



## ASSESSMENT OF THE E EXISTING PUBLIC HOSPITAL FACILITIES CONDITIONS FOR SUSTAINABLE PERFORMANCE AT ELELE- ALIMINI AND ISIOKPO GENERAL HOSPITAL, RIVERS STATE, NIGERIA

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### ABSTRACT

The relationship between the state of facilities in a building and their functionality for sustainable service delivery is imperative in general hospital. However, the state of infrastructure and/or facilities in the public hospital in Nigeria is observed to be in a deplorable condition, thereby deterring sustainable service delivery in general hospitals. Therefore, the study investigated the conditions of existing public hospital facilities in Rivers State, Nigeria, using the cases of Elele-Alimini and Isiokpo General Hospital. The total existing hospital facilities in both hospitals were studied, where a total number of 130 questionnaires designed in a Five Likert Scale were retrieved from residents and staff living within the hospitals areas and used for analysis. The Results from the data analysis revealed that the existing facilities are in poor/disrepair conditions. It further revealed that there is an absence of sustainable performance of services delivery since the facilities are in disrepair situation. Again, the finding indicates that lack of professional maintenance service to the facilities reinforced the poor conditions of the facilities and poor-quality health-care service deliveries, as well as increased loss of patients' lives while in the hospital. The study reflects that a professional maintenance services personnel (an Estate Surveyor and valuer) should be given the responsibility of managing these public hospital facilities, thereby ensuring theft sustainable performance regarding service delivery and health care services viability in public hospitals in Rivers State and in Nigeria at large.

**Keyword: Facilities; Public/General Hospital; Sustainable; Performance**

### INTRODUCTION

Currently, in Rivers State, other parts of Nigeria and other African countries at large, public hospitals facilities are recognized to suffer neglect and improper maintenance management. Thereby, denying the masses their social benefits of receiving quality health-care service deliveries. Similarly, because those facilities are underperforming the required services, it is a total loss of economic value and waste of fund especially those funds expended in the erection of the facility and its facilities. Unfortunately, the situations are more severe in rural and semi-urban areas of the State.

Consequently, as technology changes with regards to hospitals service delivery, so do maintenance requirements needs; though technology is time dependent (Geisler, 2002). Therefore, with many developments coming to light every day, the health-care facilities must be prepared to accommodate whatever the future holds. As such, the maintenance management of hospital building and its associated facilities is considered as one of the complex subjects in the field of facilities management (Shohet, 2005), but the significance of maintaining the facilities cannot be overlooked because it supports the health care service benefits delivery to the society. Even though: the nature of hospital buildings; the delicate mechanical and electrical systems in the facility, the inadequate maintenance budgets; and the qualities of the physical environment in which patients receive care: all affecting patients' recovery rate, staff satisfaction, and organizational productivity (Mulkin and Wiley, 1992).

Patients in a healthcare facility are often apprehensive and uncertain about their health, safety, and their isolation from normal social relationships; even the large, complex environment of the public hospital further contributes to their stressful situation. While it is factual that good patient health-care comes from dedicated individuals; similarly, the physical structures conditions and entire outlook of the hospital environment must be in a situation that guarantees the safety and well-being of patients when the hospital to receive a service at any time. Yet, the qualitative aspect of the building and its facilities sustainable performance is a function of justifiable maintenance management of the facility and their amenities. Therefore, the prerequisite for maintenance management of the hospital building and the associated amenities arises because buildings and their facilities are inevitably destined to deteriorate with time due to effect of various factors acting on the building and the facilities. However, in the study are, hospital buildings and their amenities are assumed to be given very little priority regarding their maintenance management for sustainable performance. Whereas a more progressive attitude should be to conserve the existing building condition through proper maintenance management since it is observed as a major natural asset (Hutton and Lloyd, 1993) and an investment of the people and government, the situation had remained in a contrary version.

