

## HEALTH CARE COST AND FINANCIAL IMPLICATION TO HEALTH AND ILLNESS

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### *ABSTRACT*

*This paper discussed health care cost and financial implication to health and illness. It showed that a healthcare cost refers to the actual cost of providing services related to the delivery of health care, including the costs of procedures, Therapies and medication. The paper further examined what to determine the cost of health care, resources of health care cost in Nigeria and financial implications of health and illness. In conclusion, the implication of health care cost on health and illness is that it makes it difficult for people utilize preventive health care service hence increase in chronic disease conditions Recommendation was that government and other stakeholders should adopt strategies to control cost, reduce variations in care and deploy cost effective technology to promote healthy living.*

**KEY WORDS: Health Care Cost, Health Expenditure, Health Economic, Therapies and Medication**

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### **Introduction**

Health care refers to the maintenance, promotion or improvement of health via the diagnosis, treatment, rehabilitation and prevention of disease, illness, injury, and other physical and mental impairments in human being. It is the act of taking preventive or necessary medical procedures to improve the people, families or well-being. This may be done through surgery, the administering of medicine. Other alterations in a persons' lifestyle, these services are typically offered through a health care system made up of hospitals and health care givers (Alakilja, 2000). Health care services according to (Harman, 2014) means the furnishing of medicine, medical or surgical treatment, nursing hospital service, dental service, optometric, complementary health service any or all of the enumerated services or any other necessary service of character, whether or not contingent upon sickness or in health. This paper intends to examine cost of health care, what determine health care cost and its implication to health and illness.

Cost generally means an amount that has be paid or given up order to get something it is usually a monetary valuation of an effort, material, resources, time and utilities costumed, risks incurred, and opportunity forgone in production and delivery of a good or service in business, the cost may be one of acquisition, in which case the amount of money expended to acquire is as cost Uzechukwu, 2015 health care cost refers to the actual costs of providing Service related to the delivery of health care, including the costs of procedures, therapies, and medications. It also refers to the cost of production of health care service, for example in order to given a patient a ct scan, a hospital has to have purchased a scanner, pay a technologist to perform the scan and a radiologist to read it , pay for the hospital building itself, chairs in the waiting room, a receptionist at the information desk, and the parking lot outside, all of which are components of the cost of a scan.

However, cost of healthcare according to Brownle, and walsh, (2012) means different things to different people politicians talk about costs in reference to federal and state spending on health care. When hospital administrators and physicals talk about health care costs, they are usually referring to their cost of production, the money the spending on the resources needed to care for patients. Business leaders use the term health care cost when what they really mean is the price of insurance, or the amount they spend on their employees' health care insurance plans.

Price on the other hand is how much the hospital pays for the scanner, or how much an insurer pays that hospital for the patient to get the scan. In the U. S. price for everything from a CT scan to an office visit to a stay ICU care higher than anywhere else in the world. Within Nigeria and within the same community, different hospital can charge wildly different prices for the same service Brownle, et al, (2012)

According to Harman (2014) there are basically six types of healthcare namely:

1. Hospital input costs: the costs that a hospital incurs to provide care," this included the "variable costs" of everything it takes to treat an individual patient.
2. Hospitalization cost: the actual money that private insurer's, patients, or the government end up paying to hospitals in exchange for providing care.
3. Hospital charges: is essentially hospital's list price for service. It's these charges bear little relationship to the actual "hospitalization costs" for most patients.
4. Total cost of care: the amount that an insurer expends on health care in a year on behalf on one individual.
5. Health insurance cost: what employers and individuals pay annually in premiums to insurers for health care coverage?
6. Total cost of care for a population: is the total cost for each person in a population, all summed up.

**Other relative terms healthcare cost as listed by Haemon, (2014) are:**

**Direct cost:** this usually represents the cost associated with medical resource utilization, which include the consumption of in-patient, out-patient, and pharmaceutical services within the health care delivery system. Direct medical costs clued expenses for hospitalization, physician services, prescription drugs, over the counter drugs, skilled nursing care, diagnostic procedures, and other healthcare services apart from that obtained in the hospital.

