



## Factors Influencing Reimbursement of Hospital Financial Claims by Private Health Insurance Companies in Kenya

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### ABSTRACT

**Introduction:** Despite the positive aspect of private health insurances, a number of challenges related to claims reimbursement for services offered to the insured have been raised. According to lean Six Sigma Improvement Project conducted in 2014 in a private hospital in Nairobi, Kenya, the top seven medical insurance companies that contributed to 40% of the corporate insurance business rejected over 4% of their total claims amounting to Kenya Shillings 214 million over three years between 2011 and 2013. Even when claims are not disputed, the hospital usually experiences delays in reimbursement sometimes up to 45 debtor days which is above the 30 days period stated on the contractual agreement. The broad objective of this study was to find out factors influencing the payment of hospital claims by private insurance companies at a tertiary private hospital in Nairobi, Kenya. Specifically, this study sort to determine how hospital, private health insurance, and insured related factors influence reimbursement of hospital claims by the private insurance firms. **Methods:** This was a cross-sectional research design using a semi-structured questionnaire to collect data. Data was collected from 94 staff members who were initially stratified by job category and thereafter randomly selected within each strata. Data was analyzed using SPSS version 24. **Results:** Hospital related factors positively and significantly influences the reimbursement of hospital claims by private insurance firms ( $r = .548, P < .001$ ); ( $\beta_1 = .269, P < .001$ ). Insurance-related factors positively and significantly influences the reimbursement of hospital claims by private insurance firms ( $r = .385, P < .001$ ); ( $\beta_2 = .226, P < .001$ ). Insured related factors positively and significantly influences the reimbursement of hospital claims by private insurance firms ( $r = .273, P = .008$ ); ( $\beta_3 = .245, P < .001$ ). The value  $\beta_0$  was also significant meaning that even without the three variables of interest in this study a certain minimum reimbursement will always exist. **Conclusion:** A continuous feedback to the employees on factors that hinder timely and full reimbursement and regular training of the employees on adherence to insurance protocol and guidelines will improve reimbursement rates. This will be further enhanced by Tailor-making the billing system to meet end users' needs and having strategies on effective dissemination of information to the health providers and the insured clients, automation of claim processes, Continuous policy education to the insured and Stakeholders relationship to be enhanced.

**Keywords:** Reimbursement of hospital claims, private health insurance, private hospitals, Kenya

## **Introduction**

Health financing pillar of any nation should ensure that its citizens get the health care attention they require promptly and at the same time being cushioned from financial disaster or hardship when they seek medical attention (WHO, 2007). Good health systems can accomplish these using different approaches, among which is the use of health insurance schemes. When properly administered, health insurance plays an important role in increasing access and equity; in addition, when properly controlled, may be one way to move towards prepayment and risk pooling until publicly funded coverage can expand sufficiently (Sekhri, N., & Savedoff, W., 2006). In Kenya, the health care financing system has developed over the years into a mixed health care financing system whose main components include: General tax financing, National Hospital Insurance Fund, Private Health Insurance, Community Based Health Financing schemes, Out of Pocket health spending and development partners and Non-Governmental Organizations (Deloitte, 2011).

Despite the positive aspect of health insurances, literature has recorded a number of challenges health providers are facing in their interaction with health insurance. The Kenyan private health sector has progressively grown to be a critical stakeholder in the financing and delivery of health care services. According to the Ministry of Health 2012 – 2013, over half of all health facilities in Kenya are private, and 40% of all health spending occurs in private facilities. In recognition of this important role, the Government of Kenya has developed strategies to develop the private health sector in its Vision 2030. At a private tertiary hospital in Kenya, 69% of internally generated funds came from reimbursement of hospital claims by private health insurances (Aga Khan University Hospital, 2016). Despite the elaborate claims management process put in place, the hospital has experienced repeated reimbursement challenges ranging from delay in payment of hospital claims to rejection of hospital claims by the health insurances. Between 2011 and 2013, the top seven health insurance companies that contributed to 40% of corporate insurance business rejected over 4% of their total claims, amounting to over Kenya Shillings (KES) 214 Million (Aga Khan University Hospital, 2014).

Even when claims are not disputed, the hospital usually experiences delays in reimbursement of up to 45 debtor days which is 50% above the 30 days period stated on the contractual agreement. This is a major challenge that can cripple efficient health service delivery due to unpredictable cash flow. At times, a standoff arises between the hospital and the medical insurances due to the rejected claims and delayed reimbursement leading to termination of credit facilities to the insured members. This has negative repercussions on the health system whereby the population, which is insured, is not able to access health care and/or may be impoverished since they have to pay out of pocket. The objectives of this study were to establish hospital, private health insurance and insurance-related factors that influence claims reimbursement.