Subsequently, the study investigated the conditions of the existing general hospitals facilities for sustainable performance of health-care service delivery in Elele-Alimini and Isiokpo communities and/or surrounding neighborhoods. Hence, the objectives of the paper are to: (1) assesses the conditions of the facilities in the public hospital; (2) provide a theoretical underpinning of the maintenance management of Public Hospital; and (3) sustainable performance as it relates to public hospital facilities. Finally, the paper highlighted the underlining major challenges contributing to the continuous poor state of facilities in the general hospitals in the study area and a reflection of why the investigation for the professionals, government and general public at large.

## REVIEW OF RELATED LITERATURE TO THE PAPER

### **The Maintenance Management of Public Hospital Facility**

According to Shohct (2003), the performance of hospital facility and their facilities depends to a large degree, on continuous and planned systematic periodic maintenance. However, there is obvious need to step-up existing but incompetent practice for maintenance of public buildings and their facilities. Historically, in both public and private sector, maintenance is erroneously seen avoidable task which is perceived as adding little to the quality environment and expending scarce resources which could be better utilized (Higher Education Backlog Maintenance Review, 1998). In Nigeria, according to Adenuga and Iyagba (2005), public facilities are in a very poor and deplorable conditions of structural and derivative disrepairs. In spite of millions of Naira spent to erect all these facilities, they are left, as soon as commissioned to face premature but steady and rapid deterioration, decay and dilapidation. Buildings are required to provide a conducive and safe environment for various human activities. This, essentially, is the main function. The extent to which the facility provides the required environment for the required activity is a measure of the functionality of the facility (Oladapo, 2005).

The principal goal of every health institution is to provide care for patients. In furtherance of this goal, qualified staff with expertise motivated in an environment that is clearly conducive and patient friendly are adopted. Hospital facility is a place where health care should be available to the public for treatment, healing and succor,

but in the midst of infrastructural deterioration and consequently inadequate care facilities, patients do not recover fast and may pick up new ailment which has made public hospital facility and its facilities to become a place where health people working in the built environment and patients have allergic-like reactions (to unspecified triggers) such as dizziness, nausea, irritation of mucous, membrane, eye and/or nasopharyngeal irritation and sensitivity to bad odour from human waste, poor toilet facilities, insufficient cleaning methods (Iyagba, 2005).

### **Sustainable Development as Related to Hospital Built Environment in Nigeria**

Nigeria is one of the less developed countries (LDCs) of the world where poverty is endemic. Consequently, the main problem-facing majority of its people are how to survive economic hardship in the midst of abundant natural resources (Adenuga, 1999). Government-owned hospitals are confronted with unique challenges that threatens their existence. According to Orifade (2003), in Nigeria, installed health facilities are as old as the hospitals themselves. Some of the medical equipment are unserviceable and need outright replacement. The colonial architecture in some of the older hospitals, which were hitherto famous for their functionality, has now become less attractive because of the general neglect of the buildings maintenance. Overcrowding has also led to deterioration of these facilities. The state of maintenance and the physical surroundings in public hospitals facility are present health problem in public healthcare delivery. Patients in a healthcare facility are often apprehensive, uncertain about their health and safety. The deficiency is further found to originate from the institutions inherent governing structure, which promotes inefficiency and inflexibility through the imposition of bureaucratic impediments to operational effectiveness. Maintenance works in public hospitals are often complex in nature. The quality of the maintenance manager is another factor found to be affecting the execution of maintenance operations in public buildings (Iyagba, 2005). This has a direct impact on facilities performance, productivity, satisfaction and turnover.

Management is a living force and it is the force that gets things done to acceptable standards. According to Nours Hospital Consultant (2002), a hospital is not a mere building, but a complex social institution that handles the dynamics of life and health situations during the process of rendering health care. Furthermore, a mistake in a hospital building management can cost the lives of many human beings at a time. These characteristics represent unique operating condition and a bottom-line that involves much greater stakes than the profit-only vision of most business ventures. There is need to evaluate the existing maintenance management condition and performance of public hospital in order to improve their standard for effective health care deliver in Elele-Alimini and Isiokpo in Rivers State, Nigeria.

