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IMPACT OF ACCESS TO BASIC HEALTH CARE SERVICES ON INFANT AND CHILDHOOD MORTALITY IN KATSINA STATE, NIGERIA

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Abstract

Infant and childhood mortality constitutes a global public health challenge in Nigeria and most other countries within Sub-Saharan Africa. This is essentially as a result of astronomical rise in population growth, coupled with a drastic reduction in living standards due to multi-dimensional poverty, thereby making it increasingly difficult for most segments of the population to access quality health care that could cure major disease ailments and sustain their lives. This study is therefore set to portray the level of access to basic medical services, especially as applicable to infants and children in Katsina State, Nigeria. In doing so, the researchers gathered and analysed data from both primary and secondary sources to portray the level of infrastructural facilities, coverage indicators, personnel, funding and other logistics which may aid or mar health care service access in Katsina as well as the Nation at large. On the basis of the findings, the researchers recommend increased budgetary allocation to the health sector to improve access, sustained production of medical and health personnel from our tertiary institutions/ special incentives to discourage brain drain and public enlightenment to our local population on the desirability of seeking modern healthcare among other measures.

Keywords: Access, Infant, Childhood, Mortality, Katsina State

Introduction

One of the inherent traits in all living organisms including humans is mortality. In other words, we die someday. One reason or the other is responsible for this. It is always a sad event when innocent babies and children pass away. This is more so because a newly born child often experiences a high degree of fragility and dependency, which is often translated into high infant mortality rates, that is, the number of deaths occurring during the first year of life per 1000 live births (NDHS, 2018). Equatorial Africa worst hits by this astronomical rate of infant and child deaths. According to a UNICEF publication index (2022), it could be as high as 80 and 78 per 1000 births as obtainable in Sierra Leone and Central African Republic respectively or as low as 1.5

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and 1.8 deaths per 1000 births as found in Iceland or Norway. Grant (1994) reports that in that year, Nigeria had an infant mortality rate of 114 per 1000 births. But presently the rate shows an improvement of 72 deaths per 1000 (UNICEF, 2022). That notwithstanding, the above figure is still very high and worrisome because the country is still among the four worst nations in Africa, only better than Sierra-Leone, Central African Republic, and Somalia.

Also, death within the first five years of birth, otherwise known as child mortality is of importance. It is during these first five years that the physical, social, psychological, emotional and intellectual development of the child is formed. This implies that the child's genetics and the environmental factors can determine his/her potential to thrive or perish (Wikipedia, 2022). This was partly the rationale for the formation and proclamation of a global initiative called the Millennium Development Goals ((MDGs). As at the time it was launched, one of its main objectives was to reduce infant and child mortality by at least two-thirds by the year 2015. But taking a retrospect on the aforementioned aim, we will understand that as a result of our day-to-day experiences, we are definitely where we ought to be as regards mortality control. This is essentially because the rate of deaths is still alarming despite progress made. For instance, worldwide, the UNICEF publication index (2021) reports that children possess a brighter chance of survival today than in the last three decades as the probability of dying before the age of five was 1 in 11 livebirths whereas in the year 2020, it was 1 in 27 live births.

In percentage terms, the annual rate of reduction in global under five mortality changed from 1.9 in 1990 to 3.6 percent in the year 2000. In absolute terms, in 2020, the report has it that five million (5.0m) children of less than five years died. The implication of the above figure shows that virtually on a daily basis that very year, thirteen thousand, eight hundred (13,800) children lost their lives. (UNICEF Publication Index, 2021). This is still a very scary picture because nobody wants to loose a precious child. Moreover, many women do not conceive as quickly as they would have loved to. Therefore, loosing such young ones soon after birth is a very horrible experience.

Indeed, one of the achievements of the 20th century according to Stock Well and Wicks (2017) have been most keenly reflected in the profound reduction in the risk of dying during infancy and childhood stages; a reduction that is still taking place in most countries. At the same time, it is abundantly clear that this progress is not being shared equally by all segment of the population and this has far reaching disastrous, health, social and economic consequences.