## **Methods**

### **Research Design**

This was a cross-sectional research design conducted at a private hospital in Kenya. The hospital generates about 4,000 invoices daily and of these, 2,760 (69%) invoices are for the private health insurance companies.

### **Sampling Procedure**

The study used stratified sampling. The population of this study was put into different strata based on different departments involved in claims management within the hospital. From each strata, a simple random sampling method was used to determine the sample population for staff from each of the department. The staff included all permanent employees in the hospital. The study used Yamane's Simplified Sample Formula for proportions which is suitable for small populations  $n=N/(1+N(e^2))$ . The study sample was composed of 94 staff members from the hospital who were directly concerned with the claims management process.

### **Data Collection Procedures**

This study used a Likert based psychometric questionnaire containing closed-ended questions with one open-ended question allowing the respondents to include their opinions. A pretest of the research instrument was conducted at a private hospital in Kisumu to preview the success likelihood of the study. Identical questionnaires were given to similar respondents on two separate occasions to measure the reliability of the tools. A reliability coefficient of 0.7 was achieved upon the correlation of the responses on the two separate occasions. The study used a drop and pick later method of data collection. The respondents were given one week to respond to all questions after which the researcher collected all the finished questionnaires. The data was collected during the month of February and March 2017.

### **Data Analysis**

Statistical Package for Social Sciences (SPSS) Version 24 was used to analyze the quantitative data. The qualitative data was analyzed using computer-aided content analysis. The test statistics used were, Pearson's Rho (r), mean-scores and the corresponding p-value. Where the p-value was below 0.05 the study concluded that there was scientific statistical significance. The mean score above 3.4 indicates agreement while those below 3.4 indicated disagreements in the statements of interest.

### **Ethical Considerations**

The researchers obtained permission from Kenya Methodist University Scientific Research and Ethics Committee, the hospital's Scientific Research and Ethics Committee and the National Commission for Science, Technology and Innovation. Informed consent was also obtained from the respondents and all information collected remains confidential.

## Results

### Demographic Characteristics of the Respondents

The demographic characteristics of the respondents are shown in **Table 1**.

**Table 1: Demographic Characteristics of the Respondents (n=94)**

Characteristics	Respondents N (%)
<b>Gender</b>	
Male	33(35.0)
Female	61(65.0)
<b>Age in Years</b>	
21-25	11(11.7)
26-30	27(28.7)
31-35	17(18.1)
36-40	20(21.3)
41-45	12(12.8)
46-a50 and above	7(7.5)
<b>Level of Education</b>	
Certificate	10(10.6)
Diploma	40(42.6)
Degree	44(46.8)
<b>Years of Service in the Hospital</b>	
< 2	15(16.0)
3-5	33(35.5)
6-8	15(16.0)
9-11	11(11.7)
>12	20(21.3)
<b>Department Worked</b>	
Radiology	11(11.7)
Pharmacy	6(6.4)
Rehabilitation	3(3.2)
Patient service	42(44.7)
Laboratory	9(9.6)
Entitlement	3(3.2)
Dispatch	15(16.0)
Cooperate Team Leads	5(5.3)

Most of the respondents had a university degree 44 (46.8%). This was followed by those who had diploma accounting for 40 (42.6%) and lastly, certificate holders accounted for 10(10.6%). Only 4 (4.3%) of the respondents had a postgraduate degree. Analysis of departments where the respondents worked revealed that 42 (44.7%) were from patient services department, 15 (16.0%) were from the dispatch department, 11 (11.7%) from the radiology department, 9 (9.6%) were from the laboratory department, 6 (6.4%) from Pharmacy, 5 (5.3%) were from corporate leadership, and 3(3.2%) were from rehabilitation.

The majority of the respondents were from patient services department which forms the backbone of the claims management department at the hospital. The majority of respondents had over five years of work experience in the hospital and therefore understood the hospital's claims reimbursement processes well.

### **Hospital Financial Claims Reimbursement**

Based on hospital financial claims reimbursement the study respondents agreed that, the claims vetting by private health insurance companies result in a delay in reimbursement, that there are bureaucracies in claims reimbursement process aimed at delaying payment, and the rejected claims are as a result of wrongly filled insurance forms. Further, the respondents implied that the reimbursement to the hospital was not done on a timely basis or in full (See **Table 2**).