#### **DESIRABLE QUALITIES AND IMPORTANT SKILLS OF EFFECTIVE MAINTENANCE MANAGER**

Like any other human endeavor, maintenance activities demand someone to manage them. According to Adebayo (1991) management still remains the philosophy or practice of organized human activity, and managers are the people responsible for the conduct and control of such an undertaking. The manager is therefore concerned with the ways and means of getting job done. According to Geneen (1997) cited in Krass (2000) management is not a collection of boxes with names and titles on the organizational chart. Management is a living force. To the author, it is the force that gets things done to acceptable standard.

Geneen (1997) as reported by Krass (2000), describes a manager as someone who has the courage to gamble, to delegate and to be tough. To the author, management have a purpose of dedication, and that dedication must be an emotional commitment. It must be built in as a vital part of the personality of any one who truly is a manager. He or she is the one who understands that management must manage. Fox (1956) describes a good manager as some body having ability to think creatively, constructively and clearly. To the author, a good manager must be serious, keep an open mind to the other fellow's ideas and listen. He must have the ability to judge justly or wisely, especially in matters affecting action. To him, managers who are

destined for leadership must be persons who can make sound and wide decisions. Fox (1956) further expatiates on a good manager as someone who must be optimistic, he must radiate confidence and enthusiasm. He must be somebody who can inspire. According to the author, a discouraged and despondent executive can send a hundred or more employees' morale into the gutter. To him, a worried looking boss can touch off a wave of fear rolling throughout an organization. For these reason, as a good manager, he must be a man of faith, faith in the people to whom you have assigned an important job, faith in yourself, faith in God. Eade (1996) in his own contribution states that whether you work in a hospital, health maintenance organization or government facility, your behavior as a manager has a direct impact on staff performance, productivity, satisfaction and turnover. To the author, good management, like good health, is the result of daily conditioning. A good maintenance manager must be able to plan, teach, delegate, not dump; be capable of independent thinking; building a team, set an example and accept responsibility.

### **Challenges/Problems of the Poor Condition of the Public Hospital Facilities**

These have been alluded to severally earlier. In brief, such challenges are myriad but include:

- Inadequate financial provision by government to run the hospital. The Federal and State governments in Nigeria have consistently under-provided for the healthcare sector, even very below the WHO recommendations.
- Indiscipline and or non-professional management at hospital facilities. Due to systemic corruption in the country, inappropriate or unsuitable personnel are deployed to work at hospital facilities.
- Slow and or no response to needs for maintenance of infrastructure deterioration.

### **RESEARCH METHODOLOGY**

The study adopted cross-sectional survey research design which aimed at appraising the current condition of the public hospital facilities and how it could be managed to improve sustainable performance. In attaining the set purpose, two hospitals were

chosen for this study namely Elele-Alimini and Isiokpo General Hospitals. Survey research design, according to Ali (2006) is concerned with describing and explaining events as they are without manipulation of what is being observed. The technique adopted according to Easterby-Smith (1991) as cited in Oladapo's (2005), is to afford an objective measurement of the subject under analysis and facilitates replication (adopted and verification) by others. This strategy is considered useful for the study because it will help in assessing the potential for effective healthcare facilities and a sustainable performance of the public hospitals facilities especially those in Elele-Alimini and Isiokpo general hospitals. The study respondents comprises the medical staff both administrative/technical, maintenance management staff, and the people residing in the communities.

The two public hospitals are located within the same geographical zone and have similar social background. Analytical tools used include table frequency and percentage.

### **DATA COLLECTION**

It is impracticable to examine/test all the inhabitants of the communities for the collection of data for this study. Therefore, the non-probability or representative sampling technique was adopted. A sampling frame of 200 cases, representing to about 0.070 – 0.075% of the population was set up.

Saunders M., Lewis P. and Thornhill A. (2009) clearly postulated that properly established generalization from data about a population using a non-probability sampling (based on statistical probability) are acceptable provided irrelevant cases are excluded. Nwanna (1981) has stated that no fixed numbers or percentages are ideal rather the circumstances of the study determines what number or percentage of population should be studied.

