P, 28 Years).

The verifier shows the patient's medical resume for readmission, for example, the case of a patient admitted on January 22, 2016 and discharged on January 24, 2016, with a diagnosis of a physician tuberculosis and cirrhosis of the liver. Inpatient history in the SEP application

reveals that the patient was re-admitted on January 27, 2016 and discharged on January 29, 2016 with the same diagnosis of tuberculosis and cirrhosis of the liver. The patient was sent home by a doctor. A patients admitted twice with the same diagnosis and complaints at first and second admission, at close interval, is categorized as an episode of care. This case is common in Tenriawaru District General Hospital where data analysis shows that many patients return several days later with the same complaints even though they have been an inpatient and or outpatient previously. Another cause of readmission occurs when patients receive only 3 days of medication and come back for further monitoring or control.

Type of room charge

The type of room charge can be fraudulent where the cost of care for the treatment facility is higher than that actually used by the patient. A case example on the SEP sheet is a description of the appropriate allocation of first-class treatment. The researcher accessed individual patient sheets or INA CBG's sheets of output from INA CBG's application, data entered by hospital personnel as information for first class outpatients. Patients are entitled to be treated in a first-class standard room, whereas in hospital billing sheets there is a classroom patient care report of third-grade patients. This means that patients are not treated in accordance with the appropriate class treatment. There is non-conformity of the right class of care given to the patient with the class submitted through service claims by hospital personnel.

A high fraud rate occurs in Tenriawaru Regional General Hospital. Many patients treated are not in accordance with their appropriate class rights and these class rights are fraudulently recorded with BPJS Health as disclosed by the Hospital Management.

"Many patients are treated not in accordance with their class rights because they are usually class I or class II. So the patient is treated in a lower class "(R, 44).

Unnecessary treatment

Unnecessary treatment is a collection of non-prescribed patient checks or therapy as evidenced in the submission of the BPJS Health verifier as follows:

"This also involves cheating because the number of times a patient is examined using a new fundoscopic and the result should be checked once unless there is an abnormality" (P, 28 years).

An example of this case is cases of patients suffering from hypertension and arthritis shown in BPJS Health records. Based on patient history through SEP application, routine treatment should occur 4 (four) times in a month. From the application, each patient visit involves a



fundoscopic examination based on the verifier documentation. Based on the decision of the Medical Advisory Council (DPM), the fundoscopic examination is no longer performed as recommended and occurs only once, except for the case of cerebral pseudo tumour disease or suspected tumour disease. This is due to the absence of a clinical pathway or hospital clinical guidance in the management of the disease so that the handling and examination of patients with the same disease may vary.

Phantom billing

Phantom billing is when a bill is generated for services that were never provided as described in the comments by the BPJS Health verifier:

"The case of phantom billing is very rare in Tenriawaru Regional Public Hospital, but there is potential"

An examples of a phantom billing case is the added treatment of root canal where a patient did not receive this treatment, only presenting for consultation and not following through with the procedure, however the responsible doctor adds treatment actions to the medical resume.

Keystroke mistake

The keystroke mistake is a mistake in diagnosis or input of a procedure code that can lead to claims of greater or smaller amounts than relevant. An example of this case provided by the BPJS Health Verifier, is where patients have low back pain and neuralgia disease and in response to the patient history, they receive physiotherapy three times a week as per the doctor's recommendation. The treatment given is physical therapy, however, the procedure code entered by the coder is an osteopathic manipulative action according to ICD code 9 CM 93.19. The code does not match the treatment and the procedure should be physically entered according to ICD 9 CM 93.39 coding.

Confirmation made to the coder who did the diagnose input is as follows:

"Our inputs applied as written on the medical resume are not added or subtracted. If the code does not match the tool available, BPJS confirms to the doctor to inquire about the action "(Mrs. F, 36 Years).

The service unbundling of fragmentation

Service unbundling of fragmentation occurs when several separate procedures are charged that should be billed together in the service pack, to obtain a higher claim value in an episode of patient care as described by an outpatient statement:

"I have blood pressure, spinal pain, and gastric pain. I have been taking medication for almost 13 years. Every week I take medication, usually three times a week, because I also do physiotherapy" (Tn.Z).

Cancelled services

Cancelled services as fraudulent behaviour involves billing of medications, procedures or services previously planned but then cancelled. This type of fraud is rare in the Regional General Hospital Tenriawaru as expressed by the BPJS Health verifier.

