

# Analysis of quality indexes of the provided health services in public and private services of Angola

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DOI: <http://dx.doi.org/10.7322/jhgd.119280>

## Abstract

**Introduction:** Quality indices are being increasingly used by leaders, managers and health professionals as operational tools to improve processes and reduce costs. Noting that there is a greater tendency of private hospitals operating in the regulatory model for market mechanisms, it is expected that the quality indicators that serve as a reference for monitoring the health management are more critical in public hospitals.

**Objective:** Evaluate the quality of health services provided in public and private service in Angola.

**Methods:** We analyzed 142 patients of a public and a private institutions in Angola in a structured interview on health indicators. The indices were collected according to the process structure components and results.

**Results:** There are 51,453 calls in the public institution, remaining hospitalized a day, an average of 184 patients, with an annual rate of bed occupancy of 90.84%. 50% of respondents praised the services and 22% complained about the quality of services. He was appointed as the main grounds for complaint the slow service (17%). The private institution received 2,222 patients, with an average of 570 patients. The mean hospital stay was 4.5 days. The average monthly rate of bed occupancy was 59.9%. In assessing the degree of satisfaction of care, regular or bad satisfaction obtained a rate of 60% in the private institution.

**Conclusion:** There was no favorable results for quality in health management both in public service and in private.

**Key words:** health management, quality of health care, health care evaluation.

## INTRODUCTION

The national health system in Angola passed by a historical evolution characterized by two distinct periods: the colonial and post-independence periods<sup>1</sup>. The colonial period was characterized by a health system accessible to a privileged minority, targeted at solving their health problems and affecting the economic productivity of the colonia<sup>2</sup>.

From the introduction of political, economic and administrative reforms made in Angola, the Act No. 21-B/92, of 28 August stands out among them, the law Bases of the National Health System that says that the State has

no longer exclusivity in health care, with the legalization of the private sector. Was also introduced the notion of co-participation of citizens in health costs, maintaining the free and universal system<sup>1,2</sup>.

The system of health care delivery stratifies into three hierarchical levels of provision of services, based on the Primary Health Care (PHC) strategy<sup>1,3</sup>. The primary-level - Primary Health Care (PHC) - represented by stations, health centers, municipal hospitals, nursing stations and doctors' offices, is the initial point of contact with the health system. The secondary or intermediate level, represented by general hospitals, is the reference level for first-level units. The tertiary level, represented by referral

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**Suggested citation:** Vicente MTC, Raimundo RD, Azzalis LA, Junqueira VBC, Fonseca FLA. Analysis of quality indexes of the provided health services in public and private services of Angola. *J Hum Growth Dev.* 26(2): 228-233. Doi: <http://dx.doi.org/10.7322/jhgd.119280>.

**Manuscript submitted:** Mai 18 2016, accepted for publication Jun 14 2016.

hospitals mono or multipurpose, differentiated and specialized, is the reference level for secondary-level health units<sup>1-3</sup>.

Despite this clear hierarchy, the reference system has not been operational for several factors, mainly because of the disruption of the health care system and reducing health coverage arising from the long conflict that Angola lived<sup>1,2</sup>.

It is estimated that only about 30 to 40% of the Angolan population have access to health services. The public and private sectors make the provision of health care. The public sector includes the National Health System (NHS), the health services of the Angolan armed forces and the health services of the Ministry of the Interior - this sector remains as the main provider of health services at the national level, sharing with other service providers, the same difficulties of health care delivery without the desired quality in most cases, despite the progress lately recorded<sup>3-5</sup>.

The co-participation health costs in the public sector was recognized as a barrier to access to health care and to fairness. Therefore, the lucrative private sector is confined to major urban centers of the country and is sluggish at the tertiary level, with prices that limit the accessibility of the population. Similar to what happens in the public sector, the quality of private services are still lagging behind. Mostly, the functionalism of the private sector is the same as working in the public sector, with obvious damage to both. However, it is not known whether there are differences between the sectors with regard to the contents of management<sup>2,5-7</sup>.

In the World Health Organization's perspective, the quality of health care is based on a set of elements that include a high degree of professional competence, efficiency in the use of resources, minimal risk, a high degree of patient satisfaction and a favorable effect on health<sup>8,9</sup>.

Quality management concepts were developed in the industrial context, initially from American thinkers. According to Norman<sup>10</sup>, the idea of measuring the quality of health services began to be developed in the 1960 decade, by Donabedian<sup>11,12</sup>, at the University of Michigan (USA). Donabedian<sup>12</sup> launched an evaluation methodology and qualification with regard to structure, process and results in health services. "The quality criterion is nothing more than value judgment", said this author. The definition of quality in health "reflects the current values and goals of a particular health system and society as a whole of which it is part"<sup>12</sup>.

