

Strategies and Methods for Effective Management in The Practice of Radiography

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ABSTRACT

This paper explores, the historical past of the health care delivery sector in Nigeria evaluates the current situation in health care delivery, and then elucidates the place and role of radiography as an undoubtedly inevitable component of the health care delivery system, and unarguably a very strategic cornerstone upon which many a medical diagnostic procedure or process is based. The paper concludes with suggestions for the use of the procedures of Management Information System (MIS), and Decision Support System (DSS) as strategies for effective management in the practice of radiography.

INTRODUCTION

This paper explores the historical past of the health care delivery sector in Nigeria, evaluates the current situation, and strategies for future tasks and developments, especially as it applies to the practice of radiography in Nigeria.

HEALTH CARE ADMINISTRATION IN NIGERIA – A HISTORICAL PERSPECTIVE

In the earlier years of the existence of Nigeria as a sovereign nation and corporate entity, probably up to the middle seventies, when the states structure was still very much in the formative stage, the dominance of the Federal posture in the planning, financing and execution of health care programmes was undoubtedly very conspicuous, and perhaps overbearing. However, over the years, the states, local governments, and other private entrepreneurs have been encouraged and challenged to assume a more pronounced and significant role in the execution of health care delivery programmes, within the limits and confines of resources available to them.

It is worthy of note that there has been a significantly positive shift in this scenario, with the private sector being pushed into a relatively more defensive mood, and encouraged to assume higher proportions in the overall scheme of activities in the national coverage of health care delivery.

The management and organizational capabilities of the various public and private participants in the health care sector have improved over the years, with the injection of a more professionally competent crop of health practitioners and administrators into the system. This has undoubtedly lent some substantial credence to a claim of improved productivity of the various arms of the health sector. I have no doubt in my mind that the practice of radiography in Nigeria, can certainly lay claim to a large chunk of this spate of improved professionalism and productivity.

It is pertinent to mention at this juncture, that inspite of an increased evenness in the distribution of health care delivery services in the country, there is still a large degree of disparity among the states. Quite a large number of states in the northern part of the country still lag far behind the required ratio of health worker to patient; a good number of comparatively poor states have no access to the wherewithal, (human, material, or finance), for the provision of adequate health care delivery services. In a similar vein, a good number of states in the southern part of the country have geographical, ecological and topological limitations that inhibit effective coverage of the health care service needy populace. I suspect this problem will continue unresolved and unabated without a renewed cohesive partnership of both the private and public participation in the health care sector. This, according to Adebola,¹ is a major route to the realization of the nation's development. In Adebola's words, "– a nation's productive capacity, installed and real, arising from improved health status of its citizens are the touchstones against which the country's health policies, health systems, and indeed the so-called dividends of democracy can be judged."

The prevalence of diseases in the country can be linked to the level of endemic poverty among the populace. Poverty in individuals fosters diseases in the nation. According to Ugbolue and Olubi² (1997), a United Nations Development Program (UNDP) statistics revealed that about 38 million Nigerians were in the firm grip of poverty in 1997. Three years later, at about the beginning of the new millennium, Nigeria was rated the tenth poorest country in the entire world, with estimated 40 million poverty stricken citizens. This is despite the incontrovertible facts that the country

is the fifth largest producer of petroleum, the world's second largest producer of palm oil, the largest producer of the "brand new golden mineral", cassava. Nigeria is also rated one of the world's largest producers of cocoa, coffee, and a sizeable number of solid mineral resources. Yet, the citizens have remained in the bondage chains of near abject poverty.

Most of Nigeria's disease burden is due to preventable diseases, which have been traced mainly to poverty as a remote causative factor. The development of effective measures to improve the health of Nigerians is therefore a very crucial factor for the replacement of the current vicious circle of ill health, poverty, and low level of development with the much desired chain of well being, and sustainable development.