"Fraud cancelled service or billing of medications, procedures or services previously planned but then cancelled is very rare but the potential fraud of this claim is present" (SR, 24 Years).

The total cost of fraud at Tenriawaru Regional Public Hospital is as shown in Table 3. Table 3 further shows that a number of fees based on the type of fraud occurring at the Tenriawaru Bone Regional Public Hospital, paid by BPJS Health as the organizer of the National Health Insurance, reached an average of 100 to 200 million rupiahs per month.

Discussion

One of the healthcare providers (PPK) continuing in partnership with BPJS Health in order to implement the National Health Insurance program is Tenriawaru General Hospital of Class B. This district is located in the largest regency in South Sulawesi Province, namely Bone Regency. Tenriawaru Regional General Hospital is a hospital owned by the government of Bone District. The coverage area of hospital services includes Bone District to the administrative area of Wajo, Soppeng and Sinjai districts bordering Bone District with the highest number of participants compared to other hospitals in the region. The number of visits has increased since the Regional Health Insurance (Jamkesda) of Bone District was integrated into National Health Insurance as of 1 January 2016.

One of the major problems that occurs in many hospitals is the potential for fraud (Liou, Tang, & Chen, 2008; Nocera, 2010). The potential for fraud may be in the context of the health service provider of health services charging the patient for two service claims within the same disease diagnosis which may be due to patient preference not to visit a second time just for further examination or drug taking. This fraud is a form of fraud split service episode or service unbundling or fragmentation. This study investigated the type of fraud and the number of cases that occurred during a target year. Upcoding is the highest incidence fraud problem that occurs on a monthly basis. In addition, keystroke mistake and unnecessary treatment are common.

Since the number of fraud cases is high, the total cost of fraud paid per month to the Tenriawaru Regional Public Hospital is also very high and precautions need to be implemented.

One hospital motive to commit fraud is a result of the pressure of financial problems or personal medical services by medical personnel so that they look for an opportunity to commit health care claims fraud. In this case, the hospital or health worker was found to perceive that the act is not fraudulent but within their rights as, if they do not commit fraud, then medical services will be reduced or there will be none at all. Partono F (1987) summarized that the factors underlying the occurrence of fraud are pressure, opportunity and rationalization. The potential for fraud by the provider (hospital) or the provider of health services is the dominant factor causing the rising cost of health services. The change of the payment system to INA CBG is potentially the reason for the emergence of fraud where a diagnosis can be Upcoded to raise the CBG payment code to the highest scale (Thabrany, 2014).

Therefore, health services in this era of National Health Insurance, implemented by using the principle of mutual assistance (gotong royong) with affordable dues, has the potential to increase the occurrence of fraud, especially in health provision. Therefore, good cooperation from the participants, BPJS Health and the Hospital to prevent the occurrence of fraud is very necessary. However, it is undeniable that hospitals will always have potential for fraud and that this potential will become even greater if the Tenriawaru Regional Public Hospital has no fraud prevention system or anti-fraud system. Further, it can be concluded that the absence of a fraud prevention system, the absence of sanctions on fraud offenders, the lack of coded knowledge of disease coding and procedures according to INA CBG and the lack of understanding of medical personnel about the INA CBG payment system caused the Hospital to take fraudulent action. According to Albrecht et al (2009), weak internal controls within the organization and the knowledge possessed by fraud perpetrators leads to an organization such as a hospital committing fraud. In addition, the potential for such fraud may be caused by ignorance of fraud, and possibly, the difference in price between INA CBG and hospital rates.

In general, hospitals could be prone to fraud if a fraud prevention system does not exist. This research found that: many hospital health workers do not understand what fraud is; and that the staff behavior in writing and filling out medical records, incomplete data and writing that cannot be read, incorrect documentation and medical record writing behavior that is deficit are indicators of a poor Hospital Management Information System. The role of the BPJS Health verifier is also very important in minimizing hospital bills. The problem of fraud at Tenriawaru Bone Regional Public Hospital can be divided into three major categories: Hospital, medical staff and medical record or coder.