Consequently, the application of Taro Yamme's formula for sample size determination; allowing a 5% margin error and using a sample frame of 200 gave the need to distribute 134 questionnaires within the two communities. A total of 130 questionnaires (97%) were retrieved. The questionnaires were randomly distributed; this was neither gender nor occupation-specific. The questionnaire

requested for personal views of respondents in existing public hospital facilities under study: the current conditions of the hospital facilities and problems associated with management of the hospital facilities.

The researcher also engaged in interactive interviews and deep observation of the hospitals' premises and facilities for first hand data and information. The various information obtained from the interview and observation were utilized in coming to conclusions in support of the responses from the questionnaires.

### METHOD OF DATA ANALYSIS

Data collected were subjected to qualitative analysis and descriptive statistics. The questionnaire was based on a five-point likert scale to measure the level of acceptance and perception as follows: strongly agree (1), agree (2), undecided (3), disagree (4), strongly disagree (5).

**Table 1: State of Existing Facilities of Isiokepo General Hospital**

S/ N	Item	Available	Still in use/serviceable	Disrepair/non-serviceable	Remarks
1	Hospital beds	√	60%	40%	No patient
2	Doors/windows	√	30%	20%	
3	Kitchen facilities	√	30	70%	
4	Public water supply	-	-	-	
5	Bore hole facility	√	-	100	
6	Toilets	√	40%	60	
7	Bathroom	√	80%	20%	
8	Electricity supply/generator	√	50%	40%	
9	Ceiling fans	√	80%	20%	
10	Air conditioners	√		100%	
11	Vehicles/ambulance			100%	
12	Furniture	√		30%	
13	Maternity/birth service centre	√		60%	No patient on admission
14	Scanning machine/ X-ray machine	√		100%	
15	300 MA siemen	√		100%	
16	Sono hire G.50/U/S machine	√		-	
17	Pharmacy building	√		Not in use	
18	Laboratory service house	√		√	



19	Physiotherapy house/equipment	√		√	
20	Medical laboratory/machines	√		-	
21	Wards	√		Not in use	
22	Outpatient department	√		60% in use	No patients
23	Mortuary and surgical theater	√		Not in use	

**N/B.** The General Hospital Elele-Alimini is not in operation. The entire premises is overgrown with weeds. It has been vandalized and abandoned in a derelict condition.

Table 1 shows the state of exiting hospital facilities at the General Hospital Isiokpo. The hospital is in partial operation, as it is under continually deterioration even though it is the biggest medical care centre for a community estimated to be over 200,000 population. The above conditions were affirmed by respondents, interviewees and the researchers' personal finding and observations.

**Table 2: Lack of Adequate Funding.**

S/No.	Options	Respondents		Percentage (%)	
		Elele-Alimini	Isiokpo	Elele-Alimini	Isiokpo
1.	Strongly agree	29	65	58	81
2.	Agree	16	11	32	14
3.	Undecided	03	-	06	-
4.	Disagree	02	02	04	2.5
5.	Strongly disagree	-	02	-	2.5
Total		50	50	100	100

Table 2 sought to ascertain whether lack of adequate funding is associated with professional management. The result in Elele-Alimini shows that 29 respondents representing 58% of the sample strongly agree, and another 2 respondents representing 4% disagree. While all the 65 respondents representing 81% of the sample in Isiokpo strongly agree.

**Table 4.3: Lack of Professional Management**

S/No.	Options	Respondents		Percentage (%)	
		Elele-Alimini	Isiokpo	Elele-Alimini	Isiokpo
1.	Strongly agree	05	05	10	62.25
2.	Agree	10	45	20	56.25
3.	Undecided	33	30	66	37.50-
4.	Disagree	02	-	04	-
5.	Strongly disagree	-	-	-	-
Total		50	80	100	100

This question sought to find out whether lack of professional knowledge was a problem associated with professional management of the hospitals. Result in Elele-Alimini shows that 15 respondents representing 30% of the sample agreed to the assertion, while as many as 33 or 66 were undecided. In the Isiokpo study area, 50 respondents representing 62.5% of the sample strongly agree/ agreed that lack of maintenance practice was a problem.