The indexes are usually defined as numbers that measure the relative variation of a quantity between two different situations, in time and space, or compare situations observed with those expected, being one of those situations taken as reference or basis for calculating<sup>13</sup>. Are basic tools for managing organizational system, that is, measures used to help describe the current status of the given phenomenon or problem, making comparisons,

check changes or trends and assess the implementation of the planned actions for a period of time, in terms of quality and quantity of health actions performed. Vaz<sup>14</sup> says that the indicators can be simple or compound.

Noting that there is a greater tendency of private hospitals operate in market regulation model, quality indexes, which serve as reference for the monitoring and evaluation of health management, are more critical in public institutions, with greater dependence on State resources than in private. Having as its mission producing best quality care possible at the lowest cost, the health system has a doubt about the quality of care. Therefore, the objective of this study is to evaluate the quality on health management of Angola, comparing a public and a private.

## METHODS

This is an observational, descriptive and transversal study of quantitative and qualitative approach held in public and private institutions in a municipality of the city of Luanda. The public institution studied was the motherhood Lucrecia Paim - specialized in women and neonate through preventive and curative services - located in the municipality of Ingombotas (Luanda, Angola). The private institution studied was the Sunflower clinic, located in the municipality of Maianga (Luanda, Angola).

This research was approved under the number 213/2013 Research Ethics Committee (REC) of the Faculdade de Medicina do ABC. After the individuals signed an informed consent (TFCC), a structured interview with open and closed questions on health indicators was used.

The contents were collected from face-to-face interviews with patients that happened in the period of 02/23/2012 to 02/11/2013, obtaining permission for getting the data according to the components of structure (human resources, occupied beds and the ones available); of process (time of unoccupied beds, number of hospital-acquired infections, patients treated in each unit per day, month and year and stay of hospitalization for specialties) and outcomes (patients who performed clinical/surgical treatment, total of hospital discharge in the institution and attendance satisfaction).

The questionnaire contained 28 opened questions with the following doubts: "are you satisfied with the service at the hospital?"; "How many patients are serviced on each drive per day?"; "And every day of the month?"; "And in the year 2013?"; "How many days patients remain hospitalized?"; "How many beds are occupied by day each month?"; "How many beds are in each hospital unit?"; "How many time the beds remain unoccupied by day?"; "How many beds will remain available to patients in a day?"; "How many patients have high in each hospital a day?"; "What is the total number of discharges in the institution?"; "How many deaths occur per day?"; "How many hospital discharges occurred per

\* In the mid-20<sup>th</sup> century, the values embedded in the Hippocratic Oath were endorsed and reaffirmed in the Declaration of Geneva adopted by the UN 2<sup>nd</sup> General Assembly in 1948 and amended several times, most recently in 2006. Later, the Declaration of Helsinki adopted in 1964 and revised several times, most recently in 2013, set the standards for medical research ethics. Both documents, while not legally binding instruments under international law, contain ethical principles guiding healthcare professionals worldwide.

day?"; "How many patients had clinical/surgical treatment performed by day?"; "Medical supervision was conducted?"; "How many medical shifts were carried out per week?"; "How many medical visits were made a week per patient?"; "How many cesarean sections were performed per day?"; "How many cesarean sections were performed per month?"; "What is the total number of births?"; "How many employees the hospital unit has?"; "How many employees were let go a day?"; "How many employees were hired by day?"; "How many employees lacked a day?"; "How many hours employees lacked a day?"; "How many accidents at work occurred per day of each month of 2013?"; "How many hours of training employees had per day?"; "How many cases of hospital infection in bloodstream occur per day?" and "What is the hospital mortality rate?".

Data were collected and tabulated in a spreadsheet in Excel software. They were analyzed using descriptive statistics, reported in absolute frequency, relative frequency and average.

**RESULTS**

The main features of public and private service in Angola are presented in table 1. The public institution studied has an average of 141 patients treated daily, 4,287 monthly and 51,453 annually. By day, 184 patients on average remain hospitalized, 5,617 per month and 67,479 per year with an annual occupancy rate of beds 90.84%. An average of 147 patients have discharge daily, and 4,476 monthly. The replacement interval of unoccupied beds is 0.13 days. The total of 41 surgeries are performed daily, 256 monthly and 15,076 yearly. In 2013, 21 caesarian sections were performed per day, 642 per month and 7,713 per year and there were 469 cases of nosocomial infection in bloodstream. In this hospital, the supervision is performed daily by the Clinical Director. An medical

shift is made in each 4 days. Each patient receives a medical visit per day.

