

Performance based financing and job satisfaction in a semi-urban health district in Cameroon

Léon Jules Owona Manga,¹

André Arsène Bita Fouda,¹

Lucien Mbida,¹ Come Ebana Mvogo^{1,2}

¹Faculty of Medicine and Pharmaceutical Sciences, The University of Douala; ²Faculty of Medicine and Biomedical Sciences, The University of Yaoundé, Cameroon

Abstract

The performance based financing approach is being tested in four regions of Cameroon, including the Littoral region. Our study aimed to study the effects associated with the implementation of the performance based financing approach within the health facilities based in the health district of Edea in the Littoral region in Cameroon. We've carried out a cross-sectional analytical study among 178 health personnel from 21 health facilities under PBF-contract within the health district of Edea. We have studied their socio-demographic characteristics, the individual and collective effects resulting from the performance based financing subsidies and the level of job satisfaction. Participants' job satisfaction was measured with the French version of the Minnesota satisfaction scale. The results were presented in a descriptive and analytical form at the $\alpha = 5\%$ and the P-value 5% . We recruited 113 women and 65 men. The mean age was 39.19 ± 8.95 years. The individual results of the performance based financing were the regular collection of subsidies between F CFA 20-40.000 (42.1%), the improvement of working conditions (74.2%) and living conditions (67.4%) and the acquisition of new skills (69.7%). Collectively, participants confirmed the increase of the users attendance (65.7%), the improvement of the internal organization (79.8%), the purchase of new equipment (84.3%) and the improved quality of health care (86%). Satisfaction is influenced by age ($P=0.016$), gender ($P=0.01$), occupational category ($P=0.04$), type of health facility ($P=0.02$) and the amount of subsidies ($P=0.03$). The healthcare personnel's were satisfied with the improvement of their social conditions (66.67%), working conditions (62.88%), the transparency in health centers management (69%) and their involvement

in the health centers' functioning (76.6%). Participants were dissatisfied with their salaries (70.2%) and the lack of opportunities for advancement (47.8%). The positive effects of the performance based financing approach contributed to the job satisfaction of the healthcare workers in the Edea health district. These results should prompt the government to extend the performance based financing approach to communities and other health districts in Cameroon.

Introduction

Health systems in the french-speaking sub-Saharan countries are affected by many factors such as the lack of human resources, the poor quality of delivery system and insufficient funding.¹ The use of performance-based financing (PBF) was adopted to solve these issues. PBF is an innovative financing approach that was created in the early 1970's in the US education sector to support the improvement in academic results.² The PBF approach was later extended to other professional sectors and other countries.² In the health sector, its implementation was triggered by the repeated failures of several reforms and the malfunctions observed in public health systems of some countries.³ The PBF is an efficient tool used to improve the quality and quantity of health services; it provides healthcare workers with various types of incentives for the improvement of their self-performance and the overall performance of the health workforce. In pioneering settings such as Cambodia and Rwanda, performance-based financing programs have improved health services more rapidly than other reform approaches in the same countries.⁴ In Haiti, the PBF improved the immunization coverage in the 1990s,⁴ while in Cambodia, there was an increase of the services attendance and incomes over a period of five years.⁵ In the African countries using the PBF approach, sustainable improvements have been observed in the attendance at health services and the quality of services offered to the users.⁶ In Cameroon, the PBF is in the experimental phase in the Littoral, East, Northwest and Southwest regions. Some researches were conducted on the PBF since it was introduced in 2008. The authors noted some positive changes deriving from the PBF methods on the overall services organizational system and health care,^{7,8} or the improvement on the quality of users care-taking at the level of external consultations, maternity, laboratory, talk less of the real impact on the use of

Correspondence: Leon Jules Owona Manga, Faculty of Medicine and Pharmaceutical Sciences, The University of Douala, P.O Box : 2701 Douala, Cameroon.

Tel.: + 237.677.779121.

E-mail: owonaspinkier@yahoo.fr

Key words: PBF, healthcare workers, job satisfaction, health district, Cameroon.