Hospital

- No anti-fraud policies and procedures
- Limited understanding of hospital management about fraud
- No self-verifier in the hospital
- The unfinished standard of medical services in hospitals (Clinical Practice Guides)

Medical Staff

- Do not understand fraud
- Inappropriate standards in writing of medical records, illegible handwriting and incomplete medical records
- Working out of the Clinical Practice Guide, providing sponsorship-based treatment

Medical Record Staff or Coder

- Do not understand fraud
- Provide codes that do not comply with CBG's INA coding guidelines

Therefore the potential for fraud, whether occurring in hospitals, medical staff or medical records needs to be incorporated as part of a system that can prevent its occurrence as an anti-fraud mechanism to minimise patient harm and the hospital as a whole.

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Conclusions

There is a potential fraud that occurred at Tenriawaru Regional General Hospital. Fraud occurs caused by health care providers ie health workers and hospital coders. Eight types of potential forms of fraud include upcoding, readmission, and type of room charge, unnecessary treatment, phantom billing, mistake keystroke, service unbundling of fragmentation, and canceled service. Claim prevention measures taken by the Hospital have not gone well. For the moment the early detection of fraudulent claims made by verifiers BPJS guided by the PMK No. 36 of 2016 and guidelines on the verification of health service claims files. This study is expected to be an additional reference in the prevention and action against fraud in hospitals.

REFERENCES

- Abel-Smith, B., & Titmuss, R. M. (2016). *The cost of the national health service in England and Wales*: Cambridge University Press.
- Agyepong, I. A., Abankwah, D. N. Y., Abroso, A., Chun, C., Dodoo, J. N. O., Lee, S., . . . Oh, J. (2016). The “Universal” in UHC and Ghana’s National Health Insurance Scheme: policy and implementation challenges and dilemmas of a lower middle-income country. *BMC Health Services Research*, 16(1), 504.
- Giaimo, S. (2016). Germany: Modernizing Social Health Insurance to Meet New Challenges *Reforming Health Care in the United States, Germany, and South Africa* (pp. 95-142): Springer.
- Habibie, W. L., Hardjosoekarto, S., & Kasim, A. (2017). Health Reform in Indonesia towards Sustainable Development Growth (Case Study on BPJS Kesehatan, Health Insurance in Indonesia). *Review of Integrative Business and Economics Research*, 6(3), 375.
- Hamid, I. S. A. (2016). Comparing How Ghana and Canada Succeeded in the adoption of the National Health Insurance (NHI): A Multiple Streams Approach. *Journal of Public Administration and Governance*, 6(2), 150-168.
- Kroneman, M., Boerma, W., van den Berg, M., Groenewegen, P., de Jong, J., & van Ginneken, E. (2016). Netherlands: Health System Review. *Health systems in transition*, 18(2), 1-240.
- Lee, J., Lee, J. S., Park, S.-H., Shin, S. A., & Kim, K. (2016). Cohort profile: The national health insurance service–national sample cohort (NHIS-NSC), South Korea. *International journal of epidemiology*, 46(2), e15-e15.
- Lee, Y. H., Ang, T. F. A., Chiang, T. C., & Kaplan, W. A. (2016). Growing concerns and controversies to Taiwan's National Health Insurance—what are the lessons from mainland China, South Korea, and Singapore? *The International journal of health planning and management*.
- Liou, F.-M., Tang, Y.-C., & Chen, J.-Y. (2008). Detecting hospital fraud and claim abuse through diabetic outpatient services. *Health care management science*, 11(4), 353-358.
- Maxwell, J. A. (2008). Designing a qualitative study. *The SAGE handbook of applied social research methods*, 2, 214-253.
- Nahin, R. L., Barnes, P. M., & Stussman, B. J. (2016). Insurance Coverage for Complementary Health Approaches Among Adult Users: The United States, 2002 and 2012. *NCHS data brief*(235), 1-8.