**Table 2: Respondents' Opinions on Claims reimbursement**

<b>Statement</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
Insurance companies all times do a timely reimbursement to our hospital	94	2.6064	.89464
A number of claims forwarded to PHI every month do not pass for payment	94	3.3936	.91837
The insurance companies at all times give genuine reasons for delayed payment	94	2.7872	1.03563
The insurance always responds on time on all preauthorization request	94	2.7979	1.11278
A number of claims rejected by the PHI are not settled despite the reconciliation meetings	94	3.3830	.80464
Rejected claims are as a result of wrongly filled insurance forms	94	3.5699	.99343
Claims vetting by the PHI results in delays in reimbursement	94	3.6383	.97110
The use of manual transactions is the main reason for the delay in claims reimbursement.	94	3.2128	.87832
There is a lot of bureaucracy in claims reimbursement process aimed at delaying payment	93	3.5699	.99343
All the insurance companies intentionally delay payment to health providers	94	2.9043	.98449
The hospital sometimes submit bills with gaps to the insurance companies	94	3.1489	1.06718

### **Influence of Hospital-Related Factors on Claims Reimbursement**

The respondents were asked questions on three main indicators; claim management, human resources and technical factors (**Table 3**).

**Table 3: Respondents' Opinions on Hospital Related Factors**

<b>Statement</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
Our employees keenly verify information on eligibility of every patient for treatment	94	4.5426	.66664
Employees take a keen interest in whether a patient ailment is covered or not	94	4.4149	.75362
Clients membership is promptly uploaded on the database and kept up to date	92	4.2065	.74918
Staff are trained internally on Private Health Insurance claims management procedures	94	3.4787	1.12383
All the claims forms are properly filled by the attending doctors	94	2.1064	1.15955
Patient information in all the claim forms are clearly written	94	3.3106	1.44956
The exclusions are well mapped in the system and cannot be missed	92	2.6522	1.10923
All bills are usually vetted before submission to the insurance	94	4.1170	.78776
The hospital always has adequate employees to manage the insurance claims	94	3.3511	1.44956
All the staff involved in the claims management process have the relevant skills and competence	93	3.8280	1.06958
All the employees dealing with claims management are well motivated	94	2.6809	1.10923
Feedback is always given to the appropriate department on the reasons for rejected claims	94	2.4468	1.27180
The hospital always do accurate recording and monitoring of claims dispatched	94	3.3894	.94465

The respondents agreed that all financial bills are usually vetted before submission to the insurance companies. However, the respondent disagreed that “all the claims forms are properly filled by the attending doctors” and that “all the claim forms are clearly written”. This was further emphasized by the respondents in the opinion question where they said that details on the claims forms do not tally with drug prescriptions or investigations ordered and that documentation was a major issue. Results show that there were mixed reactions on the steps of the claims management process which ultimately affects reimbursement. It seems that documentation was the biggest challenge in ensuring accurate claim processes.

Responses on human resource factors showed that most respondents were keen to verify information on eligibility of every patient for treatment and employees take keen interest to check whether a patient ailment is covered under the insurance premium or not. However, the respondents disagreed that, all the employees dealing with claims management were not well

motivated and that feedback was not always given to the appropriate department on the reasons for rejected claims. From the opinion question, the respondent commented that “claims that have been rejected by the private health insurance are not returned to them for rectification”.

The respondents agreed that the clients’ membership details are promptly uploaded on the database and kept up to date, however, the respondents disagreed that the exclusions were not well mapped in the system and therefore could be missed. This was further re-emphasized by the respondents in the opinion question where they suggested that the hospital should make sure all exclusions are clearly mapped in the systems.

### **Influence of Health Insurance Related factors on Claims Reimbursement**

Health insurance-related factors play a major role in the reimbursement process because they are the ultimate decider on whether the claims are settled on time, delayed or rejected altogether. The researchers assessed three variables namely, claims processing, information dissemination, and financial factors. The respondents agreed that claims processing can be laborious leading to delay in reimbursement and that the manual nature of claims processing by private health insurance cause delays in reimbursement. The respondents attributed the laborious processing to manual nature of claims processing which negatively affects timely reimbursement to the health providers as most claims are not electronically submitted by the healthcare providers (See Table 4).

