



# Assessing User Satisfaction with the Quality of Healthcare Services in Cameroon

*Aloysius Mom Njong and  
Rosy Pascale Meyet Tchouapi*

July 2020 / No. 672

## Abstract

This study aims to evaluate user satisfaction with, and perceptions about the quality of the healthcare services provided in health facilities in Cameroon. The analyses make use of the 2010 Quantitative Service Delivery Survey (QSDS), jointly carried out by the World Bank and the National Institute of Statistics in Cameroon. Confirmatory factor analysis is used to test the reliability and validity of the research instruments and hence facilitate the ranking of satisfaction indicators. We use ordered probit modelling to identify the covariates of user satisfaction. Results indicate that over 85% of users are satisfied with the overall quality of healthcare services in the country. There are some concerns about

such dubiously high individual-level response rates, which are inconsistent with the poor reputation of the quality of healthcare services in Cameroon. It also emerges from the study that age, educational status and waiting time are prominent covariates of satisfaction. The major policy recommendation is that an exit user satisfaction survey should be conducted to reduce the approval response biases observed in the 2010 QSDS data.

## Background and context

Cameroon is subscribed to the Primary Health Care convention, which is aimed at making quality health services more accessible to people. In line with this approach, the country's health system is organized in the form of a pyramid that is composed of three structures. At the top is the Ministry of Public Health (MoPH), which is responsible for formulating national health policies. Further down the pyramid, at the intermediate level, are 10 regional health delegations, which coordinate and implement health strategies at the regional level. At the bottom of the pyramid there are 154 health districts, which are the operational units carefully mapped out to improve accessibility to healthcare services (Ministère de la Santé Publique, 2011).

Despite the efforts by government to enhance good governance and improve the performance of the health system, bad governance and corruption seem to be issues in the Cameroon economy, including in the health sector. For example, the mid-term evaluation of the 2001–2015 Health Strategy that was aimed at promoting good governance in the health sector was deliberately aborted (Ministère de la Santé Publique, 2009). There are several forms of unethical practices in public health facilities. For example, it is common for healthcare workers to ask for payments from users for services that are officially free of charge (e.g., mosquito nets and HIV screening) or subsidized. Most doctors in public health facilities run private clinics. This practice promotes absenteeism in public health facilities and contributes to diverting public health centre users towards private health clinics where the medical personnel are more readily available. It is perhaps because of these malpractices that Transparency International (2006) classified the health sector among the top sectors most affected by corruption in Cameroon.

Cameroonians are afflicted by common tropical illnesses and diseases such as malaria. About 50% of patients visit health facilities for the treatment of malaria, which represents the main cause of mortality in Cameroon (Antonio-Nkondjio et al., 2012). The main way of contracting malaria is from mosquito bites, who breed in swamps and stagnant water that are found in most areas of cities. Individuals in Cameroon do not readily take part in health insurance schemes, and therefore must make out-of-pocket payments to meet the cost of treatment in case of ill health. This often leaves households with high financial burdens.

The ratio of population/physician is quite high in Cameroon. Available statistics show that the ratio increased from 10,084 to 14,418 people per doctor, and 2,249 to 2,545 people per nurse for the period 2004–2011 (Ministère de la Santé Publique, 2011). Perhaps this could be due to the lack of an appropriate human resource development plan in the health sector, as well as the massive outflow of medical personnel looking for greener pastures abroad.

The state of health facility hygiene and sanitation in Cameroon is worrisome. An *Institute Nationale de Statistique* (2010) report revealed that health facilities in Cameroon often experience power outages that may last from 10–16 hours. The same report indicated that only about 47% of health units have access to running water. One can therefore understand why wards in health facilities in the country are infested with ants, flies, cockroaches, and rats, who roam freely. The failure to maintain cleanliness and observe basic hygiene propagates cases of hospital-acquired infections, which in medical parlance is called nosocomial infections (Allegranzi and Pittet, 2007). These infections are diseases that health users may pick up during a visit to health facilities. Samuel et al. (2010) reported a hospital-acquired infection prevalence rate of 20% in 2010, and such infections are becoming a major consideration in public health policy. Lack of cleanliness may favour the outbreak of cholera and diarrhoea. Evidence from the World Health Organization (2013) reveal that during the period 2000–2011 Cameroon registered the highest cholera and diarrhoea prevalence rates in sub-Saharan Africa.

## Methodological literature review

Assessing the quality of healthcare delivery has been viewed from two different perspectives, which are discussed below.

### Quality as a comparison between expectations and performance

According to Lewis and Booms (1983) the quality of healthcare services is evaluated by comparing expectations with performance. This line of reasoning is supported by Grönroos (2000) and Tarantino (2004), who contend that users judge the quality of a service by comparing the service they expect with perceptions of the actual service they receive. Parasuraman and Berry (1988) view service quality as the degree and direction of the discrepancy between users' perceptions and expectations. They further suggest a service quality model, abbreviated as SERVQUAL, for evaluating service quality. In the SERVQUAL model, they identify five dimensions, namely: responsiveness, reliability, assurance, tangibles, and empathy on the basis of which users' expectations and perceptions are measured. According to Tam (2005) satisfaction of service quality is measured when users compare perceptions of

service with expectations. The initial expectations that users have about the quality of healthcare services act as a major indicator of satisfaction. If perceived care falls short of expectations, the likely outcome is that users are displeased with the service quality. Conversely, when perceptions meet or exceed expectations, the result is likely to be an increase in the level of satisfaction.