From a historical perspective, early in the beginning of the 20th century, (NDHS, 2018) posits that infant mortality rate has been traditionally regarded as a very sensitive index of differences in the level of social and economic well-being among the various subgroups. They pointed out that it is the most sensitive index we possess of social welfare and sanitary conditions and that the economic and social conditions prevailing in the population are inversely related to mortality levels in general but especially to child mortality. Subsumed in this subject matter of infant mortality according to Wikipedia is the issue of neonatal mortality which is the probability of dying within the first 28 days per 1000 live births and Perinatal mortality which is the probability of dying within the first week of life. Most often, Perinatal deaths happen as a result of premature births or defects during conception or birth while Neonatal deaths are reflected in the types of care the hospital or health facility is providing as well as complications and other anomalies during birth. As at 2011, the African Leadership for Child Survival (2012) posits that Sub -Saharan Africa has the highest risk of death within the first month of life and is also among the regions showing the least progress as

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regards providing remedial measures. Also, it points out that the region accounts for 38 percent of global neonatal deaths they argue, is responsible for about a third of under-five death worldwide.

Health facilities in Nigeria

National Bureau of Statistics (2021) data has continuously shown that our health facilities in this country are not evenly distributed for example; the urban centers have more heath facilities than the rural areas while states such as Kebbi, Sokoto, Kano, Bauchi, Katsina Jigawa and Borno have more dispensaries which treat minor ailment than general hospitals. In 2019, Makinde et. al. (2019), postulate that the statistics produced by the Federal Ministry of Health (FMH) put the total number of health facilities as 40,821. This consists of 34,675 primary health care centers, 5,780 secondary health care facilities and 166 tertiary health care centers. Private health care centers hovers around 2,600. They point to the fact that although the National Health Insurance Scheme (NHIS) was introduced by the Federal Government led by President Olusegun Obasanjo in 1999 which aimed at facilitating a universal health coverage and access, it has been discovered that only about 5% of the population are enrolled. It is estimated that more than 120 million citizens presently do not have any form of health insurance to ensure a better health care for them and their children. Commenting further, Makinde et. al. (2019) posits that the statistics clearly indicates that primary health care facilities make up 88% of our health centers in Nigeria while secondary health care is 11.75%. Tertiary health care center consists of only 0.25%. There are more government owned facilities than private - 67% as against 33%. Secondary health centers are mostly private owned. The ratio of public to private health facilities is much higher in Northern part of the country than the Southern part. The distribution of health care facilities across geo-political zones falls short of the recommended ratio. Consequently, more investment is required in this area. Makinde (2019).

In his own contribution to the subject matter, Owoseye (2019) in his investigation published in Premium Times has it that official statistics show that only one medical doctor attends to 4,845 patients in Nigeria. He cited the Medical and Dental Council of Nigeria (MDCN) who put the number of registered medical practitioners at 42,845 made up of registered doctors, dentists, and alternative medical personnel to a population of almost 200 million then. Out of these number, 39,912 are medical doctors, dentists were 2,901, while 32 were alternative medical givers. From the figures portrayed, Nigeria medical doctors are eight times below the ratio recommended by the World Health Organization of one doctor to 600 of the population. This data does not include those who have left Nigeria for greener pastures abroad. The exodus of our medical practitioners is a burning issue of National discourse since they get frustrated about the working conditions in the country such as lack of adequate equipment, working conditions and very poor renumerations. The report also has it that since the establishment of Nigeria Medical and Dental Council in 1966, only 91,070 registered with the body consisting of 86,722 medical doctors from inception to 2019, 4,357 dentists and 32 people who specialize in alternative medicine otherwise called traditional medicine/herbal homes. However, MDCN could not provide the total number of medical doctors trained in Nigeria but practicing outside the country but it is estimated to be in the neighborhood of tens of thousands. An associate Professor of medicine, Francis Faduyile in an interview with premium times on the 4th day of February 2021 listed poor renumerations, poor facilities, inconducive working conditions, lack of job satisfaction as push factors engineering mass emigration of medical personnel which includes medical laboratory scientists, Radiographers, Nurses, Pharmacists and so on. He pointed out that a doctor is supposed to see a maximum of 20

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patients a day but in Nigeria, they attend to about 150 patients daily and many of them get completely exhausted by the time they clock 50 years of age. Furthermore, he said that a nurse is supposed to attend to not more than five patients but ends up attending to about 50 patients in a ward. The heavy work load notwithstanding, he alleged that Nigerian doctors collect just about 10% of what they are entitled in other nations that prioritize their health care.