Acknowledgments: the authors express their fully gratitude to the health authorities and health personnel's of Edea Health district for their active participation In this study.

Contributions: LJOM is the 1st originator of the study. He participated to all the phases of the study, from the design to the writing of this manuscript; ABF is the 1st contributor of the study. He contributed during the whole and especially during the data analysis and the writing of this manuscript. CEM is the study advisor. He contributed during all the phases. LM was in charge of field data collection, data analysis and the issue of the 1st draft.

Conflict of interest: the authors declare no potential conflict of interest.

Funding: none.

Received for publication: 9 August 2017.

Accepted for publication: 1 December 2017

This work is licensed under a Creative Commons Attribution NonCommercial 4.0 License (CC BY-NC 4.0).

©Copyright L.J. Owona Manga et al., 2018

Licensee PAGEPress, Italy

Journal of Public Health in Africa 2018; 9:760

doi:10.4081/jphia.2018.760

services.⁸ The positive results deriving from the implementation of the PBF could have positive effects at the level of the individuals and boost their performance and their job satisfaction. But, no study tackled the question of job satisfaction of the healthcare personnel who are the front liners of the qualitative and quantitative changes in the offer of health care. Job satisfaction represents the extent to which expectations are and match the real awards.⁹ In this study, we aimed to analyze the individual and collective effects of the PBF incentives among to healthcare personnel of the semi-urban health district of Edea in the Littoral region. Precisely, we will describe their socio-professional characteristics, the results derived from the PBF, measure the level of job satisfaction, identify the satisfaction factors and measure the strength of the relation between job satisfaction and deriving effects of the PBF.

Materials and Methods

Study settings

This cross-sectional study was carried out from January 15th till April 15th, 2015 in the various health centers (HC) of the semi-urban health district of Edea. This health district is located in the Sanaga Maritime subdivision in the Littoral region of Cameroon. Its population is estimated around 150.629 inhabitants. Concerning the HCs, 21 out of 30 HC contracted a PBF contract with to the autonomous financing agency of the Littoral region. There were thirteen public HC, seven religious HC and a single private HC.

Population of study

The population of study was composed of all the health personnel's of HCs of the health district of Edea who owned a PBF-contract. The sampling method was consecutive and the participation was voluntary. Fully-employed healthcare personnel with more than 6-months seniority and having received PBF subsidies were considered. Other participants such as newly assigned health personnel's and those who had never collected PBF-subsidies were not considered.

Data collection and analysis

To start the data collection, we first obtained an ethical clearance and a research authorization from the Regional Delegate of the Ministry of Public health in the Littoral region. The aim, objectives and benefits of study were explained to the participants to obtain their informed consent. The interviews were conducted using a mixed questionnaire to collect the socio-professional characteristics of the participants (age, gender, marital status, seniority and professional status), the PBF-subsidies effects and the level of job satisfaction. After collecting the completed questionnaires from the participants, these questionnaires were entered into the CsPro 5.0, and then transferred to SPSS 21.0 sheet for further analysis. The analysis was descriptive and analytical. We assessed each participant job satisfaction using the french version of the Minnesota satisfaction scale that was created in 1967 by Weiss¹⁰ and translated into french by Roussel in 1994.¹¹ The MSQ is a 5-point Likert type scale with 20 items (1: *very dissatisfied with this aspect of my job*, 2: *dissatisfied with this aspect of my job*, 3: *can't decide if I'm satisfied or dissatisfied with this aspect of my job*, 4: *satisfied with this aspect of my job* and 5: *very satisfied with this aspect of my job*). The MSQ comprises 5 distinct facets of satisfaction that are the

intrinsic satisfaction, the extrinsic satisfaction (feelings about situational job aspects, external to the job), social authority and usefulness, the need for recognition through wage and promotion, the moral value of an individual and employment stability. The overall satisfaction score was obtained by summing the items results of all the participants and compared to the general average obtained which were 66.14. A participant was classified as "*Satisfied*" if his/her rate was above the general average; otherwise he/she was "*Unsatisfied*". The association between the PBF-subsidies induced effects and the job satisfaction was measured using the Khi-2 test, with an error threshold $\alpha=5\%$ and a confidence interval equal to 95%. The results were considered significant for $P<5\%$.

