TQM STRATEGIES AND HEALTH CARE DELIVERIES: LESSONS FROM NIGERIA

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ABSTRACT

We examine the TQM Strategies and health care delivery in Nigeria, and the various means of measuring service quality. Nigeria continues to suffer outbreaks of various diseases cholera, malaria, cerebrospinal meningitis, measles, yellow fever, Bird flu e.t.c., all these diseases combine to cause high morbidity and mortality in the population. To assess the situation this paper looks at the relevant indicators like Annual Budgets by Government, Individual's income, the role of Nigerian Medical Association (NMA) and various health care agencies vested with the sole responsibility for elaborating standards for products and processes in Health care Delivery .

The paper also examines the implication of Government Budget estimates on the Life expectancy of an average Nigerian. The findings necessitated the need for the government to seek support from WHO to assist in strengthening the health care system by advocating and providing technical support to health sector reforms.

Keywords: Health, quality, hospital, clinic, sanitation, mortality, malnutrition, poverty, medicine.

1. Introduction

The organization of health services in Nigeria is pluralistic and complex. It includes a wide range of providers in both the public and private sectors: private for profit providers, NGOs, community-based organizations, religious and traditional care providers. The National Health Policy (1998) is based on the national philosophy of social justice and equity. Primary Health Care (PHC) is the cornerstone of the health system. The policy provides for a health system with three levels: primary, secondary and tertiary. The policy also spells out the functions of each tier of government and provides for the establishment of the advisory National Council on Health chaired by the Federal Minister of Health (the

Minister of State for Health and State Commissioners of Health are members). Other organs set up by the policy include the State Health Advisory Committees and Local Government Health Committees. Their potential has not yet been fully realized. As part of the health sector reform process, there is a need to review the functions of these organs in order to maximize their use. According to the National Health Policy, the federal government is responsible for policy formulation, strategic guidance, coordination, supervision, monitoring and evaluation at all levels. It also has operational responsibility for disease surveillance, essential drugs supply and vaccine management. In addition, it provides specialized health care services at tertiary health institutions (university teaching hospitals and federal medical centres). These serve as referral institutions for the secondary health facilities. At the lower level, the states and LGAs share responsibility for health care. States largely operate secondary health facilities (general hospitals and comprehensive health centres), providing mostly secondary care and serving as referral level for the LGAs which provide the essential elements of PHC. Operationally, the decentralized health structures of the federal government are in the states, while those of states are in the LGAs. Some states build and operate tertiary facilities or specialist hospitals. While the federal government is responsible for the management of teaching hospitals and medical schools for the training of doctors, the states are responsible for training nurses, midwives and community health extension workers (CHEWs). The LGAs provide basic health services and manage the PHC facilities which are normally the first contact with the health system. Some parastatals exist within the health system. The National Agency for Food and Drug Administration and Control (NAFDAC), National Primary Health Care Development Agency (NPHCDA), National Programme on Immunization (NPI), Nigerian Institute for Medical Research (NIMR) and National Action for Prevention and Control of AIDS (NAPCA) were created to deal with priority health issues. WHO (2007).

2. Statement of Problem

The Organization of Health service in Nigeria is Pluralistic and complex. It includes a wide range of providers in both the public and private sectors. Private for profit providers, NGOs, community based organization, religious and traditional care providers. The National Health Policy provides for a health system with tree levels: primary, secondary and tertiary. The policy also spells out the functions of each tier of government and provides for the establishment of the advisory National Council on Health (the Minister of State for Health chaired and State Commissioner of Health are members). Other organs set up by the policy include the State Health Advisory Committees and local Government Health Committees. Their potential has not yet been fully realized. Realizing the functions of these organs maximize their

use. The problems identified by this work are listed below;

1. The various participants, the Government, public-private partnership (PPPs) that have been bestowed with the responsibility of providing health care delivery have no clear composition and documentation and therefore, there is need to understand their composition and direction in order to carry out effective evaluation of their activities. It is also necessary to established the extent to which the composition and direction is comparable.
2. The sectorial performance vis a vis find allocation and industry expectation in a TQM model cannot be ascertained.
3. The contribution of the various activities of the regulatory bodies and the parastatals on health care delivery cannot be ascertained.
4. The various participants in the health sector have not address the vital statistics, in health care delivery. This has led to improper planning and evaluation of health care delivery, vital statistics has not been well documented, consequently leading to improper planning and evaluation of health care delivery.