**Health expenditures:** refers to the amount of money paid for the services, and from fees, which refers to the amount charged, regardless of cost. The amounts spent by individuals, groups, nations, or private or public organizations for total health care and/or its various components. These amounts may or may not be equivalent actual costs (health care costs) and may or may not be shared among the patients, insurers, and/or employers Harman, (2014)

**Health Economics:** the study of how scarce resources are allocated among alternative uses for the care of sickness and the promotion, maintenance and improvement of health, including the study of how healthcare and health-related services, their costs and benefits, and health itself are distributed among individuals and groups in society (World Bank, 2010)

**Charge:** these among asked for a service by a health care provider. It's contracted with the cost, which is amount the provider in furnishing the service. It is difficult to determine precise costs for May services and in such cases are substituted for costs in May reimbursement or payment formulas (often with the stipulation that the hospital's bookkeeping follow certain rules World Bank, (2001).

**Cost of illness:** this refers to the personal cost acute or chronic disease. The cost to the patient may be an economic, social, or psychological cost or personal loss to self, family, or

immediate community. The cost of illness may be reflected in absenteeism, productivity, response to treatment, peace of mind, quality of life etc.

**Hospital cost:** the expenses incurred by a hospital in providing care. The hospital costs attributed to particular patient care episode the direct costs plus a proportion of the overhead for administration, personnel, building maintenance, equipment, etc. hospital costs are one of the factors which determine hospital charge (the price the hospital sets for its services) (WHO, 2008)

**Indirect costs:** are the expenses incurred from the cessation or reduction of work productivity as a result of the morbidity mortality associated with given diseases. These losses are typically valued from either societal, individual, or employer perspectives (cutler, McClellan, Newhouse, 2011)

**Medical cost:** are inpatient visits, emergency department visits, outpatient visit, prescription drugs, medical equipment, and home health services. Non-medical costs include child care and travel expenses associated with receiving treatment and special education costs if cognitive function is impaired by the illness (Collins, 2008)

**The challenges the health care costing:**

Accurate cost measurement in health care is challenge as observed by Alakija (2000), first because of the complexity of health care delivery itself. A patient's treatment involves many different types of resources such as personnel, equipment, space, and supplies, each with different capabilities and costs. These resources are used in processes that start with a patient's first contact with the organization and continue through a set of clinical consultations, treatments, and administrative processes until the patient's care is completed. The path that the patient takes through the system depends on his or her medical condition. Existing costing systems, which measure the costs of individual departments, services or support activities, often encourage the shifting of costs from one types of service or provider to another, or to the payer or consumer. The micromanagement of costs at the individual organizational unit level does little to reduce total cost or improve value-and may in fact destroy value by reducing the effectiveness of care and driving up administrative costs.

**What determines the cost of healthcare?**

McPhail (2016) opined that health care spending is going up faster than the rest of the economy. Part of the reason health care spending is going up so price for everything from health care labour to drugs to CT scanners are skyrocketing. But the more worrisome reason for rising spending is the quality of high technology specially services recommended. There are more high tech imaging studies, more days in the IUC, more robotic surgeries than we did 40 year ago, or even 14 year ago. Sometimes that high-tech medicine leads to better outcome, but a lot of the time it does not – it just means there is more spending. Also money is wasted on new, expensive drugs that do not work any better than older cheaper medication. This amount to spending indiscriminately, yet when healthcare spending rhetorically becomes healthcare costs, it implies that overconsumption of useless, overpriced services is part of the problem of rising healthcare cost Bulu and Tomas (2006). The submitted the following among others are the reason for rising healthcare cost:

1. The population is getting older, sicker and fatter: as individuals get older, they tend to need more medical care. The baby boom generation is heading into retirement. Additionally, nearly half the Nigeria population has or one or more chronic conditions, among them asthma, heart diseases or diabetes, which drive up costs. And two-thirds of adults are either overweight or obese, which can also lead to chronic illness and additional spending.

Introduction of new drugs, technologies and services procedures, there is consensus among experts that technology is the most important driver of healthcare spending increases over

time. Installing and implementing electronic health records is costly. New technology may either increase or decrease health care spending, researchers generally agree that, taken together, advances increase or decrease in medical technology have contributed to rising overall health care spending. Medical advices can help get well, avoid disease and delay death, but they also drive up spending. Many new technologies come on the market after being tested only for safety or whether the new treatment is comparable to existing ones or even placebos. Patients and doctors often demand the newest treatments; even if there is little or no evidence that they are better. Prices for newer treatments are often higher than for the products they replace.