Information flow between the insured, health provider and health insurance is a key component in the claims reimbursement process. The respondents agreed that information regarding insurance cover exclusions by various private health insurance is always provided to the health provider. However, the information provided by health insurance companies regarding exclusions in health policies is not specific and that regular training is not carried out by private health insurance companies to health providers to ensure adherence to claims management requirements. From the opinion question, it was evident that most insurance companies do not communicate clearly to the health providers on details of exclusions where the exclusions are ambiguous.

The respondents agreed that cash flow problems within the insurance companies always affect reimbursement to hospitals and that all private health insurance companies closely monitor the insured members’ usage to avoid exceeding the set limits. In addition, it was reported that not all private health insurance companies provide convincing reasons for partial payments of claims.

**Table 4: Respondents' Opinions on Health Insurance Related Factors**

Statement	N	Mean	SD
All claims processing can be laborious leading to delay in reimbursement	94	3.9896	.82710
All PHI usually provides convincing reasons for partial payment of claims	94	2.9574	1.09657
There is an effective networking system between the hospital and the PHI that facilitate online transactions	94	3.2872	1.16048
Regular training is carried out by PHI to the Health providers to ensure adherence to claims management requirements	94	3.0106	1.09244
All PHI closely monitor the insured cover usage to avoid exceeding limits	94	3.6277	1.15455
PHI usually conduct a regular audit on operational processes with the aim of improving claims management	94	3.1277	1.00786
Information in regard to cover exclusions by the various private health insurance company is always provided to the hospital	93	3.6774	1.00175
Cash flow problems within the insurance always affect reimbursement to hospitals	94	3.6383	.97110
The systems always prompt the hospital staff when patients cover limit is exceeded	94	3.3511	1.34170
All the claims are electronically submitted to PHI	94	2.5745	1.23122
Private health insurance companies always fail to timely provide information on client's insurance validity	94	2.8723	1.21136
The information provided by private health insurance companies regarding exclusions in health policy is specific	93	3.1828	1.22427

**Influence of Insured Related factors on claims reimbursement.**

The respondents were asked questions on three main indicators: Knowledge on health policy cover, personal information, and integrity (See **Table 5**). The respondents agreed that most clients are only offered services for which they are covered but not all clients were aware of their cover benefits, exclusions or were conversant with the cover limits. Further clients were not always conversant with the pre-authorization requirements.

From the study, it can be concluded that the health insured clients do not fully understand the various health policy covers and this affects their claim reimbursement either directly or indirectly. In the open-ended question, the respondents suggested that the private health insurance companies introduce new guidelines to the hospital on scheme administration rules to educate the insured members on their insurance benefits.



**Table 5: Respondents' Opinions on Insured Related Factors**

Statement	N	Mean	SD
Most clients are only offered services for which they are covered	94	3.9362	1.13411
Clients at all times seek preauthorization from the health insurance for services as required	93	2.8817	1.32574
A number of clients use shortcuts to defraud the system and get treatment	94	2.9362	1.17142
Some clients with expired cards are offered services	94	2.7872	1.26042
A number of the insured clients present incorrect information to the hospital leading to rejection of claims	94	3.4447	1.12383
All the insured clients are aware of their cover benefits with the insurance companies	94	2.2979	1.18076
All clients are always aware of their cover exclusions	94	2.0319	1.04163
All clients are always conversant with the preauthorization requirements	93	2.2151	1.15955
Clients are always conversant with the cover limits and strive not to exceed the limit	94	2.3191	1.27180
All clients are cooperative when signing the claims forms	93	3.4398	1.15621
Clients always give accurate personal information consistent with the health policy cover	94	3.2872	1.16048
All clients exercise a high degree of honesty on the ailment while seeking services	94	2.9894	1.11196

The respondents agreed that a number of the insured clients present incorrect information to the hospital leading to rejection of claims thus not all clients exercise a high degree of honesty on ailments while seeking services and that clients do not always give accurate personal information consistent with the health policy cover. The respondents agreed that most clients are only offered services for which they are covered. However, it is clear that the hospital has put measures in place to avoid fraud by the insured. Hospital employees keenly verify information on eligibility of every patient for treatment.

### **Bivariate Linear Correlation Analysis**

To determine whether each of the independent variable in this study, hospital-related factors ( $X_1$ ), insurance-related factors ( $X_2$ ) and insured related factors ( $X_3$ ) influences the insurance reimbursements ( $Y$ ), a bivariate linear correlation analysis was carried out. The results for each variable in this study are given by the Spearman's Rho ( $r$ ) and its corresponding  $p$ -value. If the  $p$ -value is less than 0.05, then the relationship is statistically significant (**Table**

6). The study revealed that hospital factors ( $X_1$ ) have a positive and significant influence on reimbursements of hospital claims by private health insurances ( $r = .548^{**}$ ,  $P < .001$ ).