3. Limitation of Study

This study examines the TQM strategies and health care delivery in Nigeria. The study identifies manpower training, activities of the Regulatory bodies and parastatals bestowed with health care and the life expectancy of an average Nigerian. This study only considers the relationship between the budget estimate on capital expenditure and recurrent expenditure on the life expectancy of an average Nigeria because the life expectancy at birth depends on the activities of the various participant in the health sector.

Operationalization

The degree of health care delivery depends on the direction and composition of the private, public and international bodies bestowed with health care delivery, vital statistics record, activities of the regulatory bodies and parastatal and resources allocation. This illustrated as follows;

$HCD = f (PPI_{C+D} + VS + R_P + R_B + R_E + \mu)$

Where

HCD = Health Care Delivery

PPI_{C+D} = Private Public and International bodies composition and direction

VS = Vital Statistics

RB = Regulatory bodies

RS = Parastatals

RE = Resource allocation (budget estimate)

In order to access the level of Health Care Delivery the study identifies access to health care delivery, manpower training in health care delivery and the life expectancy of an average Nigerian.. This is illustrated as follows;

$LE = f (PPI_{C+D})$

$LE = f (VS)$

$LE = f (RP)$

$LE = f (RB)$

$LE = f (RE)$ } ⟶ This study focuses on this variable only

$MT = f (PPI_{C+D})$

$MT = f (VS)$

$MT = f (RP)$

$MT = f (RB)$

MT = f (RE)

AH = f (PPI_{C+D})

AH = f (VS)

AH = f (RP)

AH = f (RB)

AH = f (RE)

Where

LE = Life expectancy of an average Nigerian

MT = Manpower training

AH = Access to health care delivery

4. The National Health Policy and Strategy

This policy to achieve health for all Nigerians was promulgated in 1988 and revised in 2004. The policy document was as a result of several consultative processes, incorporating views from stakeholders and reflecting new realities and trends in the National Health Situation including regional and global initiatives such as NEPAD and the MDGs. The main policy thrust focuses on National Health System and its Management; National Health Cares Resources; National Health Interventions and Services delivery; National Health Information Systems; Partnership for Health Development; Health Research and Health Care Laws.

A National Health Reforms Agenda is being implemented to carry forward the health strategies of the National Economic Empowerment and Development Strategy (NEEDS), New Partnership for Africa Development (NEPAD) and the MDGs.

Primary Health Care continues to be the cornerstone of health development in Nigeria. A working document has been developed for the revitalization of the implementation of primary health care as part of government stewardship role to reach the MDGs.

Health service management is decentralized at the three tier levels. In addition, some States have Health Management Boards which is responsible for direct service delivery while the Ministry focuses on policy formulation, standard setting and monitoring and evaluation. Community Participation is strengthened through the Village Health Committees (VHC).The establishment of VHC is emphasized in the current Health Sector Reforms. National Health Policy (2004)

5. Public-Private Partnerships (PPPs) for Healthcare in Nigeria

The call for improved health delivery services and expanded programs is particularly acute in developing nations like Nigeria where diseases are having a major impact on the health and quality of life of all people across all the sectors. Under serviced areas of developed countries also suffer from inadequate community health programs and have similar burdens and needs. Based on these, it has become imperative that there should be levels of Public –Private Partnerships (PPPs) towards sustainable healthcare delivery systems, as enunciated in the maiden National Health Summit held in Abuja, 1995 (Abuja Declaration).

Public-Private Partnerships have become critical frameworks through which some of

the elements of Health Sector Reforms are gated worldwide. Over the years, it has become increasingly obvious that good healthcare delivery systems had to be structured and driven under the purview of trans- sectorial partnerships or collaborations of different dimensions which are dependent on the nature of the environment and objectives of such arrangements. In a sense , Public-Private partnerships have to do with insights and practices touching public private sector relationships in ensuring regional or even global health quality outcomes and the conceptual aspects of such relationships, including the function of the key players in collaborating to make these partnerships achieve their set goals.

An additional disparity between PPP and privatization is that the extent of PPP business (and hence it's latent capacity for turnover) are constrained contractually, rather than by market forces alone. Normal private incentives still apply in the management of a PPP, such as the need to earn an adequate return on capital, but the business risk is, in effect, partly regulated by virtue of the constraints defined in the terms of the contract. In addition, with a PPP, the public sector pays for services on behalf of the general public and retains ultimate responsibility for their delivery, whereas the private sector's role is limited to that of providing an improved delivery mechanism. In the case of privatized utilities, ultimate responsibility for service delivery is transferred to the private sector.