Ethical considerations

The study was conducted in a strict alignment with the national and international fundamental ethical principles for research in human health. We have obtained an ethical clearance no CEI-UD/82/02/2015/T issued by the Institutional Ethical Committee of the University of Douala. The rights of participants, their dignity, privacy and confidentiality of individual data were protected during and after the study.

Results

Socio-professional characteristics

The answer rate was 79.1% (178/225). Female outnumbered the sample with 113 women (63.5%) and 65 men (36.5%), which means a gender rate of 1.7 in favor of women. The mean age of participants was 39.19 ± 8.9 years with the extremes at 21 years and 57 years. The most represented age group was 30-39 years (38.2%). The

majority of participants (57.3%) were married and 42.7% were single. Participants were working in public HCs (74.2 %), secular private HCs (13.5%) and confessional private HCs (12.4 %). The sample comprised 78 nurses (43.3%), 41 nurse-aids (23%), 31 laboratory technicians (17.4%), 21 medical doctors (11.8%) and 7 midwives (3.9%). Average professional seniority was 6.04 ± 6.6 years with extremes at 7 months and 31 years.

The PBF induced effects

The PBF subsidies

The number of PBF subsidies received by participants varied: 61 (34.3%) had received less than 10 times, 43 (24.2%) had received less than 20 times, 15 (8.5%) received less than 30 times and 22 (12.4%) had perceived more than 40 times. A quarterly PBF subsidy was a surplus income between 20 to 40 thousand CFAF for 75 participants, between 40 to 60 thousand CFAF for 29 participants and less than 20 thousand CFAF for 27 participants. These subsidies represented a salary increase of less than 20% for 101 participants, 20 to 40% for 69 participants, 40 to 60% for 7 participants and 60 to 80% for a single participant. The distribution of participants according to the quarterly PBF subsidies is illustrated in Figure 1.

Other PBF induced effects

The main effects induced by the PBF implementation are illustrated in Table 1 below. At the HCs level, it was the purchase of new equipment's (84.3%), the improved quality of healthcare for the users (86%), improved internal organization of the HCs (79.8%) and the increase of users attendance (65.7%). At the individual level, participants declared and improvement of their working conditions (74.2%), the acquisition of new skills (69.7%) and the

Table 1. The performance based financing (PBF) induced effects at the Health Centres (HCs) and participants level.

PBF induced effects	(n)	(%)
At the HC level		
Purchase of new equipment	150	84.3
Improved quality of healthcare of the HC	153	86.0
Improved internal organization of the HC	142	79.8
Increase of the users attendance at the HC	117	65.7
Participation in decision-making process	94	52.8
Restoration of HCs	100	56.2
Transparency in HC management	100	56.2
Construction of new buildings	45	25.3
At the participants level		
Improvement of the working conditions	132	74.2
Skills acquisition	124	69.7
Improvement of the living conditions	120	67.4
No change in workload	96	53.9

improvement of their living conditions (67.4%).

Job satisfaction

Job satisfaction prevalence

The overall satisfaction rate was 53.4%. The distribution of job satisfaction varied with occupational category as illustrated in Figure 2.

Job satisfaction factors

These factors were studied through the various components of job satisfaction facets. The average intrinsic satisfaction was at 24.20 ± 3.6 ; above the general average. It was mainly related to the sense of self-fulfillment (82.6%), opportunities to work differently (64.6%), the possibility to work permanently (62.9%) and the possibility of working according to one's own methods (62.9%). In addition, the intrinsic satisfaction also rested on the possibilities of autonomy at work (44.9%), the possibilities of carrying out certain tasks with one's own capabilities (44.9%) and the room for decision-making at work (44.9%). The external satisfaction was at 22.63 ± 4.4 , above the general average. It was related to a feeling of professional upgrade (66.8%), compliments for a job well done (50%), and the way they were administered by their supervisors (39.3%). However, they were vague about the quality of relationship between colleagues (43.8%), the implementation of internal procedures of the HC (43.8%), the technical skills of the supervisors in decision-making process (42.1%) and the quality of the working conditions (39.9%). The satisfaction related to social authority and usefulness was linked to the possibilities to lead work activities (71.9%) or opportunities to assist colleagues (61.8%). Satisfaction related to the need for recognition and existence

through the wage and promotion was negative. Participants were unhappy with the salaries received compared to the tasks performed (70.2%) and with the opportunities for professional development (47.8%).