**Snowballing of spending:** another major challenge in anecdotal is the snowballing of spending that illness episodes and cause families to quality care. Misdiagnoses or incorrect treatment spending illness prolong illness episodes and cause families to repeatedly visit different providers for consultation that a tests and alternative. To worsen the situation, the poor do not have the insulation that a job with a formal company affords, so the more time spent “searching” for quality care, the more income they could be earning from their labour that is lost. Care is also idiosyncratic; patients with the same condition often take different paths through the system. Again the lack of standardization stems to some extent from the artisanal nature of medical practice-physicians in the same organizational unit procedures, drugs, devices, tests, and equipment. In operational terms, health care today might be described as a highly customized job shop.

**Tax breaks on buying health insurance:** the cost to patients of seeking care is often low. The majority of people with insurance get it through their job. The amount employers pay toward coverage is tax deductible for the firm and tax exempt to the worker, thus encouraging more expensive health plans with richer benefits. How that coverage is designed also plays a low deductibles or small office co-payment can encourage overuse of care, the report says. Increasingly, however, employers are moving toward high-deductible coverage as a way to slow premium growth and require workers to pay more toward the cost of care.

**Lack of enough information to make decision on medical care is best for use.**

Shannon, Joe and Thom (2012) opined that while medical journals, the internet and the poplar press are awash in health information and studies, professionals and patients find out that there is no broad standard for evaluating individual treatments, or how specific treatments compare with others. Even when evidences show a treatment is not effective, or is potentially harmful, it can take a long time for that information to actual change how doctors practice or what patients demand, the report says. Additionally, Nigeria vary widely in how they view end-of-life issues, with some desiring every possible medical intervention to stave off death in situation, no matter how small the possibility of success.

**Supply and demand problems and legal issues that complicate efforts to slow down**

**spending:** the issues of malpractice premiums and jury awards are part of what drives spending. A larger problem, although hard to quantify, is “defensive medical” – when doctors prescribe unnecessary tests or treatment out of fear of facing a lawsuit, the report says. Fraudulent billing or unnecessary tests by medical providers seeking to “game the system” are another concern.

**Presence of co morbidity:** there is consensus that more chronic diseases present are typically associated with greater health care costs. There is consensus that multi morbidity is associated with substantially higher care costs. But important further considerations for healthcare policy are the patterns of health services utilization among people with multi morbidity Mc Phail, (2016).

**Sources of healthcare cost in Nigeria:**

Currently healthcare in Nigeria is borne by a combination of government's funding, out of pocket payments, donor funding, and health insurance. Because government investment in healthcare, as seen in annual budgetary expenditure, is abysmally low, it has resulted in a situation in which the system is characterized by extensive out-of-pocket payments by already impoverished patients, limited insurance coverage, and low donor funding, most of which end up being spent on the high costs of maintaining foreign expatriates (Cutler, McClellan and Newhouse, 2011) the above scenario is compounded by limited institutional capacity, endemic corruption, unstable economic and political landscape; and with the on else squabbles among the various health professions, are all factors that contributed to ensuring that brief illness continues to ravage the people pocket and make individuals die cheap. The authors listed some of the following sources of healthcare cost among other:

**Out-of-pocket payment (OOP):** the most common source of healthcare financing is OOP from the households. This is payment for health care (user fees) at the point of service and about 70% of healthcare payments in Nigeria are made out-of-pocket. In 2007, OOPs increased from 92.7 to 95.9% of private expenditure. OOP has remained the dominant mode of financing healthcare in developing countries and a major limitation, if an expensive healthcare service is to be accessed. The difficulty of paying out of pockets put most Nigeria in a great deal of financial risk and restricts them from having direct access to health care when they need it. Majorities are even forced to sell their assets or go into debt in order to pay for health care costs (Nzesylva, 2013).

**National health insurances scheme (NHIS):** established by the federal government of Nigeria under Act 35 of 1999 with the aim of improving access to health care and reducing the financial burden of out-of-pocket payment for health Carew services became fully operational in 2005; where patient pay only 10% of the total bill. However, world bank survey in 2008 reported a poor coverage of about 0.8% of the population by NHIS because the Act that set it up made it optional and this resulted in many Nigerians being out. However, bill for an act to repeal the (NHIS), and enact the national health insurance commission and to ensure that more effective implementation of a health insurance policy that enhances greater access to health care services by all Nigerians is pending in national Assembly. Also is the national health care which pledges a budget of ₦60 billion (\$380 million) for primary healthcare each year, and promises to ensure the provision of medical care for the most vulnerable; such as children below the age of five, pregnant woman, adults above the age of 65 and people with disabilities and help extend primary healthcare to 60% of Nigerians living in hard-to-reach rural communities is yet to be passed by the national assembly (Nzesylva (2013).