**Table 6: Bivariate Linear Correlation**

		Reimbursement	Hospital	Insurance	Insured
		Factors	Factors	Factors	Factors
Reimbursement	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	94			
Hospital Factors	Pearson Correlation	.548**	1		
	Sig. (2-tailed)	.000			
	N	94	94		
Insurance Factors	Pearson Correlation	.385**	-.036	1	
	Sig. (2-tailed)	.000	.734		
	N	94	94	94	
Insured Factors	Pearson Correlation	.273**	-.141	-.203*	1
	Sig. (2-tailed)	.008	.176	.050	
	N	94	94	94	94

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

The study also found a positive and significant influence of the insurance-related factors ( $X_2$ ) on the reimbursement of hospital claims by private health insurance firms ( $r = .385^{**}$ ,  $P < .001$ ). Insurance companies, sometimes, do not process payments in a timely manner due to various factors specifically related to the operations and management of insurance companies. The study found out that factors such as the “laborious and manual nature of claims processing” and “lack of proper dissemination of information to both the hospital and insured” affect reimbursement.

The bivariate linear correlations analysis also revealed that there is a positive and significant influence of the insured related factors on the reimbursement of hospital claims by private health insurance firms ( $r = .273^{**}$ ,  $P = .008$ ). The study found out that lack of knowledge on insurance policy benefits, lack of knowledge rules and regulations of the insured policy documents affect reimbursement either directly or indirectly. The findings in this study indicated that compared to the other two key independent variables influencing reimbursements of hospital claims, hospital-related factors had the strongest and significant influence on reimbursement of hospital claims by private health insurance firms.

## Discussion

Based on hospital financial claims reimbursement, the results of this study show a similar trend like a study done by Bhat, et al., (2005) where the hospitals under study reported that the insurance companies always delayed payments. Similarly, a study by Stevenson, et al., (2012) showed that the health insurance companies did not reimburse the Nursing Home all

the claims,. The percentage of rejected claims ranged from 14% to 19% between 2006 and 2010 with a slight increase in the recent years. There is a delay in reimbursement of financial claims in private hospitals and therefore, hospitals should minimize bureaucracies in claims reimbursement process to reduce the payment delays.

The findings on claim management show a similar trend as those found by Atinga, R.A., et al., (2012). The findings revealed that poorly written patient data like etiology of the disease and treatment plan, often increased turnaround time for claims processing, since those vetting claims use a lot of time to interpret what is written to ensure that they don't pay claims which are not eligible for payment. In addition, Stevenson, D. G., et al., (2012) revealed that reimbursement was declined or delayed due to missing or invalid information in the insurance document. This study findings also agree with Sakyi, E.K., et al., (2012) that, poorly written claim forms by medical personnel, errors pertaining to the wrong diagnosis and prescriptions resulted into claims being rejected or payment delayed because the documentation had to be rectified by the health providers. In addition, results from this study concur with findings from Sodzi-Tettey, S. et al., (2012), who found that the reimbursement was often delayed or declined because claims forms were sparsely filled leaving out important information like claim number and the type of procedures done.

Unlike the study by Atinga, R.A., et al., (2012) which revealed that poor management of claims by the hospitals was brought about by a lack of staff with knowledge on claims management, this study showed that the respondent had knowledge on claim management process and that the respondents were also keen to follow claims management processes procedures. The staff dealing with claims management are knowledgeable and competent in their work but the lack of motivation, may cause staff not to appreciate what they do and subsequently results in poor performance (Casto, A.B., & Layman, E. 2006). In addition, when staffs are not given feedback on the rejected bills and the reason for rejection, the same mistakes will continue to be made. This study shows a similar trend like the study done by Sakyi, E.K. et al., (2012) which showed that employees were not given feedback on rejected or partially settled claims and this made the same errors to be repeated and subsequently affecting reimbursement.

This study concurs with Sodzi-Tettey, S. at et., (2012), and Stevenson, D.G. et al., (2012) who found that lack of proper mapping of health insurance treatment guides, insurance drug list and list of exclusions into the billing systems resulted in the insured being offered services which were later declined.