We found positive associations between the general satisfaction with the other variables of the study, such as age ($P=0.016$), the gender ($P=0.01$), the amount of PBF-subsidies ($P=0.03$), the professional category ($P=0.04$) and the type of HC ($P=0.02$). Thus, the medical specialists were more satisfied (100%) than nurses (39.02), while the job satisfaction was found high in peripheral public HC (68.75%) than in the public hospitals (44.57%).

Job satisfaction and PBF induced effects

The relationship between job satisfaction and the PBF induced effects is illustrated in Table 2. The association between the general satisfaction and the PBF induced effects was studied at the HCs

level and at the individual level. At the HC level, the association was significant between satisfaction and all the PBF induced effects ($P=0.00$), except for the construction of new buildings ($P=0.73$). At the individual level, satisfaction was significantly associated with knowledge acquisition and the improvement of working conditions ($P=0.00$). But it was not associated with the increase of workload ($P=0.20$).

Discussion

Study limits

Despite all the difficulties encountered in carrying out field investigations and particularly the access to certain enclosed HCs, we obtained a high participation rate (79.1%). Our study is the very first one in Cameroon to study the job satisfaction characteristics among health workers in a context of PBF implementation.

Table 2. the general satisfaction and the performance based financing (PBF) induced effects induced effects.

PBF induced effects	General satisfaction, %	χ^2	P
At the level of HCs			
Purchase of new equipments	60.00	16.84	0.00
Improved quality of care of the HC	56.90	5.33	0.00
Improved internal organization of the HC	59.15	9.43	0.00
Increase of the number of users at the HC	65.00	18.41	0.00
Participation in decision-making	76.60	43.17	0.00
Construction of new buildings	55.56	0.12	0.73
Restoration of HCs	61.00	5.33	0.02
Transparency in HC management	69.00	23.31	0.00
Recruitment opportunities	54.50	0.29	0.59
At the participants level			
Skills acquisition	58.06	3.51	0.05
Increase of workload	58.54	1.63	0.20
Improvement of work conditions	62.88	18.55	0.00

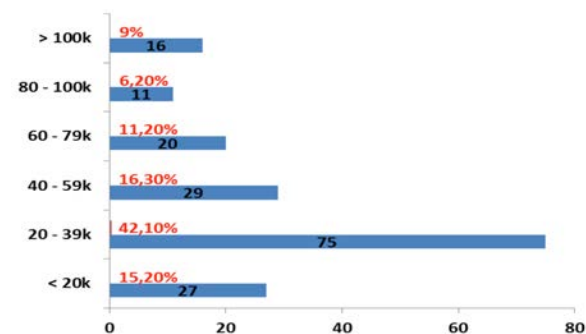


Figure 1. Distribution of participants according to the PBF subsidies received quarterly.

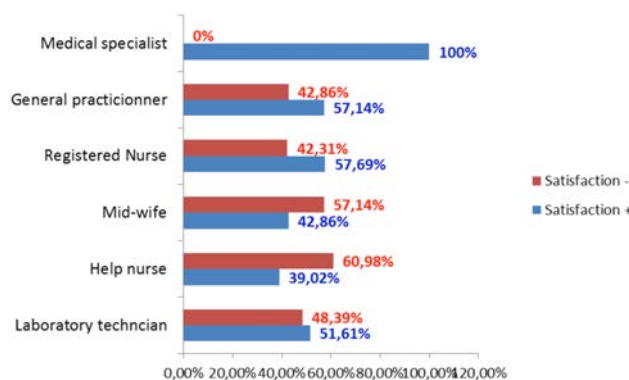


Figure 2. Distribution of job satisfaction per occupational category.