The information was collected in the period from 2/23/2012 to 2/11/2013, and provided by the Information Sector. The total 142 patients were interviewed. Half of those surveyed praised the public service. The total of 28% did not make comments, and 22% complained about the services quality. Key reasons of complaints are: time-consuming attendance (17%); absence of more humane care in the treatment; delay in meeting the urgent bank (8%); Lack of humanism in emergency bank; small room (8%); Information Sector with no chairs to accommodate the escorts; delay in providing information to family members; lack of cleaning in the bathrooms of the patients (8%); lack of restaurants (3%); lack of ramp and slippery waiting room (3%).

The particular institution has a hospital stay with 22 operational beds, intended for the reception of patients of gynecology and obstetrics aspects. Pregnant women with pregnancy-related pathologies are admitted in the individual or collective rooms or in isolation rooms (a bed with air renewal system for HEPA filters). For those who have recently given birth the same concept is followed. At hospitalization are interned in different rooms who have recently given birth, pregnant women and patients with gynecological problems. When there is need for hospitalization in intensive care, the woman who has recently given birth or patient with gynecologic problems is hospitalized in intensive care for adults (Table 1).

The specialties of Gynecology and obstetrics received in the year under review 2,222 patients, with a monthly average of 570 patients. The total of 1,623 patients were hospitalized, with a monthly average of 135 patients. The average time of hospitalization is 4.5 days. The average monthly rate of occupancy of beds is 59.9%. In the same specialties, the replacement range is 3 days (Table 1).

**Table 1:** Public and private services characterization in Angola

	Public Institution	Private Institution
Attendance numbers		
Monthly average	4.287 patients/month	570 patients/month
Annual average	51.453 patients/year	6900 patients/year
Specialties	Gynecology and Obstetrics Neonatology	Gynecology and Obstetrics Neonatology
Hospital stay		
Monthly average	5617 patients/month	135 patients/month
Annual average	67479 patients/year	1623 patients/year
Annual occupation tax	90.84%	59.9%
Changeover time	0.13 days	3 days
Surgeries number		
Monthly average	256 surgeries/month	190 surgeries/month
Annual average	15076 surgeries/year	2274 surgeries/year
Hospital infections		
Annual tax	0.9%	1.9%
Patients average (year)	469	131

This private institution works with 88 doctors per day, 39 health technicians and 20 administrative and technical support workers. The index of hour/man/training established contractually is 4 hours a week, which are part of the workdays of all workers.

In the hospital that was carried out during the period under study, 1.614 surgical interventions in the main block were made, with a monthly average of 135 acts, and 660 surgeries. The procedures performed by the gynecology were 4.5%, in the main surgical block.

There has been a gross annual rate of 1.90% hospital infections, with a monthly average of 0.15%. Were 203 deaths

in the hospitalization of gynecology and obstetrics occurred in January 2013, with a monthly average of 17 deaths (Table 2).

The praise, expressing satisfaction or thanks for services rendered were only 15%. The degree of satisfaction “excellent” offers a reduced rate of only 7%. The degrees of “very good” and “good” had 33% of responses. There is prevalence of responses indicating the degree of satisfaction “regular” and “bad” of 60%. Complaints or reports of dissatisfaction in relation to actions and health services, recorded mainly through face-to-face care, were 26%. All requests or application for access to health actions and services accounted for 14%. Suggestions for improvement accounted for 32% (Table 2).

**Table 2:** Evaluation of the quality of public and private service in Angola

	Public Institution	Private Institution
Service quality	50% Excellent 00% Good and Very Good 22% Regular and Bad 28% not commented	07% Excellent 33% Good and Very Good 60% Regular and Bad 00% not commented
Complaint reasons	Time consuming attendance Not humanized attendance Small attendance room Delay on giving information to familiars Lack of cleaning in the bathrooms	Time consuming attendance Not humanized attendance Delay on giving information to familiars

**DISCUSSION**

This research aimed to evaluate the quality levels in the management of health of Angola, comparing public and private hospitals. It began with a search context, where a framework of the health sector in the country was made. To support the research, was offered a literature on hospital management, its origin, as well the introduction of indexes of quality in healthcare management.

From the perspective of Borba and Grandson<sup>15</sup>, are the expansion of healthcare systems and the increasing complexity of care that have strengthened the importance of a more effective management of the resources sector and the quality of care. In addition, the growth in demand for health services, the increased costs and restrictions, in addition to the constant changes in clinical practice have expanded the interests of various Nations for the monitoring of health services. It is admitted that have still been adapted to the health area, different techniques and tools, often used in the industrial sector<sup>16-18</sup>.