**Tax-based revenue:** tax-based systems are health cost borne by the government where revenues are the main source of health care expenditure. The health system is generally funded from federation account to the states and LGAS. Both of which also generate about 20% internal revenue from taxes, rates and levies. The allocation of federal revenues is fixed by the revenue mobilization allocation and fiscal commission and the allocation formula assigns 48.5% to the federal government, 24% to the states and 20% to local government, with 7.5% retained for "special" federally determined healthcare projects.

**Donor funding:** this refers to financial assistance given to developing countries to support socioeconomic and health development and may be in the form of loans or of aid grants. Debt relief attached to financing of programs for achieving the MDGs which is a form of donor funding has also contributed greatly to the financing of PHC in Nigeria. Some of the funds released from the debt relief agreement were used to sponsor free distribution of insecticide treated bed nets and anti malarial drugs to pregnant woman and children under five. There are major challenges of an effective coordination of the funds and tracking donor resource flow.

**Pooling arrangements:** pooling is essentially the accumulation and management of prepaid health care revenue on trust for the population; ensuring that cost of health care is distributed among all the members of the pool. One major means of pooling is through health insurance.

**Social health insurance:** social health insurance stands for a pooling of health risks, in order for the participants to get benefits due to the uncertainty underlying ill-health occurrence and payments for treating such ill-health. It is a system of financing health care through contributions to an insurance fund that operates within the framework of government regulations. It only covers 4-5% of Nigerians (largely federal government employees): urban self-employed; rural community; children under-five; permanently disabled persons; prison inmates; tertiary institutions and voluntary participants; and armed forces, police and other uniformed services. membership with the formal sector SHIP is mandatory for federal government employees; buy-in by the states remains low; only cross river and Bauchi state have enrolled and have said to have achieved full coverage; whereas, Abia, Enugu, Imo, Gombe, Lagos, Ondo, Oyo, Jigawa, and Kaduna states that have indicated interest are yet to come on board Collins, (2008).

**Community-based health insurance:** community based health financing is referred to as a mechanism, where by households in a community finance or co-finance the associated with a given set of health services, at the same time participating in the management of the community financing scheme and the organization of the health services. It is designed for people living in the rural area and people in the informal sector who cannot get adequate public, private, or employer-sponsored insurance. Usually, it is voluntary compared with social health insurance schemes which tend to be mandatory. CBHI has been piloted on a small scale in Anambra, Lagos and Kwara states. However, low enrolment rates greatly undermine the sustainability of CBHI as it is affected by factors such as trust by the community in the organizer or manager of scheme, attractiveness of the benefit package, affordability of the premium, and the quality of the health care.

**Private health insurance:** this is directly and voluntarily funded by prepayment by the insured members. In Nigeria an estimated 1 million people are coverage in the PHI and this is <1% of the population. PHI can also involve some form of medical retainer-ship. This is when employees of an establishment receive medical care from stipulated health facilities at a cost to the employers' Mc Phail, (2016).

### **Financial implications of health care cost to health**

Health care cost correlates better health: the cost of healthcare services is the paramount determinants of health. Cost to some extent, income and wealth directly support better health because wealthier people can afford the resource that protect and improve health. In contrast to many low-income people, they tend to have jobs that are more stable and flexible; provide good benefits, like paid leave, health insurance, and worksite wellness program; and have fewer occupation hazards. More affluent people have more disposable income and can more easily afford medical care (Mc Phail, 2016).

**Increasing numbers of adults in all income groups are not getting needed health care because of cost:** exorbitant health bills can be a barrier to a health society. The rising costs of health care inadequate health insurance are straining limited family budgets and leaving people less protected. Cost of they did not go to a doctor or clinic when sick; had not filled a prescription, skipped medical test, treatment, or follow-up visit recommended by a doctor, or did not see a specialist when a doctor or the respondent through it was needed.