Finally, the essential role of the public sector in PPPs is to define the scope of business, to specify priorities, set targets, and specify performance standards against which the management of the PPP is given incentives to deliver. The essential role of the private sector in all PPPs is to deliver the business objectives of the PPP by offering higher value-for-money to the public sector than could be achieved by public sector provision alone. Francis, O.O.(1998)

6. Nigeria's health sector reform

The seed for the current health sector reform underway in Nigeria was sowed sometime back in the year 2000 in the early days of President Obasanjo's first term in office. For reasons not entirely clear, the reform could not be initiated during the president's first term.

Objectives of the reform:

Objective 1 - Expand and strengthen primary health care services throughout the country.

Objective 2 - Eradicate, eliminate and control childhood and other vaccine preventable diseases through adequate routine immunisation activities.

Objective 3 - Integrate and strengthen all disease control efforts and health promotion activities into health care at primary care level.

Objective 4 Address the demographic problems through the provision of family and reproductive health services including the necessary services to reduce the incidence of STD and HIV infection.

Objective 5 - Reduce environmental and occupational health related morbidity and mortality.

Objective 6 - Rapidly resuscitate and improve the services of secondary health care to serve as an effective referral for PHC.
Objective 7 - Improve investigative, diagnostic and treatment capability of tertiary health facilities to serve as an effective apex referral system to all health facilities in the country.
Objective 8 Ensure the attainment of the goals and objectives of the National Drug Policy (NDP), which focuses on self- reliance in essential drugs, vaccines and biologicals through local manufacture and an effective drug administration and control system.
Objective 9 - Protect the public from the harmful effects of fake drugs, unregistered medicines and processed foods.
Objective 10 - Ensure that the support given by donors, NGOs and UN agencies is provided within the framework of the national health policy and plans.
Objective 11 - Broaden financing options to expand and improve access to affordable and adequate health care to a majority of Nigerians.
Objective 12 - Strengthen policy formulation, general management, financial management, and planning capacity of the Federal Ministry of Health and parastatals.
Objective 13 - Strengthen the capacity to develop, implement, monitor and evaluate evidence-based national health policy, planning, programmes and activities.
Perhaps to accommodate the interests of new parties to the reform, the following set of new objectives has been added:
Objective 14 - Institutionalize managed competition, public- private partnerships and National Health Accounts.

These fourteen objectives now form the core of Nigeria's 2004-
2007 health sector reform agenda. Johnson .D (2000)

7. Servqual in Health Care Administration

SERVQUAL, a standard instrument for measuring functional service quality, is reliable and valid in the hospital environment and in a variety of other service industries.

SERVQUAL also provides hospital administrators with a tool for the measurement of functional quality in their own organizations. Deficient scores on one or more SERVQUAL dimensions will normally signal the existence of a deeper underlying problem in the organization. For example, assume that SERVQUAL indicates that patients do not perceive hospital employees as being willing to help. The low score on this aspect of quality may be symptomatic of deeper problems that center on the organization's ability to hire and retain high-quality employees, to evaluate and reward superior performance, or to provide adequate training. Likewise, billing inaccuracies may be symptomatic of staffing problems that prevent insurance claims from being filed promptly and payments from being recorded accurately.

Therefore, one of SERVQUAL's major contributions to the health care industry will be its ability to identify symptoms and to provide a starting point for the examination of underlying problems that

inhibit the provision of quality services. The measurement of patient expectations as well as perceptions provides a valuable dimension of insight into the process by which the quality of health care service is evaluated. Administrators should understand the areas in which expectations are particularly high so that the service delivery process can be tailored to meet those expectations (Parasuraman, Zeithaml, and Berry 1985). Similarly, in order to identify and correct service quality problems quickly, administrators should understand patients' perceptions of the quality of service delivered and the mannertin which expectations and perceptions are balanced. In addition, the scale can also be used to measure the views of hospital managers and employees as they think patients perceive the quality of the service. This can be done easily by changing the instructions portion of the scale. Hence, the existence of another potential gap, the gap between the provider's view and the customer's view, can be assessed and monitored (Parasuraman, Zeithaml, and Berry 1985). Finally, it should be pointed out that SERVQUAL is designed to measure functional quality only (defined as the manner in which the health care service is delivered to the patient). However, functional quality in a health care setting cannot be sustained without accurate diagnoses and procedures. Such technical quality is the focus of research that is being conducted by a number of organizations, including the Joint Commission for Accreditation of Healthcare Organizations (JCAHO). For the long-run success of a health care organization, both functional and technical quality has to be monitored and managed effectively.