The World Health Organization (2021) identified critical shortage of personnel, inadequate skill, and uneven geographical distribution of health work force as major impediments towards achieving sustainable development goals as only 5 out of 49 countries categorized as low-income economies by the World Bank met the minimum threshold of 23 doctors, nurses and midwives per 1000 of the population that is necessary to deliver adequate child and maternal health care needs. Currently, Nigeria ranks high among countries with maternal and child mortality rates. He then concluded that even though some pregnancy related services can be given by middle health care workers, they do not count for effective and reliable work force. The shortage of professionals is impediments to life saving interventions leading to increased mortality of our children. (WHO 2021).

Buttressing the above assertion, Adebayo (2017) was of the opinion that government's efforts at providing health care at local, state, and national levels have not made any tangible impact on the state of health of majority of Nigerians. One of the major reasons for this, according to him is lack of access to health care facilities. Both pre-natal and post-natal care guarantees the child's right to life and is related to lower infant and child mortality rate (NDHS, 2013, Jinadu, et al, 2018). No matter how simple or complicated a child's problem may be, there should be easy access to the type of health care that is required. Many of our rural communities are cut off from valuable Medicare services and even access to public transport is difficult many mothers and children have died from preventable ailments like diarrhea as a result of this factor.

The adequacy of health care delivery may be assessed by examining the number of available institutions and the level of health care that they provide and then compare them with the population that are supposed to make use of such services. The ratio of population vis-à-vis the medical personnel needs to be examined also. The distance between the health institutions and where the inhabitants live could be a factor in accessibility. The number of health institutions in Nigeria has increased over the years but the levels of care in these institutions are generally poor. Federal office of statistics now called the National Bureau of Statistics data shows that more than half (½) of these health institutions are owned by local governments and devote to providing primary health care. One quarter (¼) of these institutions are privately/religious bodies owned and they provide secondary health care along with some state-owned establishments. They also provide support for primary health care. Only a few of the institutions (1.29%) are owned by Federal Government and these offer care at tertiary level, concentrating on training, research and management of specialist or rare diseases. (NBS 2022).

It is inconceivable that any state in Nigeria should have one doctor serving more than 10,000 people on the average. Uche (2022) who is equally the current president of the Nigeria Medical Association posits that at present, Nigeria can only boast of roughly 24,000 doctors catering for more than 216 million citizens. This, he attributed to the brain drain syndrome where our skilled medical personnel migrate to foreign countries for greener pastures. The best doctor to patient ratio is reportedly found in Lagos State where it is about 1:1000 Doctor/patient ratio. Even the figure is not acceptable by international standard. According to Uche, despite the national average

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of doctor/patient ratio many states are terribly worse to the extent that one doctor is available to treat about 30,000 patients in some states in the southern region whereas one doctor is available to attend to about 45,000 sick people in many states in the Northern region. Also, where doctors are available the reality is that a great proportion of the population cannot afford to consult them. Furthermore, he pointed out that in many rural communities, sick people have to travel for more than 30 kilometers from their places of residence to get to a medical facility and thus access is jeopardized. (Uche 2022). Babajide (2021) reports that even though the WHO prescribes a ratio of 1 doctor to 600 patients, the case in Nigeria is far from it and subsequently projected that it will take the next 120 years to have the adequate number of doctors she requires.

Experience in the field suggests that the issue of low patronage is as important as access. Although there are more trained health workers at the grassroots level now and more drugs are available patronage is still low (Adebanjo, 2017). Some of the reasons for this situation are:

a. The high cost of medication
b. The low level of rapport between some health workers and local people
c. The poor state of existing facilities including non-availability of required drugs in some cases.

Self-diagnosis and self-medication are the cheaper options for the masses but this exposes them to incorrect diagnosis, wrong dosage and fake drugs. Without regular maintenance, health care facilities tend to run down quickly. The lack of total commitment at various levels of government and the diversion of funds earmarked for health in some cases has rendered most clinics ineffective. They can no longer render effective health services which are their statutory responsibility in Nigeria.