HEALTH CARE DELIVERY IN NIGERIA – A SITUATION REPORT

Perhaps a further attempt at strategising for enhanced development plans for the health care sector in Nigeria could be an appraisal of the situation on ground. Health care delivery in Nigeria is currently in a deplorable state. The health status of the population is undoubtedly unenviable. Maternal mortality of one mother's death in every seventy deliveries is one of the highest in the world. Under-5 mortality rate is higher than the average in Sub-Saharan Africa. The health care system is ineffective and inefficient, (WHO recently ranked Nigeria's health system 187 among its 191 member states). Routine Immunization coverage rate dropped from 80% in 1990 to less than 40% in 2004, public expenditure on health is less than \$5 per capita, compared to the internationally recommended rate of \$14.

Some of the major hindrances and obstacles that have militated against the development of a sustainable health care delivery system in Nigeria include the following:-

1. There is a limited capacity for policy/plan/programme formulation, implementation, monitoring and evaluation at all levels.
2. There is no health act describing the national system and defining the health functions of each of the 3-tiers of government.
3. Partnerships between the public and private sector are non-existent or ineffective.

4. Disease programs like HIV/AIDS, TB, and malaria and other programs like reproductive health are currently implemented within a weak health system and have had little impact.
5. Routine immunization coverage rate that reached over 80% in the early 1990s nosedived to an all time low level until recently.
6. A very high proportion of primary health care facilities serve only about 5-10 % of their potential patient load, due to consumers' loss of confidence in them among other causes.
7. Our secondary health care facilities are in prostate conditions.
8. Diagnostic and investigative equipment in tertiary health institutions are outdated.
9. The referral system between various types of facilities is non-functional or ineffective.
10. Fake, sub-standard, adulterated and unregistered drugs are prevalent.
11. Erratic supplies and availability of drugs and other materials abound.
12. Public expenditure on health is less than \$5 per capital, compared to the \$14 recommended internationally. Private expenditures are estimated to be over 70% of total health expenditure with most of it coming from out-of-pocket expenditure in spite of the endemic nature of the citizens poverty.
13. There is no broad-based health financing strategy.
14. Management of limited health resources available is ineffective and inefficient.
15. There is a culture of corruption and self-interest.
16. Consumers' health knowledge and level of awareness of their right to quality care are low.
17. Donors and other development partners, both local and international are poorly coordinated.

THE PLACE OF RADIOGRAPHY

Radiography is undoubtedly a major component of the health care delivery system.

It is unarguably the very cornerstone upon which many a diagnostic procedure or process is based. Since its fundamental foundation in the production of the first local indigenous Nigerian Radiographer in 1913, the profession and practice of radiography has really come of age.

Building upon the foundation of the profession's rudimentary, early and conventional practice of X-

ray imaging, it has taken giant steps into further techniques in Magnetic Resonance Imaging, Scintigraphs, Ultrasonic Imaging, Fluoroscopy and Thermographic Imaging and Computed Tomography.

At the current rate of scientific development, it is expected that by the end of the third decade into the new millennium, further advances in bio-interfacing will enable medical practitioners treat a wide range of disease through electronic applications and applicators.

First in the hitherto Herculean disease treatments to be on the firing line of medical electronic applications are senile dementia, schizophrenia, and multiple sclerosis, paralysis and motor nerve. Hopefully to follow are other medical interventions such as memory enhancement, dieting control, and thought communication.

It is pertinent to mention at this juncture, that these advances in medical practice are undeniably hinged and contingent upon the acquisition of the knowledge, skills and use of machine intelligence, principally the computer technology. That is why I will make bold to add here categorically, that any medical practitioner or medical service provider, and indeed, any practitioner of Radiography, who is presently not computer literate will soon be shoved off the technological train, and left behind in current advances in medical practice.

THE WAY FORWARD

Our proposed strategies and methods for effective management in the practice of radiography will begin with the application of two major management techniques, the Management Information System (MIS), and the Decision Support System (DSS).

MANAGEMENT INFORMATION SYSTEM (MIS)

The concept of Management Information System (MIS) has evolved over the years as a process of organizing information and data inputs, through the use of computerized technology, for the enhancement of productivity of products and services. According to Irinoye³, the major functional components of the MIS process can be put as follows.

(a) All component parts of MIS function together within a coordinated system to store, process,

retrieve, and provide needed data and information.

(b) MIS functions within a network that links data within and outside the organization; it also links such information and data from the past to the present in such a way as to afford the Organisation evident predictions and projections for future use and adaptations.