Comparison of results

Socio-demographic characteristics

The predominance of female in the sample (113/178) is higher than their representativeness among the health human resources in Cameroon, composed of 53.5% men and 46.4 women.¹² However, our data confirm the ongoing feminization process of health human resources observed in some African cities like Bissau, Praia and Maputo.¹³ In industrialized countries, women outweighed among medical doctors less than 40 years old,¹⁴ while in the United States the percentage of women among the new doctors graduating from US medical schools was at 45.7% in 2001-2002.¹⁵ The participants were young adults aged 39.19±8.9 years on average. Participants were married (57.3%) and the thirty-year-old was the modal class. The fact that participants are young is an advantage for the achievement of HCs objectives; because working under a PBF contract is not only incentive, but it requires more efforts to satisfy users' demands and increase the quantity of subsidies to be collected. The proportion of nurses is high (70.2%); this is one of the results of the implementation of an emergency plan for health human resources for the period 2006-2008 in Cameroon.¹² Seniority at the position contributes to the development of professional experience and quality care delivery to users. In our study, interviewees' professional experience was less than 10 years (70%) that is why the workforce had to be stabilize by improving living and working conditions in the HCs of this health district of the semi-urban area.

The PBF induced effects at the HC level

In the Edea health district, all PBF induced effects were significantly related to the general satisfaction, except the construction of new buildings ($P=0.73$) and the recruitment opportunities of new staff ($P=0.59$). The effectiveness of the PBF implementation in a HC is measured by the ability to incur additional resources to improve the way it functions on one hand, and the living and working conditions of the staff on the other hand. Problems of poor governance emerge in the functioning of health districts in Cameroon.⁸ In the Edea health district, the main issues were functional and organizational; hence the use of the PBF approach to revitalize the HCs concerned and the health system in general, using financial incentives.^{7,8} Our results reveal that the PBF has contributed to the implementation of a participative management of the HCs, characterized by the implication of the personnel to decision-making ($P=0.00$), implying more

transparency ($P=0.00$) and organizational improvement ($P=0.00$). On the other hand, the participants noted the improvement of their working conditions ($P=0.00$) combined with the acquisition of new equipment ($P=0.00$), repairs in the HC ($P=0.00$) and the use of HCs ($P=0.00$). But these results remain fragile, because they depend on external financing that has a time limit. As a result, the government is working on a national sustainable strategy of the PBF so as to extend the results to all the populations, as it was the case in Burundi and Rwanda.⁶ The revision of the current national health policy and the adoption of a new health policy focusing on the decentralization of services and management autonomy will be a prerequisite for the success of the PBF approach at the national level.⁶ The positive impact of the PBF approach is not indisputable in some countries, but contradictory results of the indicators have often been observed in the same country or between different health districts of the same country. The main positive outcomes were observed for indicators related to use of HCs, quality of care, maternal and child health and immunization programs.^{6,16,17} Other outcomes were noted such as increase in admissions, bed occupancy and rate of external consultations, while the number of discharge among admitted patients had decreased between 1996 and 2002.¹⁸ In Burundi, an increase in the quality of healthcare and use of maternal and child health wards between 2000 and 2012 was observed, while a national policy of essential medicines was established in 80% of the HCs following the implementation of the PBF in China.¹⁸ In the Democratic Republic of Congo, the PBF contributed to the reduction of project operating costs from 28% to 9% between 2005 and 2011, the improvement of health system coordination which saved US \$ 56 million, and reduced staff congestion in hospitals permitting to comply with national standards of human resources.¹⁸