## **Quality as a multi-dimensional construct**

According to Donabedian (1980), the measurement of the quality of healthcare delivery systems is described in terms of “structure, processes, and outcomes.” Structure refers to the characteristics of the health facility setting in which medical care takes place. It includes tangible characteristics such as the cleanliness and sanitation of the physical facility, equipment, medical personnel, and communication material. Process indicators capture what is done during the delivery and receiving of healthcare. This includes users’ health-seeking behaviour as well as the physician’s activities in making a diagnosis and eventually implementing suggested treatment. Outcome indicators reflect the result of healthcare. They measure the actual impact of healthcare services on health.

According to Zeithaml et al. (1990) there are ten dimensions or evaluation criteria that patients use in assessing service quality. These include courtesy, access, communication, understanding, empathy, reliability, tangibles, responsiveness, competence, and assurance. Shi and Singh (2005) consider quality as an indicator of satisfaction that depends on two different aspects. First, it depends on a user’s experiences with some attributes of health service delivery such as comfort, dignity, privacy, security, degree of independence, decision-making autonomy, and attention to personal preferences. Second, it depends on the overall satisfaction of users with life, as well as self-perceptions of health after some medical intervention. In this study we adopt the approach conceptualized by Donabedian (1980, 2003) that describes quality dimensions as being either structural, procedural or outcome based.

## **Data and methodology**

The analysis in this paper is based on secondary data, commonly referred to as the 2010 Quantitative Service Delivery Survey (QSDS). The survey was jointly carried out in Cameroon by the World Bank and the National Institute of Statistics. We obtained the data from the National Institute of Statistics. The survey collected information on users’ judgement on satisfaction with settings and service delivery in health centres. The data were collected using questionnaires, which were administered to patients at the health facilities where they sought medical attention. The Institut Nationale de Statistique (2010) clearly describes the unit of observation in the QSDS to be the “household or the patient taken live in a health unit”.

Concerning the survey design, the country was stratified into 12 study survey regions, namely the 10 administrative regions of the country, while the towns of Douala and Yaoundé were considered separately as study areas. The survey involved both public and private health facilities to distinguish user appreciation of the quality of health services supplied by both these categories of service providers. A total of 515 users were interviewed using questionnaires.

## Conclusion and policy implications

The objective of this study was to assess user satisfaction with, and perceptions of the quality of healthcare services in Cameroon. Using confirmatory factor analysis, we established that the attitude of medical staff, and hygiene conditions and cleanliness are the best indicators of satisfaction because they have the largest factor loadings of 0.95 and 0.92, respectively. Thus, the user-practitioner relationship is the most important health service factor affecting satisfaction. Our results also show that levels of satisfaction/perception are generally very high, scoring above 85%. This happy picture is quite inconsistent with the poor reputation of the quality of healthcare services in Cameroon. This trend may be explained by the methodological issue of how satisfaction-related questions were asked (where and when) and the type of scale used to elicit responses. This study has also provided some evidence about the covariates of satisfaction. The regression results showed that age, educational status, and waiting time are covariates of satisfaction.

## Policy implications

Given the poor quality of the available data we are reluctant to make any policy recommendations other than those targeting data quality improvements. As reported earlier, collecting information from users at health facilities, when hospital administrators and medical personnel are present and are aware, they are being observed, will introduce acquiescence response biases on perception-based measures of quality. We strongly suggest that the World Bank and the National Institute of Statistics carry out another user-satisfaction survey (an exit survey) and target respondents for interview /questionnaire filling in social groups such as njangi/tontines, focus groups or at their individual homes. As it stands, the Cameroonian 2010 QSDS is of poor quality and does not reflect the true picture of user views about the quality of healthcare services in Cameroon.