8. Nigeria leads fight against "killer" counterfeit drugs

Nigeria has been at the forefront of global efforts to fight counterfeit drugs since Prof. Dora Akunyili took over the National Agency for Food and Drug Administration and Control (NAFDAC) in 2001. Prior to 2001 Nigeria was ranked as one of the most corrupt countries in the world, by Transparency International. Before her assumption of office , staff abused their position to extort money from honest manufacturers at the same time as taking bribes from counterfeiters in return for access to the Nigerian medicines market. Akunyili told the *Bulletin (World Health Organization 2007)*: *"The level of corruption we had in 2001 cannot in any way be compared to what we have now. It has decreased to almost zero. But it is still a problem. We cannot rule it out completely."*

The Nigerian agency is now a key player in reducing the manufacture and distribution of counterfeit medicines in West Africa. It has the support of the Food and Drug Administration and the Environmental and Occupational Health Science Institute at Rutgers University in the United States of America, among other regional and international agencies including WHO.

Her efforts have led to increased public awareness about counterfeit drugs and

tougher surveillance at Nigerian customs. She says that the number of fake drugs in circulation in Nigeria has been substantially reduced, although she and everyone else involved in fighting the illegal trade admit how difficult it is to quantify the problem and therefore measure their success. Still, there is plenty of anecdotal evidence that her measures have had an impact: shopkeepers no longer dare to sell counterfeits openly for fear of being reported to the authorities. Criminals behind the trade have left Nigeria and set up business in other countries, she says. Now governments across West Africa are working closely with Nigeria to crack down on the illegal trade. World Health Organization Bulletin (2007). The milestone achievement by NAFDAC could be traceable to the attention given to this sector by the present administration, the support of the citizenry and efforts by the stakeholders in the sector. Below are various Parastatals and regulatory bodies established by the Government and stakeholders all aimed at improving the health sector.

8.1. Parastatals

Primary Health Care Development Agency (NPHCDA)

National Health Insurance Scheme (NHIS)

Nigerian Institute For Medical Research (NIMR)

Nigerian Institute Of Pharmaceutical Research And Development (NIPRD)

Regional Center for Oral Health Research and Training Initiatives (RCORTI)

Teaching Hospitals, Specialized Hospitals and Federal Medical Centres

8.2. Regulatory Bodies

Nigeria Medical & Dental Council

Nurses & Midwifery Council of Nigeria

Pharmacy Board of Nigeria

Dental Technologist Board of Nigeria

Health Records Officers Registration Board of Nigeria

Research Methods

To examine the effect of the activities embark upon by the stakeholders in the health sector on the life span of an average Nigerian, data were gathered from secondary sources such as the Central Bank of Nigeria Annual Reports. The data used covered a period of 14 years (1990 – 2003).

The method of analysis was based on Correlation Coefficient between Life expectancy and Budget estimates. Bar chart and line graphs were also used to show the relationship between Budget estimates and Life expectancy.

Regression analysis was used to show the relationship between the budget estimate and life expectancy.

Model Specification

$LE = A_o + X_1RE + X_2CE + U_t$

Where LE =Life Expectancy (Dependent Variable)

RE = Recurrent Expenditure (Independent Variable)

CE = Capital Expenditure (Independent Variable)

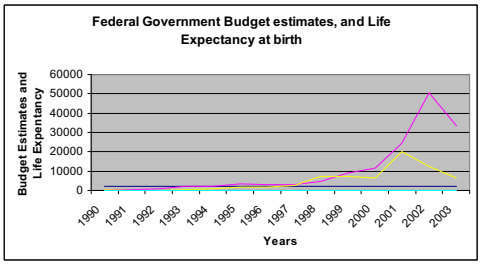
U_t = Error Term

Table 1 : Below shows federal government budget estimates, (Recurrent of capital expenditures) and life expectancy at birth, years.