The PBF induced effects on individuals

The interviewees reported an improvement in their working conditions and the reinforcement of their technical skills which were significantly associated with the general satisfaction. However, the understanding of the PBF induced effects must always be relativized because it is linked to the intrinsic and extrinsic aspects of work.⁶ In Cambodia, focused actions on health human resources had increased the level of professionalism among workers in terms of services reorganization and the optimization of resources use based on of

their actual qualifications.⁵ The comparison of the subsidy amounts revealed differences between the results of our study and those obtained in Cambodia between 1996 and 2002. In the district of Takreo, the average proportion of individual PBF subsidies was valued at 45% at the beginning of the program, then stabilized around 34% in the subsequent years.¹⁸ In the health district of Edea, the PBF-subsidies amounts varied from one individual to the other; the main beneficiaries, that is 101 participants, received less than 20% of wage surplus and 69 individuals received between 20-40% of wage surplus per quarter. In the DRC, the salaries of health personnel had increased from 20 to 90 euros for Nurses and from 50 to 230 euros for Medical Doctors.¹⁸

Job satisfaction

The majority of the participants were satisfied with the PBF incentives, with an overall satisfaction rate of 53.4%. Our results confirm those of Njoumeme and Fadimatou whose study revealed that actors of the PBF in Cameroon had a positive insight of this approach. According to them, the PBF has contributed to the reinforcement of the health system by the improvement of monitoring and evaluation, a better quality care and caretaking offered.⁷ The professional dimension of satisfaction was related to the participants' professional value, while the intrinsic dimension resulted from the positive social consideration they had in the community. Actually, formal employment is scarce in the Edea town and job opportunities are mainly found in the informal/unofficial sector, small business and agriculture; because the city's sole industry only offers specialized opportunities in electricity and industrial maintenance. Despite the increase in activity rate in the HCs, activities were performed autonomously and with a decisional latitude, hence the continued satisfaction. These are good approaches for the prevention of occupational hazards. The indecision of the interviewed staff in relation to interactions between colleagues (43.80%) revealed a tense social climate in the HCs. Such situations arise when there is frustration and social atmosphere degradation among colleagues. Participants were unhappy with the salaries received compared to the tasks performed (70.2%) and lack of promotion opportunities (47.8%). Low wages had also been reported by Owona *et al.* for health personnel of a public hospital in Yaounde in 2013.¹⁹ In the event of difficult working conditions when salaries are insufficient, it can affect the motivation and job satisfaction, and lead to job rotation or intention to resign as

observed in Ghana.²⁰ On the other hand, poor working conditions can also encourage bad practices, stimulate social claims. This is the case of Cameroon where the Medical Doctors' Union calls for better working conditions, better salaries for health personnel and a universal health insurance for all. In Nigeria, the hard working conditions of healthcare staffs have triggered repeated strikes between 2010 and 2016.²¹ In Ethiopia in 2011, the satisfaction rate observed among JIMA hospital staff was lower than that of our study (41.4%) and the main reasons for satisfaction were the fact of *being useful to users* (90%) and *work-related bonuses* (63.3%). For unhappy personnel (46.2%), low salaries between 1000 and 2000 Birr (25.000-51.000 FCFA), professional seniority between 6 and 10 years and the job of laboratory technician were the main dissatisfaction reasons.²²

In our study, the significant association of satisfaction with age ($P=0.016$), gender ($P=0.01$), professional category ($P=0.04$) confirms that satisfaction can be influenced by Intrinsic or extrinsic factors.²³ It is justified by the characteristics of the population studied where women were more represented and non-medical personnel whose activity in the HC is not the only source of income. In fact, they have other income-generating activities that they do during their free hours or after duty hours.¹⁹

Conclusions

Our results confirm the satisfaction of the health personnel following the implementation of the PBF in the Edea health district. The regular payment of subsidies has contributed to the improvement of socio-professional conditions of health personnel. The work environment has been improved, new equipment has been purchased, the HCs are better managed and staff living conditions are improved. This approach should be sustained by the government in order to maintain a continuous provision of quality and quantitative services in peripheral HCs and limit referrals to HCs at the central level.

References

1. Performance Management Consulting

(PMC). La santé en Afrique subsaharienne: panorama, problématiques, enjeux et perspectives 2010:1-15.

2. Fond mondial de lutte contre le sida la tuberculose et le paludisme. Financement basé sur la performance. Available from: <http://www.theglobalfund.org/fr/about/grantmanagement/pbf/>.