- Nocera, A. (2010). Performance-based hospital funding: a reform tool or an incentive for fraud? *Medical Journal of Australia*, 192(4), 222.
- Nurmansyah, M. I., & Kilic, B. (2017). The Impact of National Health Insurance Policy to the Implementation of Health Promotion Program on Public Health Centre in Indonesia. *Kesmas: National Public Health Journal*, 11(3), 103-110.
- Percheski, C., & Bzostek, S. (2017). Public Health Insurance and Health Care Utilization for Children in Immigrant Families. *Maternal and Child Health Journal*, 1-8.
- Prof. Laksono Trisnantoro, M., PhD. (2014). Penyusunan Kerangka Proposal Penelitian Operasional untuk Pencegahan dan Pengurangan Fraud dalam JKN.
- Rosenberg, J., Weintraub, R., Madore, A., Yousif, H., & Desmond, C. (2016). Political leadership in South Africa: National Health Insurance.
- Sommers, B. D., Gawande, A. A., & Baicker, K. (2017). Health insurance coverage and health—what the recent evidence tells us: Mass Medical Soc.
- Sparrow, R., Budiyati, S., Yumna, A., Warda, N., Suryahadi, A., & Bedi, A. S. (2017). Sub-national health care financing reforms in Indonesia. *Health Policy and Planning*, 32(1), 91-101.
- Thabrany, H. (2014). *Jaminan kesehatan nasional*. Jakarta: Rajawali Pers.
- Turner III, D. W. (2010). Qualitative interview design: A practical guide for novice investigators. *The qualitative report*, 15(3), 754.
- Yu, M. I. (2017). KIT-INTL-Private health insurances.
- R. Sinabutar, “Influence of the quality of medical and administrative services on the inpatients’ loyalty at the Adventist Hospital Bandung,” *International Journal of Health and Medical Sciences*, vol. 3, no. 1, pp. 13-22, 2017.
- W. Suksathan, L. Chotisiri and P. Vorasiha, “Undergraduate students perception towards the 1st clinical experiences in fundamental nursing skills practicum: A qualitative study,” *International Journal of Health and Medical Sciences*, vol. 2, no. 3, pp. 64-67, 2016.
- S. Niha, B. Jantarasiriput, N. Tonyongdalaw and N. Vaichompu, “Reproductive health among bangoebadae muslim women: Cervical cancer care,” *International Journal of Health and Medical Sciences*, vol. 2, no. 3, pp. 52-57, 2016.
- E. Juliansyah and U. B. Asnol, “Workers behavior in maintaining health management waste in the final disposal,” *International Journal of Health and Medical Sciences*, vol. 2, no. 2, pp. 32-36, 2016.



T. A. Aloofy, L. Al-Ansary, L. G. Mokhlis, N. K. Khalil, N. H. Abo Alsamh, N. A. Faden, S. and M. Borai, “Public knowledge and practice of sore throat management among visitors of primary care clinic in Riyadh, Saudi Arabia,” *Journal of Advances in Health and Medical Sciences*, vol. 3, no. 2, pp. 1-8, 2017

Table 1: Number of Patient BPJS Health per month at Regional General Hospital of Tenriawaru Bone

Month of verification	Cases	
	Outpatient	Inpatient
January	2,730	521
February	2,525	521
March	2,596	552
April	2,773	472
May	2,525	549
June	2,572	471
July	2,267	454
August	2,488	487
September	2,596	447
October	2,396	496
November	2,449	533
December	2,579	541
Total	30,496	6,044

Source: BPJS Health Watampone Branch, 2016

Table 2: Type of Fraud and Number of Cases that occurred at Tenriawaru Bone Regional Public Hospital

Months	Type of Fraud	Number of Cases
January	Upcoding	25
	Prolonged Length Of Stay	3
	Phantom Billing	50
	Readmissionon	2
	Services unbundling	1
February	Upcoding	49
	Prolonged Length of Stay	3
	Type of Room Charge	6
	Readmission	3
March	Upcoding	152
	Type if Room Charge	8
	Service Unbundling	40
	Unnecessary Treatment	59
April	Upcoding	53
	Prolonged Length of Stay	1
	Phantom Billing	7
	Readmission	1

	Services Unbundling	56
	Upcoding	132
	Readmission	5
	Cancelled Services	2
	Type of Room Charge	6
May	Keystroke mistake	318
	Phantom procedure	1
	Service unbundling	10
	Unnecessary treatment	186
June	Upcoding	176
	Readmission	4
	Type of Room Charge	21
	Phantom procedure	1
	Service unbundling of fragmentation	4
	Unnecessary treatment	186
	Cancelled services	4
July	Readmission	4
	Upcoding	107
	Keystroke Mistake	85
	Phantom Billing	5
	Service unbundling of Fragmentation	16
	Unnecessary treatment	4
	Type Of Room Charge	3
	Repeat billing	15
August	Upcoding	54
	Readmission	4
	Cancelled Services	2
	Type of room charge	1
	Keystroke mistake	92
	Phantom Billing	1
	Repeat Billing	1
	Service unbundling	37
	Unnecessary treatment	125
September	Readmission	7
	Upcoding	130
	Inflated Bill	1
	Keystroke Mistake	110
	No Medical Value	1
	Phantom Procedure	1
	Unnecessary Treatment	121