**Table 4: Lack of maintenance practice**

S/No	Options	Respondents		Percentage (%)	
		Elele-Alimini	Isiokpo	Elele-Alimini	Isiokpo
1.	Strongly agree	50	34	100	42.50
2.	Agree	-	41	-	55.00
3.	Undecided	-	02	-	2.50
4.	Disagree	-	-	-	-
5.	Strongly disagree	-	-	-	-
Total		50	80	100	100

Table 4 indicates that all respondents at Elele-Alimini strongly agree that lack of maintenance practice was major in the deterioration of the hospital facilities. Similarly, at Isiokpo 97.50% strongly agree/agree with this assertion.

**Table 5: Financial corruption:**

S/No	Options	Respondents		Percentage (%)	
		Elele-Alimini	Isiokpo	Elele-Alimini	Isiokpo
1.	Strongly agree	24	70	48.00	87.50
2.	Agree	12	05	24.00	6.25
3.	Undecided	04	05	8.00	6.25
4.	Disagree	10	-	20.00	-
5.	Strongly disagree	-	-	-	-
Total		50	80	100	100

Table 5 shows that corruption is considered by many as one of the factors that made the hospital unable to provide professional maintenance management. At Elele-Alimini 72% (36 respondents) strongly agree/agree that this is the case. At Isiokpo, over 83.75% or 75 respondents was the bane of the hospital. Financial corruption here means over-invoicing of purchases, stealing, embezzlement and defrauding of fund from government and the internally generated fund

## CONCLUSION

From the results obtained in this study, the following conclusions are made:

- (a) There is clear longtime deterioration of the hospital facilities due to lack of maintenance. It was also evident that even when the hospitals worked on full steam, there were no professional manager to superintend over the maintenance and management of facilities and infrastructure. Wali (2020) has established that lack of professional manager to oversee facility and its facilities is a sure way to deterioration, and loss of care capability for patients by the hospital.
- (b) The staff strength of the maintenance department in public hospitals in Elele-Alimini and Isiokpo, Rivers State is inadequate. This is established fact based on the findings carried out on the factors responsible for the poor condition of the hospital building in Elele-Alimini and Isiokpo (Iyagba, 2005). They do not have good experience on hospital maintenance management. Majority of the operators of public hospital facility do not have access to any formal or in-service training programme on effective use of hospital facilities.
- (c) There is an existing maintenance policy guiding the maintenance work execution, however, the major training ground to be given to maintenance operatives are workshops and seminars, which are vary inadequate for effective performance especially in a sensitive environment like hospitals. The study also revealed maintenance operatives are not well motivated and this was attributed to lack of tools/equipment/materials in executing the desired maintenance programmes in hospitals. Others are irregular payment of salaries, delay in promotion, etc.

- (d) Both in the perception of the public and in reality, one of the major faults that contributes to the deterioration of the hospitals is poor and or very inadequate funding by the owner-government of the hospitals.
- (e) The hospitals gradually lost patronage and operation as their facilities began to deteriorate due to lack of proper maintenance and professional management.

## RECOMMENDATIONS

In the light of the research findings, and conclusion, the following recommendations are made in order to improve on the practice of maintenance management of public hospital buildings including services in Elele-Alimini and Isiokpo, Rivers State and indeed in all public/general hospitals.

- 1) Facilities maintenance and management at public hospitals should be overseen by an estate manager or valuer.
- 2) Maintenance staff are to be well motivated in order to deliver their best during the maintenance work execution (management should ensure that the head of maintenance department possesses the required skills for the maintenance management of hospital facilities).
- 3) Progress report of work done is to be submitted to the management through the head of maintenance department regularly.
- 4) Government should encourage individuals or other stakeholders to contribute towards healthcare delivery services since government subvention alone can no longer be sufficient to meet up with the high demand of contemporary developments in healthcare technology.
- 5) Inefficiencies and inflexibility through the imposition of bureaucratic impediments to operational environment due to the sensitivity of the services being rendered, should be expunged by policy and practice.
- 6) Maintenance staff and users of hospital facility should be given the opportunities for further training on their jobs and also on effective use of hospital facilities. This is necessary to reduce the occurrence of defects, and mishandling of facilities which will consequently bring about better physical and functional maintenance of hospital facility elements and services.