## References

- Allegranzi, B. and D. Pittet. 2007. "Healthcare-associated infection in developing countries: Simple solutions to meet complex challenges". *Infection Control Hospital Epidemiology*, 28(12): 1323–7.
- Antonio-Nkondjio, C., B. Defo-Talom, R. Tagne-Fotso, B. Tene-Fossog, C. Ndo, L.G. Lehman, T. Tchuinkam, P. Kengne and P. Awono-Ambene. 2012. "High mosquito burden and malaria transmission in a district of the city of Douala, Cameroon". *BMC Infectious Diseases*, 12: 275. Available at <http://www.biomedcentral.com/1471-2334/12/275>, accessed 14/1/2015.
- Cameron, C. and P. Trivedi. 1986. "Econometric models based on count data: Comparisons and applications of some estimators and tests". *Journal of Econometrics*, 1(1): 29–53.
- Cortina, J.M. 1993. "What is coefficient alpha? An examination of theory and applications." *Journal of Applied Psychology*, 78(1): 98–104.
- Fitzpatrick, R. 1991. "Surveys of patient satisfaction I-important general considerations". *British Medical Journal*, 302: 887–9.
- Flora, D.B. and P.J. Curran. 2004. "An empirical evaluation of alternative methods of estimation for confirmatory factor analysis with ordinal data." *Psychological Methods*, 9(4): 466–91.
- Frimpong, O.N, S. Nwankwo and D. Baba. 2010. "Measuring service quality and patient satisfaction with access to public and private healthcare delivery". *International Journal of Public Sector Management*, 23(3): 203–20.
- Greene, W. 1993. *Econometric Analysis* 2nd edition. New York: Macmillan Publishing Company.
- Grönroos, C. 2000. *Service Management and Marketing – A Customer Relationship Management Approach*. Hoboken, NJ: John Wiley & Sons.
- Institut Nationale de Statistique. 2004. *Rapport Principal-Volet Santé: Première enquête sur le suivi des dépenses publiques et la satisfaction des bénéficiaires dans les secteurs de la Santé*. Yaoundé: Cameroun.
- Institut Nationale de Statistique. 2010. *Rapport Principal-Volet Santé: Deuxième enquête sur le suivi des dépenses publiques et la satisfaction des bénéficiaires dans les secteurs de la Santé*. Yaoundé: Cameroun.
- Kamgnia, D.B. 2008. *Distribution Impact of Public Spending in Cameroon: The Case of Health Care*. AERC Research Paper No. 179. African Economic Research Consortium, Nairobi.
- Kimenyi, M.S. and W.F. Shughart II. 2006. *Provider Competition, Marketization and the Quality of Public Service Provision*. AERC Collaborative Project on Service Delivery in Africa Framework Paper. African Economic Research Consortium, Nairobi.
- Lewis, R.C. and B.H. Booms. 1983. "The marketing aspects of service quality". In L. Berry, G. Shostack and G. Upah, eds, *Emerging Perspectives on Services Marketing*. Chicago, IL: American Marketing Association: 99–107.
- Miller, M.B. 1995. "Coefficient alpha: A basic introduction from the perspectives of classical test theory and structural equation modelling." *Structural Equation Modelling*, 2: 255–73.
- Ministère de la Santé Publique. 2011. *Plan National de Développement Sanitaire (PNDS) 2011 – 2015*. Yaoundé.

- Ministère de la Santé Publique. 2009. Document de stratégie sectorielle de la santé 2001–2015. Ministère de la Santé Publique. Yaoundé.
- Njong, M.A. and J. Ngantcha. 2013. Institutions and Leakage of Public Funds in the Cameroonian Healthcare Delivery Chain. AERC Collaborative Research Project. Nairobi, Kenya.
- Parasuraman A. and L. Berry. 1988. "SERVQUAL: A multiple item scale for measuring consumer perceptions of service quality". *Journal of Retail*, 64(1): 12–40.
- Samuel, S.O., O.O. Kayode, O. Musa, G.C. Nwigwe, A.O. Aboderin, T.A.T. Salami and S.S. Taiwo. 2010. "Nosocomial infections and the challenges of control in developing countries". *African Journal of Clinical and Experimental Microbiology*, 11(2): 102–10.
- Tam, J.L. 2005. "Examining the dynamics of consumer expectations in a Chinese Technologies". *Journal of Business Research*, 66(3): 98–111.
- Tarantino, D. 2004. "How should we measure patient satisfaction?" *Physician Executive*, 30(4): 60–1.
- Transparency International. 2006. Report on Corruption in Cameroon. Transparency International, Berlin Germany.
- World Health Organization. 2013. *Weekly Epidemiological Record*. 31(88): 321–36. Available at <http://www.who.int/wer>
- Zeithaml, A.V., A. Parasuraman and L.L. Berry. 1990. *Delivery Quality Service: Balancing Customer Perception and Expectations*. New York: Free Press.



## Mission

To strengthen local capacity for conducting independent, rigorous inquiry into the problems facing the management of economies in sub-Saharan Africa.

The mission rests on two basic premises: that development is more likely to occur where there is sustained sound management of the economy, and that such management is more likely to happen where there is an active, well-informed group of locally based professional economists to conduct policy-relevant research.

[www.aercafrica.org](http://www.aercafrica.org)

## Learn More



[www.facebook.com/aercafrica](https://www.facebook.com/aercafrica)



[www.instagram.com/aercafrica\\_official/](https://www.instagram.com/aercafrica_official/)



[twitter.com/aercafrica](https://twitter.com/aercafrica)



[www.linkedin.com/school/aercafrica/](https://www.linkedin.com/school/aercafrica/)

## Contact Us

African Economic Research Consortium  
Consortium pour la Recherche Economique en Afrique  
Middle East Bank Towers,  
3rd Floor, Jakaya Kikwete Road  
Nairobi 00200, Kenya  
Tel: +254 (0) 20 273 4150  
[communications@ercafrica.org](mailto:communications@ercafrica.org)