Findings on claim processing are in line with the studies done by Atinga, R.A. et al., (2012) who attributed the delay in reimbursement to claims processing procedures. The study showed that most of the health providers submitted claims manually and subsequently the processing of the claims by health insurances was also done manually. The manual methods led to delays, inaccuracies, loss of documents and absence of tracking. The results concur with a study by General, A. (2008) on the performance audit report, which showed that delays of claims reimbursement to health providers was due to challenges in claims

processing. Similarly, a study by Sodzi-Tettey, S. et al., (2012), found that 50% of the claims could not be reimbursed within the contractual agreement of 28 days because the manual nature limited the speed of claims processing.

Even though the private health insurance sends the exclusions to health providers, lack of regular training on the details of exclusions always lead to misunderstanding and ambiguity during billing. These findings are in line with the study by Atinga, R.A. et al., (2012), which showed that lack of providers understanding of the insurance protocols or difficulty of interpretation of reimbursement system resulted in rejections of claims. In addition, the study agrees with Huskamp, H.A. et al., (2010), who found that lack of continuous and proper information exchange between the health insurance and health providers often results in delay in reimbursement and rejections of claims. The health provider requires clear information on insured benefits, what is included in the cover and what is excluded, client's limits and up to date database on client's validity status to enable the institution prepare accurate claims which are within the limits provided in the health policy AHIP Center for Policy and Research, (2013). Unlike the study done by Amo, H.F, (2013), which showed that health insurances regularly meet health providers to train them on claims management procedures, this study showed that regular training by private health insurances was not being done to hospitals on the procedures for making 'Clean' claims.

The findings on cash flow in this study agreed with Atinga, R.A., et al., (2012) and Amo, H.F, et al., (2013), who stated that one of the factors that delayed reimbursement was cash flows problems. Also, the studies concur with Sodzi-Tettey, S. et al., (2012) and Dalinjong, P. A., and Laar, A. S. (2012), which showed that health providers were not convinced of the reasons given by health insurances for partial payment.

These results on knowledge of health policy cover concurs with a study done by Bhat, R., et al., (2005), Witter, S., and Garshong, B. (2009) which showed that, policyholders have inadequate knowledge of illness covered in their policies, claims limits and also exclusions in their policies. Changes in the health insurance cover policies in a given period of time and lack of adequate knowledge could be a contributing factor to the inadequate knowledge by policyholders. On personal information, this study concurs with a study by Dalinjong, P. A., and Laar, A. S. (2012), which showed that the insured presented themselves to the health facility with minor ailments and gave false information in order to collect drugs for their uninsured relatives or friends. Sakyi, E.K. et al., (2012) showed that clients with the expired card were offered services by the health providers. This study differs with these findings as the hospital employees ensured that this did not happen. The findings in this study indicated that compared to the other two key independent variables influencing reimbursements of hospital claims, hospital-related factors have the strongest and significant influence on reimbursement of hospital claims by private health insurance firms. The hospital-related factors have been identified by the literature as one of the key variables influencing reimbursements of hospital claims by private health insurances (Sodzi-Tettey, et al. 2012; Bhat, et al., (2005; Sayki, et al. (2012; Ankomah, 2009 and Martin, (2011). The implication here is that as the hospitals improve the internal mechanisms in claims management;

technical and human resources, there will be a significant positive change in the insurance reimbursement.

### **Conclusion**

This study found statistical and significant evidence that the hospital, private health insurance, and insured related factors, in a combined relationship, significantly influenced the reimbursement of hospital claims by private insurance firms at a tertiary private hospital in Kenya.

The claims management process, mapping of exclusions, and feedback to the hospital employees on rejected claims is a major problem in hospital-related factors that affect reimbursement. Lack of effective dissemination of information to both the hospital and the insured, lack of continuous training to health providers on health insurance policy benefits and any other claims management requirements to ensure providers submit 'clean claims' that does not need rectification and resubmissions, and manual processing of claims are the main factors affecting claims reimbursement. Inadequate knowledge of illness covered in their policies claims limits, and also exclusions in the insured policies documents affects claims reimbursement.

### **Policy implications:**

- i. The hospital management should provide continuous feedback to the employees on factors that hinder timely and full reimbursement of financial claims.
- ii. The hospital should conduct regular training to the employees on adherence to insurance protocol and guidelines.
- iii. The hospital should tailor the billing system to end users' needs.
- iv. Both the insurance firms and the hospital should equip and update the insured with adequate knowledge of their health insurance policy benefits and all the rules and regulations of their policy.

### **Competing Interests**

The authors declare that they have no competing interests.

### **Authors Contributions**

Eddy Miriti developed the research idea. All authors contributed to the design of the study, data analysis, and manuscript writing. All the authors reviewed and approved the final version of the manuscript.

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