### **Delay in getting medical care**

High cost of health care cause people to delay or avoid seeking care when conditions are relatively inexpensive to treat before them, serious and costly. This neglects the long-held nations of the need for chronic care management and preventive care to promote healthy and productive, as well as control long-term; other factors may include income and social status; social support networks; education, employment and working conditions, social environment, physical environment, personal health practices and coping skills, health service, gender world bank (2010)

- The costs of healthcare deny patients from utilizing available health care services. Low income earners are the worst affected. A huge percentage of clients reported not having seen a dentist in more than five years, compared with percent of adults with family high income. Their difficult living circumstances often preclude active recreational opportunities for regular exercise, and the cost of gym memberships or exercise equipment is often prohibitive.
- balu and Thomas, (2006) opined that high health care cost is the cause of poor health among low-income Nigerians. They may also face financial and other barriers to obtaining assistance with lifestyle changes, such as smoking cessation or assistance with alcohol and drug dependence. Thereby not use for available rehabilitative healthcare services.
- Income and wealth are part of a complex web of social and economic conditions that affect health over a lifetime. These conditions include education, employment; family structure e.g. single motherhood. Healthcare bills are on the increase. This make it difficult for individuals to pay for essential healthcare services and this culminates into illnesses in the society.

#### **Financial implications of health care cost to illness**

- Increased chronic diseases: there is considerable evidence that exposure to costs can have a negative effect on ability of adult with chronic conditions to effectively manage their diseases. Anecdotal report showed that patients with any one of four chronic conditions: high blood pressure; heart diseases; diabetes; or asthma, emphysema, or other lung diseases. Among adults with chronic health problems who regularly took prescription drugs, more than out of five who had gaps in reported skipping doses of medications or not filling prescriptions for their chronic conditions because of cost.
- May people must travel miles to receive specialty care for chronic diseases, sometimes without reliable and affordable transportation to health care providers. This increases the cost of obtaining health care services beyond the reach of low income patients.
- Costly healthcare bills impact negatively and increases sickness among the populace. People with low incomes tend to have more restricted access to medicinal barriers to care, are more likely to be uninsured or underinsured, and face greater financial barriers to affording deductibles, co payments. Partly because of reduced access to care and reduces affordability, low-income patients are less likely to receive recommended health care services, such as cancer screening tests and immunization hence illnesses that could be cured by medical services results in fatality in many cases.
- Healthcare cost increases the economic impact of diseases and injury on the population; health services and goods may be paid for from savings or additional borrowing or the sale of household assets, and thereby lead to depleted investment in (physical, financial and human) capital and plunges the families into poverty, sickness and death.

- Cost of health cost could trigger stress in an individual and the complications. The stress associated with financial adversity is believed to have harmful biological effects on the body. Stress is thought to affect hormones and the health of the immune system phenomenon called allostatic load, causing damage to organs and increasing the risk of diseases over time including depression O’Neill, (2005)

**Hypotheses testing**

The null hypothesis states that there is no significant financial implication of health care cost on the health of the people. To test the hypothesis regression analysis was performed on the data, (see table 1).

**TABLE 1.**

**Regression of the financial implications of health care cost on the health of the people.**

Model	R	R-Square	Adjusted R Square	Std. error of the Estimate	R Square Change
1	0.75a	0.57	0.56	1.64	0.57

**\*Significant at 0.05 level; df= 200; N= 198; critical R-value = 0.197**

The table shows that the calculated R-value 0.75 was greater than the critical R-value of 0.197 at 0.5 alpha level with 198 degree of freedom. The R-Square value of 0.57 predicts 57% financial implications of health care cost on the health of the people. This rate of percentage is slightly high and positive. This therefore means that there is significant financial implication of health care cost on the health of the people. This result is in agreement with the opinion of Mc Phail, (2016), who observed that health care cost correlates better health and that the cost of healthcare services is the paramount determinants of health; cost to some extent, income and wealth directly support better health because wealthier people can afford the resource that protect and improve health and finally, more affluent people have more disposable income and can more easily afford medical care.

**Conclusion**

Health care cost refers to the actual cost of providing services related to the delivery of health care, including the cost of procedures, therapies, and medication, the cost of provision of health care services including consultation, pharmacy, musing and other health care givers. Healthcare cost is influenced by new technologies, services and procedures, new expensive and overpriced drugs and rising rate of chronic diseases with co morbidity. Implications to health and illness are cost determines the utilization of variable medications and services for prevention promotion and rehabilitation to a sick or healthy society. Financial implication of health care cost has remarkable impact on the health of the people.

**Recommendations**

Recommended that the government and other stakeholder should adopt strategies to control healthcare cost, reduce variations in care and deploy cost effective technology to promote healthy living.



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