Talking at the global level, Bellamy (2000) puts forward that in 1990, leaders attending the world summit for children pledged to ensure universal access by women to maternal health care by the year 2000. To what extent has this been achieved in developing countries and more specifically in Katsina state, Nigeria where health infrastructure is relatively weak? Many women still receive little or no antenatal care. Bellamy (2000) posited that many women in the developing world received no antenatal care at all. Conclusively, she pointed out that insufficient maternal care during pregnancy and delivery is largely responsible, each year for nearly 600,000 maternal deaths and an estimated 5 million infant deaths either just before or during delivery or in the first week of life.

Health facilities in Katsina State

A perusal at the health infrastructure in katsina state is not encouraging to say the least. This is because the number of hospitals, maternities, health centers, clinics and dispensaries are not adequate compared to the huge population scattered in the 34 local government areas of the state. As at 2022, according to Katsina Health Care Kingmakers site (2018), the population of Katsina was 10,368,500, occupying an area of 24,235km^2 and a population density of 427.8km$^{2.}$ Health Management Information System (2021) which is a specialized department in the Katsina State Ministry of Heath concerned with the collation, storage and dissemination of population and health information stated that presently, katsina state has a total of 1,514 state/ public owned medical facilities and 45 private owned hospitals throughout the state, which is quite insufficient compared with a population of above ten million inhabitants.

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The worse scenario is even in the area of medical personnel supposed to man those hospitals. In the year 2018, the health resources indicators of the Katsina state Ministry of Health indicated the following as the health personnel available with the support staff.

Table 1: Health Resources Indicators Katsina State

S/N	Health Personnel	Number
1	Doctors	89
2	Nurses	373
3	Midwives	298
4	Community Health Officers (CHO)	1,520
5	Environmental Health Officers (EHO)	782
6	Environmental Health Assistants	497
7	Senior Community Health Extension Workers	1,232
8	Junior Health Community Extension Workers	1,943
9	Dental Health Technicians (DHT)	551
10	Dental Surgery Assistants (DSA)	415
11	Laboratory Assistants/ Technicians	78
12	Nutritionists	506
13	Health Attendants	747
14	Traditional Birth Attendants	103
15	Drivers	144

Source: Ministry of Health, Katsina State (2018)

Since 2018, the government of Katsina State made spirited efforts to beef up its manpower in the health sector by engaging many professionals but as they keep employing, many are still leaving the service mostly as a result of poor renumeration and widespread insecurity especially in the rural areas resulting in manpower shortage. For instance, taking the most important medical personnel in the health sector as our point of reference, a public affairs commentator, Tijjani Ibrahim (2023) writing for the Daily Trust Newspapers said that three years back, Katsina State could boast of up to 300 doctors working for the state service while 25 others worked with the Local Government Areas. But presently, the numbers have reduced drastically to 110 for the state and 16 in the local governments. This worrisome scenario, he attributed majorly to the high rate of banditry and heightened insecurity which necessitated a mass exodus of medical personnel out most local governments. Secondly is migration abroad to countries of Europe, America and Asia for better pay. Even those that remain behind opt for Federal Hospitals where there are greater opportunities and pay package.

Ibrahim (2023) pointed out that out of the 110 doctors available, 60 of them are in hospitals and clinics within the state capital which is made up of two adjourning local governments, namely, Katsina and Batagarawa. The state-owned hospitals within the capital city are the General hospital katsina, Turai Yar'adua maternal and child hospital, General Amadi specialist hospital Batagarawa and the Psychiatric hospital and eye center Katsina. The remaining 50 medical doctors are distributed across the rest of the 32 local government areas whereas 16 attached with the state primary health care service were scattered within eight local government areas of the state.

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Daily trust reported that from their investigation, 9 local governments within Katsina State have no presence of medical doctor in any of their facility, with Funtua zone being the worse impacted as six out of its eleven local governments have no medical doctor on ground at its clinics. Consequently, some units have shut down or about to be closed. This is because the number of doctors and other health workers which is grossly inadequate compared to the healthcare needs of the citizens and people inhabiting Katsina State, forcing the closure or the offering of limited services in some units or departments of hospitals. For instance, in Katsina general hospital, regarded as the best and most equipped secondary medical facility within the state, it was reported that in the obstetrics and gynecology unit where pregnant women go for antenatal services up to delivery and after birth checkups, there are only three doctors available in the section to attend to numerous women. At a sage, the hospital had no incubator which takes care of babies born prematurely and most often the doctors refer them to tertiary health facility such as the defunct Federal medical center, now upgraded to Federal Teaching Hospital, Katsina. This hospital is known to charge higher fees than the state-owned medical facilities and as a result, not many families can afford the medical bill there.