YEARS	RECURRENT EXPENDITURE	CAPITAL EXPENDITURE	LIFE EXPECTANCY AT BIRTH (YEARS)
1990	401.1	257.0	54
1991	619.4	137.6	51
1992	837.4	188.0	52
1993	2331.6	352.9	52
1994	2066.8	961.0	52
1995	3335.7	1725.2	52
1996	3190.0	1659.5	53
1997	3197.2	2623.8	53
1998	4860.5	7123.8	53
1999	8793.2	7386.8	54
2000	11612.6	6569.2	54
2001	24523.5	20128.0	54
2002	50563.2	12608.0	54
2003	33254.5	6431.0	57

Source: Central Bank of Nigeria annual Reports (2004)

Figure 1: Federal Government Budget estimates and life Expectancy at birth



Model Summary

	R	R^2	Adjusted R^2	Std Error of the Estimate
Model I	0.491	0.241	0.178	1.3394

	R	R^2	Adjusted R^2	Std Error of the Estimate
Model II	0.647	0.419	0.321	1.1716

9. Results and Findings

The coefficient of determination R^2 is 0.241 which shows that the CE the current expenditure accounts for 24.1% of the variation in the life expectancy of an average Nigerian within the time of the study.

The coefficient of determination R^2 is 0.419 which indicates that the RE explains 41.9% of the variations in the life expectancy of an average Nigerian.

Using the Spearman's correlation coefficient, the value 0.644 indicates that there exist a positive linear correlation coefficient between total expenditure and life expectancy. The increase in life span is not as sharp as one would expect compared to the increase in the Budget estimates of the health sector.

The Regression analysis shows that the percentage of contribution of capital expenditure and current expenditure is less than 40%, which is significantly very low compared to normal expectations.

The standard error of the estimates is greater than half the value of the estimates X_1 and X_2. This shows that the estimates are

not statistically significant at 5% level of significance for a for a two tail test.

The implication of the above findings is that the minor changes expressed in the life expectancy of an average Nigerian may not be due to the gradual increase in budget estimates for recurrent expenditure and capital expenditure. The changes may be as a result of health reform embarked upon by the administration of President Olusegun Obasanjo and also various efforts by stakeholders in the sector aimed at improving the health care deliveries in Nigeria.

10. Conclusion and Recommendation

Public health systems vary in different parts of the world, depending upon the prevalent health problems. In the developing world like Nigeria, where sanitation problems and limited medical resources persist, infectious diseases are the most significant threat to public health. Public health officials devote resources to establish sanitation systems and immunization programs to curb the spread of infectious diseases, and provide routine medical care to rural and isolated populations. SERVQUAL's major contributions to the health care industry will be to identify symptoms and to provide a starting point for the examination of underlying problems that inhibit the provision of quality services. Finally, it should be pointed out that SERVQUAL is designed to measure functional quality only (defined as the manner in which the health care service is delivered to the patient). However, functional quality in a health care setting cannot be sustained without accurate diagnoses and procedures. Also, efforts by various Government's Parastatals and regulatory bodies to improve health care deliveries is impressive and commendable. Health reforms embarked upon by the President Obasanjo's regime have greatly revived the ailing sector.

However, the efforts made by authorities in charge of healthcare in Nigeria are impressive and commendable, but it should be sustained and improved upon.

References

Central Bank of Nigeria, Annual Reports, 2004.

Johnson, D. (2000) "COUNTRY HEALTH BRIEFING PAPER - Overview of Nigeria's Health System and Draft Plan of Action for Health Sector Reform" Health Systems Resource Centre for the UK Department for International Development. United Kingdom.

Public-Private Partnerships (PPPs) for Healthcare in Nigeria: The Awakening Possibilities. Retrieved 25th May 2007, from www.ex-designz.net

Facilitation Skills for Public Healthcare Professionals: An Introduction. Retrieved 25th May 2007, from www.ex-designz.net

Olateju O .I. and Adeyemi, O. T. (2007) "Measuring Service quality of Health Management in Nigeria" Environmental Behaviour Association of Nigeria, Lagos.

Parasuraman, A., el tal(1985) "A Conceptual Model of Service Quality and Its Implications for Future Research." Journal of Marketing 49, pg. 41-50.

World Health Organization Bulletin (2007), "WHO Country Cooperation Strategy:
Federal Republic of Nigeria".