(c) MIS operations are responsively time conscious, as delayed or denied opportunities could be hazardous to the corporate entity's operations and development.

He further went on to do an exposition on the resultant functional values that could arise from the aforementioned component parts of the MIS.

These include the following:

(i) Enhanced Planning

- * Setting corporate goals and focus
- * Formulation of policies tailored towards the achievement of present goals
- * Decision procedures for program execution.
- * Development of short, medium and long-term strategies for goals achievement.
- * Budget determination and development

(ii) Development of hard and software structures

- * Determination of required physical resources.
- * Construction of hierarchical modalities for use of resources. (departmentalization, chains of command, vertical and lateral interlinks for efficient resources utilization, etc).
- * Human Resource Determination, sourcing, and Development.

(iii) Plans Execution

- * Coordination of plan execution.
- * Evaluation and monitoring of activities geared towards final corporate goal achievement.

It will suffice at this juncture to add that MIS will incorporate all relevant operational information for the need of first line managers and all tactical information for the need of the middle level

managers, for the overall achievement of corporate productivity in the health sector.

DECISION SUPPORT SYSTEM

The Decision Support System (DSS) is an emerging concept that complements the MIS. In the words of Irinoye³, the DSS acts through the “utilization of scientific methods, statistical and mathematical models, using knowledge derived from abstractions to approximate real life situations allowing for inferences to be made about possible effects of various courses of action.”

A detailed description of the DSS process may not be entirely within the concept of this paper.

ADAPTIVE STRATEGIES FOR SUSTAINABLE DEVELOPMENT

It is expected that a corporate body, albeit a professional body such as the Radiographers Association, that seeks to remain sustained must adapt suitable cognate measures and strategies that will make it remain not only sustained, but also relevant in its environment.

O’ Benson⁴ dealt with this issue extensively, especially as relate to professional bodies. In the opinion of O’ Benson, the key concepts and elements of adaptive strategies that are often recommended are “Diagnosis” and “Anticipation”. In essence, these key elements will be made strategically functional through the application of the following factors.

- (a) The Association of Radiographers of Nigeria should ensure the enthronement and sustenance of a credible leadership, that can provide and support the required entrepreneurial mechanism to protect career development of component individual and corporate members so as to take the leadership and membership to soaring heights in corporate team building and career development.
- (b) The Association should put in place an effective mechanism and procedure for the monitoring of professional practice and ethics, such as will endear it to the society, manage its corporate image within the professional group and the larger society, and generate a stronger and wider support base for the profession. There should be absolutely no

breathing space for “quacks” in the practice of radiography in Nigeria.

- (c) The Association should immediately set up effective machineries to enable it, not only to identify current and future needs of clients, but also to identify with future developmental trends in medical and technological practice. In this way, the professional practice will be able to strategise for and cope with future demands of its medical clientele base. In the words of Ijewere, “An organization, nay a nation, that wants to survive and prosper must be built on a culture of professional excellence.”⁵
- (d) It is strongly suggested that entry requirements into the profession should be enhanced and further strengthened. This will afford the body a stronger, higher, and clearer visibility and acceptability within the society. The profession is most certainly not for dropouts from medical schools, it is rather a profession for individuals who are qualified, determined and trained to be career professionals in Radiography, an unarguably vital and inevitable arm of medical practice.
- (e) On a final note, one would make bold to suggest that the Board of Radiographers in Nigeria should begin to widen their financial resource base. The Board should begin to look inward and go beyond government subsidy and members’ subscription for financial sustenance. An interlink group should be established with other arms and sectors of the economy for financial resource buildup and control. Pressure should be put on government to reduce the custom tariff on imported Radiography machine components. Assistance should also be sought from the private sector for the training of Radiographers, within and outside the country. These will go a long way to further strengthen the methods and strategies to enable the body make effective impact in the practice of radiography for the betterment of the larger society and mankind.

CONCLUSION

For the achievement of a rejuvenated health care delivery system, the collaborative efforts of all members of the body of practitioners of radiography in Nigeria will very often require softer skills, such as the innate ability to

contemplate, strategise, and execute plans for the achievement of preset corporate goals.

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