- 7) Deliberate policy and action should be put in place by government (hospital owners) to check corruption and system indiscipline in hospitals.

## REFERENCES

- Adebayo, S. O. (1991). A Survey of the maintenance management of public buildings in Nigeria. Unpublished Ph.D thesis, Department of Building, University of Lagos, Nigeria.
- Adenuga, O. A. & Iyagba, R. O. A. (2005). Strategic approach to maintenance approach to maintenance practices for public building in Lagos State. *The Lagos Journal of Environmental Studies*, 5(1): 20 – 28).
- Adenuga, O. A. (1999). Building maintenance in Nigeria, structural deterioration, recognition and diagnosis of causes and remedies, *shelter watch Lagos*, 1(01): 10 – 25.
- Ali, S. M. (2006). A study about the role and social exchange in sociology in organizations; *Proceedings of 4<sup>th</sup> International Management Conference Journal*, Tehran, 2 – 4.
- Amanatunga, D., Baldry, D., Sarshar, M., & Newton, R. (2002). Quantitative and qualitative research in the built environment: Application of “mixed” research approach. *Work Study*, 51(1): 17 – 31.
- Blissett, R. (2004). Effective leadership in managing proactive maintenance and reliability programs. *The Maintenance Journal* (available on [www.maintenancejournal.com](http://www.maintenancejournal.com)).
- Eade, D. M. (1996). Motivation management, developing leadership skill informative article. Retrieved on 7 April, 2006 from: <http://www.adv.leadership-grp.com/articles/motivate.htm>.
- Easterby-Smith, M. (1991). *Management research on introduction*. Sage Publication, London.
- Fox, J. M. (1956). What it takes to be a manager. *The book of management wisdom*. Retrieved on 4 April, 2006 from [www.leadershipNow.com](http://www.leadershipNow.com).
- Geisler, E. (2002). Trends in hospital and healthcare technologies – The future, hospital emergency and facilities management, 18 – 22.
- Geneen, H. (1984). Essential qualities of great managers? *The book of wisdom*. Retrieved on 4 April, 2006 from [www.leadershipNow.com](http://www.leadershipNow.com).

- Higher Education Backlog Maintenance Review (1986), London.
- Hutton, T. & Lloyd, H. (1983). "Mothballing" building: proactive management and conservation on a reduced budget". *Structural Survey*, 11(4): 2335 – 342.
- Iyagha, R. O. A. (2005). The menace of sick buildings – A challenge to all for its prevention and treatment. An inaugural lecture delivered at University of Lagos, Lagos.
- Krass, C. (2000). *The book of management wisdom; Classic writing legendary managers*, Wiley, 1<sup>st</sup> ed., 2000.
- Malkin, J. & Wiley, J. (1992). *Hospital interior architecture, creating healing environment for special patient population*. Washington, DC, AIA Press.
- Nwanna, O. (1981). *Introduction to educational research*. Ibadan, Heinemann Education Books.
- Oladapo, A. A. (2006). A study of tenants' maintenance awareness, a responsibility and satisfaction in institutional housing. *International Journal Strategic Property Management*.
- Orifade, K. (2003). *Informatics in hospital management*. Unpublished M.Sc. reprint, Department of Business Administration, University of Lagos.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*, 5<sup>th</sup> ed. FT Prentice Hall, London.
- Seeley, I. H. (1976). *Building maintenance*. Macmillan Press Ltd., London.
- Seeley, I. H. (1987). *Building maintenance*. Macmillan Press Ltd., London.
- Shohet, I. M. (2005). Key performance indicators for maintenance of health care facilities management article. Retrieved on 10 December, 2005 from <http://www.fin.com/profresources/magazines/article.cgi>.
- Wali, C. J. (2020). Potentials for professional management of the sustainable performance of public hospital facilities in Elele-Alimini and Isiokpo. Unpublished M.Sc. Thesis, Department of Estate Management, Rivers State University, Port Harcourt, Nigeria.