The scenario is even worse in the local government areas bedeviled with incessant terrorist attacks. For example, in Dutsinma hospital, one doctor is known to go round different units and do all the shifts, with no one taking over from him. As a usual convention or within the code of practice, a nurse or midwife is supposed to take care of 4 patients at a time but in katsina state, it is common for a nurse looking after about 40 patients at the same time which is 10 times the recommended rate. It is obvious that in this situation, they cannot render quality service effectively and efficiently.

Buttressing the above view Umar (2023), writing about Katsina State branch of the Nigerian Medical Association (NMA) and more specifically on the brain drain in the health sector between 2020-2022 posited that that number of medical doctors decline by almost 50%. He cited the views of the Katsina State Chairman of NMA, Dr, Adamu Saminu in his interview on channels television on August, 8 2023 that from January to august 2023, nine doctors resigned from the services of the state's Turai Yar'adua hospital alone and as a result, they had to shut down some units and concentrate on only the most essential services where the manpower is available and can cope with. Dr. Saminu pointed out that when he took over office as the chairman of medical doctors' union in Katsina State in 2021, the total number of doctors were about 700 in size with 352 working under the state health management board, while 270 were staff of the then Federal Medical Center, now converted to a Teaching hospital. Also, 17 of the doctors were working with Babbar Ruga National Obstetrics Fistula Care Center, whereas 18 were engaged with Katsina state primary healthcare development agency. The situation presently, that is within the year 2023, according to the statistics available, the Federal Teaching hospital, Katsina, has a little over 307 medical doctors, the state has a cumulative of 257 doctors as against 352 in 2022, implying that more than 90 doctors left the services of the state within one year. The number of doctors however appreciated at Babbar Ruga National Obstetrics Fistula Center because they now have 25 doctors. In the primary healthcare center, he reported that 3 doctors have just resigned their appointment, remaining just 15 doctors. Before this year (2023), there were three pediatricians, specializing in infant and children's health working with the state government at General Hospital, Katsina, but presently, only one is on ground. Also, previously, there were 3 radiologists but now only two are still there.

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Same with gynecologists who were previously 6 but now, only two are at work at the General Hospital, Katsina.

The coverage indicators obtained from the Katsina State Health Management Information System regarding some essential aspects of the population's health, especially those of pregnant mothers and their children aged below five years for 2021 can be summarized as follows;

Table 2: Coverage Indicators Katsina State 2021

S/N	INTERVENSIONS	PERCENTAGES / FREQ
1	Population served	65%
2	Ante- natal coverage	52%
3	Frequency of ANC attendance	4.1 visits
4	Supervised births by trained health personnel	31.9%
5	Supervised births by traditional birth attendants, etc.	68.1%
6	Coverage by primary health care (physical) facilities	60.0%
7	Physical accessibility/ utilization of PHC facilities	< 20%
8	Physical accessibility of referral facilities	47.0%
9	Financial accessibility to (quality) referral facilities	14.8%
10	Coverage of LGA by HIV/AIDS screening centers	47.0%
11	Coverage of LGA by private health institutions	45 registered in 34 LGA
12	Coverage of children <5yrs with insecticide treated mosquito nets	0.8%
13	Availability of essential drugs at PHC facilities throughout the year	30%
14	Children under 1 year fully immunized with recommended vaccines	36%
15	BCG < 1 year	36%
16	DPT3 < 1year	25.3%
17	Polio4 > 1 year	28.6%
18	Measles < 1 year	46.1%
19	Special NPI (OPV) children <5 years immunized	42%

Source: Health Management Information System. Katsina State (2021)

Funding the health sector in Nigeria.

As regards the issue of funding to the health sector, the World Bank and World Health Organization (2021) reports that the two International Organizations recommended that countries must increase spending by at least one percent of their Gross Domestic Product (GDP) if they are to get close to the Sustainable Development Goals (SDGs) as lack or inadequate quality health care is esthetical to health population and subsequently economic prosperity of nations. This is because they will be more vulnerable to disease infection and the resultant fatality.