Our results show 50% positive rating on public institution of Angola. Although half of respondents praising the institution, believe that this fact can be explained due to the low purchasing power<sup>3,4</sup> of the population of Angola, being difficult to people who can only use the public service compare with some better quality service.

Studies<sup>19-23</sup> show that one can use the corporate strategic analysis to improve health planning. Berwick<sup>17</sup>, giving concrete examples of the use of traditional tools of quality, supports this view when he says that “it is possible to adapt the concepts of quality used in the industry for the health sector with some ease”. The results proved being favorable for private institution and not to the public

institution. Both of them have pointed out many situations where performance is below the requirements of total quality, lack of effort in quality management.

In general, the quality evaluation is performed looking measure structural conditions of services, since the physical parameters, license, and/or equipment performance, D’Innocenzo, Adami and Cunha<sup>19</sup> defended. Other ways to accomplish the evaluation are process indicators, tasks or sensitivity function specification of medical care and appropriate therapeutic indication and application. According to Donabedian<sup>24</sup>, the notion of structure, process and result can be adapted to hospital attendance.

The “structure” component corresponds to relatively stable and required the assistance process, covering the physical area, human resources (number, type, distribution and qualification), material and financial resources, information systems and regulatory technical-administrative instruments, political support and organizational conditions. The “process” component corresponds to the provision of assistance according to technical and scientific standards established and accepted in the scientific community about a particular subject and the use of resources in its quantitative and qualitative aspects. Includes the recognition of problems, diagnostic methods, diagnosis and care. The “results” component corresponds to the consequences of activities in health services, or by the professional in terms of changes in the health conditions of the patients, considering also the changes related to knowledge and behaviors, as well as user satisfaction and the worker attached to the receipt and provision of care, respectively<sup>24-26</sup>.

Although there are a number of difficulties to assess quality in the health area, there is a unanimity

among managers that it is necessary to choose the evaluation systems and adequate institutional performance indicators to support the administration of services and provide decision making at the lowest degree of uncertainty<sup>24,25,27</sup>.

An indicator can be defined as a sensor that helps to verify that the proposed objectives were achieved or not. The creation of indicators is extremely important for the evaluation of the quality, as it provides a measure and allows the monitoring and the identification of opportunities for improvement of services and positive changes in relation to the scope of quality at a reasonable cost<sup>24,25,27</sup>.

However, the design of this study does not allow a generalization of the evidence found. Even with half of the respondents satisfied, the public institution showed better technical efficiency than the private institution.

Finally, we conclude that there was no favorable results for the quality of provided health services in both the public and private services. The organization of the health system in Angola is relatively recent, the evaluation of the same in public and private is something not much explored, and realizes the need to promote management tools to ensure improvements in global health services.

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## Resumo

**Introdução:** Índices de qualidade estão sendo cada vez mais utilizados pelos líderes, gestores e profissionais de saúde como ferramentas operacionais para melhorar os processos e reduzir custos. Observando que há uma maior tendência dos hospitais privados que operam no modelo regulatório para os mecanismos de mercado, espera-se que os indicadores de qualidade que servem de referência para o acompanhamento da gestão da saúde sejam mais críticos em hospitais públicos.

**Objetivo:** Avaliar a qualidade dos serviços de saúde prestados no serviço público e privado em Angola.

**Método:** Foram analisados 142 pacientes de um hospital público e uma instituição privada em Angola, em uma entrevista estruturada sobre os indicadores de saúde. Os índices foram obtidos de acordo com os componentes da estrutura de processo e resultados.

**Resultados:** Não são 51,453 chamadas na instituição pública, permanecendo internado por dia, uma média de 184 pacientes, com uma taxa anual de ocupação cama de 90,84%. 50% dos entrevistados elogiaram os serviços e 22% queixaram-se da qualidade dos serviços. Ele foi apontado como o principal motivo de reclamação o serviço lento (17%). A instituição privada recebeu 2.222 pacientes, com uma média de 570 pacientes. O tempo médio de internação foi de 4,5 dias. A taxa média mensal de ocupação cama foi de 59,9%. Na avaliação do grau de satisfação do atendimento, regular ou ruim, a satisfação obtida foi uma taxa de 60% na instituição privada.

**Conclusão:** Não houve resultados favoráveis para a qualidade na gestão da saúde, tanto no serviço público como no privado

**Palavras-chave:** gestão de saúde, qualidade dos cuidados de saúde, avaliação de saúde.