3. Sekaganda E, Habaguhirwa BJ, Hanbinez C. Santé et performance au Rwanda : Expérience et leçons du niveau opérationnel dans la mise en œuvre de l'approche PBF. Kigali: Cordaid-sina; 2008.

4. Eichler R, Auxila P, Uder A, Desmangles B. Performance-Based Incentives for Health: Six Years of Results from Supply-Side Programs in Haiti. April 6, 2007. p 1-35. Available from: www.cgdev.org

5. Barber S, Bonnet F, Bekedam H. Formalizing under-the-table payments to control out-of-pocket hospital expenditures in Cambodia. Health Policy Plan 2004;19:199-208.

6. Toonen J, Canavan A, Vergeer P, Elovainio R. Performance-based financing for health: Lessons from sub-Saharan Africa. Royal Tropical Institute, Cordaid and the World Health Organization. Amsterdam: KIT Publishers. 2009. p 1-77.

7. Njoumeme Z, Fadimatou A. Financement basé sur la performance pour le suivi-évaluation du système de santé au Cameroun. Afr Eval J 2002;1:22,

8. Zang O, Djienuouassi S, Sorgho G, Taptue JC. Impact of performance-based financing on health-care quality and utilization in urban areas of Cameroon. In: African Health Monitor. Special Issue on Universal Health Coverage. Issue 20. October 2015. p 10-4.

9. Aziri B. Job satisfaction: a literature review. Manag Res Pract 2011;3:77-86.

10. Weiss DJ. Manual for the Minnesota Satisfaction Questionnaire. Rehabilitation, Minneapolis: University of Minnesota, industrial relations center. Vol. 22, Minnesota studies in vocational. 1967.

11. Roussel P. Analyse factorielle de second ordre : méthode de validation de construit générique. 2002. pp 295-304.

12. Ministère de la Santé Publique. Politique, planification des RHS et situation des effectifs. In: Analyse de la situation des ressources humaines pour

la santé au Cameroun. Août 2010. pp 70-96.

13. Russo G, Gonçalves L, Craveiro I, Dussault G. Feminization of the medical workforce in low-income settings; findings from surveys in three African capital cities. Hum Res Health 2015;13:64.

14. McKinstry B, Colthart I, Elliott K, Hunter C. The feminization of the medical work force, implications for Scottish primary care: a survey of Scottish general practitioners. BMC Health Serv Res 2006;6:1-8.

15. Barzansky B, Etzel SI. Medical schools in the United States, 2006–2007. JAMA 2007; 298:1071-7.

16. Eichler R, Auxila P, Uder A, Desmangles B. Performance-Based Incentives for Health: Six Years of Results from Supply-Side. Programs in Haiti. April 6, 2007. pp 1-35. Available from: www.cgdev.org

17. Barber S, Bonnet F, Bekedam H. Formalizing under-the-table payments to control out-of-pocket hospital expenditures in Cambodia. Health Policy Plan 2004;19:199-208.

18. Yip W, Hafez R. Reforms for improving the efficiency of health systems: lessons from 10 country cases. In: Improving Health System Efficiency. Available from: www.who.int/topics/health_systems/en/.

19. Owona Manga LJ, Kouassi Yao M, Bitou Fouda AA, et al. Conditions sociales et professionnelles des personnels de santé dans un hôpital public de Yaoundé, Cameroun. Rev Int Sci Med 2015;17: 60-65.

20. Bonenberger M, Aikins M, Akweongo P, Wyss K. The effects of health worker motivation and job satisfaction on turnover intention in Ghana: a cross-sectional study. Hum Res Health 2014;12: 43.

21. Adeloye D, Adedeji RD, Olaogun AA, et al. Health workforce and governance: the crisis in Nigeria. Hum Res Health 2017;15:32.

22. Semachew A, Belachew T, Tesfaye T, et al. Predictors of job satisfaction among nurses working in Ethiopian public hospitals, 2014: institution-based cross-sectional study. Hum Res Health 2017; 15:31.

23. Scheurer D, McKean S, Miller J, Wetterneck T. US Physician Satisfaction: A Systematic Review. J Hosp Med 2009;4:560-8.