October	Type of Room Charge	6
	Type of Room Charge	5
	Inflated Bills	1
	Keystroke Mistake	135
	Unnecessary Treatment	48
	Upcoding	180
	No Medical Value	38
	Services Unbundling	19
November	Type Of Room Charge	3
	Readmission	4
	Keystroke Mistake	84
	No Medical Value	65
	Service Unbundling	31
	Unnecessary Treatment	82
	Upcoding	107
December	Repeat Billing	1
	Type of Room Charge	15
	Readmission	4
	Keystroke Mistake	80

Source: BPJS Health Watampone Branch, 2016

Table 3: The total cost of fraud at Tenriawaru Regional Public Hospital

Months	Type of Fraud	Total Cost of Fraud (Rp)
January	Upcoding	59,777,000.00
	Prolonged Length Of Stay	6,666,800.00
	Phantom Billing	2,765,000.00
	Readmission	9,003,400.00
	Services unbundling	1,431,400.00
	Total	79,644.600.00
February	Upcoding	92,348,300.00
	Prolonged Length of Stay	1,293,600.00
	Type of Room Charge	8,409,000.00
	Readmission	6,431,600.00
Total	108,482,500.00	
March	Upcoding	115,933,801.00
	Type of Room Charge	8,613,100.00
	Service Unbundling	11,872,000.00
	Total	136,418,901.00
April	Unnecessary Treatment	19,076,570.00
	Upcoding	112,038,061.00
	Prolonged Length Of Stay	2,188,000.00
	Phantom Billing	6,162,000.00
	Readmission	9,478,300.00
	Services Unbundling	95,391,520.00
Total	244,334,451.00	
May	Upcoding	82,274,990.00
	Readmission	16,495,900.00
	Cancelled Service	4,123,000.00
	Type of Room Charge	3,250,000.00
	Keystroke mistake	24,823,600.00
	Phantom procedure	29,800.00
	Services unbundling	998,600.00
	Unnecessary treatment	9,286,900.00
Total	141,282,790.00	
June	Upcoding	157,871,200.00
	Readmission	13,322,500.00
	Type of Room Charge	12,426,400.00
	Phantom procedure	29,800.00
	Service unbundling of fragmentation	4,322,100.00
	Unnecessary treatment	9,547,200.00

	Cancelled Services	8,198,600.00
	Total	205,717,800.00
July	Readmission	14,539,309.00
	Upcoding	76,130,900.00
	Keystroke mistake	8,649,700.00
	Phantom billing	233,500.00
	Services unbundling or fragmentation	2,127,400.00
	Unnecessary treatment	361,500.00
	Type of Room Change	3,539,083.00
	Repeat billing	4,971,400.00
	Total	110,552,792.00
August	Upcoding	79,184,800.00
	Readmission	32,830,400.00
	Cancelled Services	319,900.00
	Type of room charge	464,200.00
	Keystroke mistake	14,996,900.00
	Phantom Billing	51,000.00
	Repeat Billing	366,300.00
	Services unbundling	6,391,300.00
	Unnecessary treatment	6,120,500.00
	Total	135,187,300.00
September	Readmission	44,638,300.00
	Upcoding	98,635,400.00
	Inflated Bills	59,700.00
	Keystroke Mistake	13,224,200.00
	No Medical Value	29,800.00
	Phantom Procedure	282,600.00
	Unnecessary Treatment	5,808,600.00
	Type of Room Charge	5,520,000.00
	Total	123,560,300.00
October	Type of Room Charge	7,767,800.00
	Inflated Bills	3,860,300.00
	Keystroke Mistake	135,509,400.00
	Unnecessary Treatment	5,559,700.00
	Upcoding	86,689,500.00
	No Medical Value	6,238,100.00
	Service Unbundling	3,109,700.00
	Total	248,734,500.00
November	Type of Room Charge	1,362,900.00
	Readmission	11,947,800.00



	Keystroke Mistake	36,914,300.00
	No Medical Value	8,614,800.00
	Services Unbundling	4,230,100.00
	Unnecessary Treatment	7,586,200.00
	Upcoding	79,996,000.00
	Repeat Billing	3,154,500.00
	Total	153,806,600.00
December	Type of Room Charge	12,173,800.00
	Readmission	17,896,700.00
	Keystroke Mistake	6,872,700.00
	Total	36,943,200.00

Source: BPJS Health Watampone Branch, 2016