In specific terms, Muanya (2021) has it that the World Health Organization (WHO) earlier made a proclamation as regards improved funding of the health sector. In 2001, African leaders had a meeting in Abuja, the Nigeria's capital city and jointly agreed to dedicate at least 15 percent of their yearly national budget to Health. That was in April 2001 and most leaders of the continental

association known as African Union (AU) were in attendance. But the breakdown of even that year's (2021) appropriation/budget in Nigeria as presented to the National Assembly showed that only 592.16 billion was proposed for health out of a total budget of 13.082 trillion naira, representing about 5.3 percent. This was in spite of our rising population and the covid -19 pandemic that was still wreaking havoc then. The above allocation was a sharp contrast to what was given to the health sector in South Africa for the same year. South Africans allocated 12.5 percent of their total budget. In monetary terms it amounted to 229.7 rand, ($13.78 billion) which is equivalent to 6.89 trillion naira, and about 11 times our own allocation. This is despite the fact that they have a smaller population of about 67.7 million inhabitants compared with Nigeria that answers the "giant" of Africa and Africa's largest economy in terms of GDP. Would you then wonder why we have a high rate of infant, child and maternal mortality in Nigeria? Would you wonder why our quality of life is low with low life expectancy of just about 52 years? Would you wonder why most of our political cum economic elites, shuttle endlessly abroad in the form of medical tourism whenever they have medical challenge. Some women even travel to countries of Europe, America, Asia, and Middle East just to deliver babies. The worst of it all is that they sojourn to some African countries where they feel have better and more reliable health infrastructure like South Africa, Kenya, Tunisia, Algeria, or Egypt. This scenario does not speak well of our country, Nigeria. (Muanya, 2021).

To elucidate on the poor funding of our health sector over the years leading to decay in our health infrastructure which was a total deviation from the 15 percent health budget agreed upon by leaders of member states of African Union, a research was carried out by Adebisi et. al. (2020) and the figures are better illustrated in form of a table.

Table 3: Table showing the funding of Nigeria's Health Sector from 2014 to 2020.

Year	Total budget (in billion naira)	Total Health Budget	% Health Budget	15% of total budget (in billion naira)	Gap needed to meet Abuja declaration
2014	4695 .19	339.38	7.23	704.28	364.90
2015	5067.90	347.26	6.85	760.19	412.93
2016	6060.48	353.54	5.83	909.07	555.53
2017	7441.18	380.80	5.11	1116.18	736.02
2018	9120.33	528.14	5.79	1368.05	839.91
2019	8830.00	372.70	4.22	1324.50	951.80
2020	10594.36	463.80	4.33	1589.15	1125.35
				Total =	**#4.99 trillion**

Source Adebisi (2020)

Impact of access to health facilities on infant and child mortality.

It is important for us to emphasize that during a child's early years, low birth weight, recurrent illness, lack of psychological stimulation, poor nutrition and stresses of poverty can lead to poor health, lowering intellectual behavior and social activities. These are preventable losses for which solutions are known. A child whose mother has access to the care and services she needs during

pregnancy and childbirth, a child born into a community with competently staffed and adequately stocked primary healthcare Centre, where information about nutrition and help from common ailment and infection are available will have a low level of mortality rate all things being equal. The differences in the general level of mortality in infants and children as you go from one region to another are evident. Even though the rates are generally speaking, high, this made the so much enchanted health for all by the year 2000 a mere fantasy. The critical problems as portrayed above shows that all is not well with our health system in Nigeria. This lack of access to health facilities which is mostly as a result of poor funding of the sector and lack of adequate manpower will make the United Nation's sustainable development goal of achieving an infant mortality of at most 15 deaths per 1000 child births by the year 2023 in all countries of the world, a mere utopia if drastic measures are not taken to reverse the trend.

Recommendations

In order to improve access to medical facilities by mothers which in turn will reduce in the rate of infant and childhood mortality, the following steps should be taken;

1. The government at all levels namely, the federal, states and the local government authorities should as a matter of urgency increase the budgetary allocation to the health ministry to be in tune with the global standards. This will facilitate the construction of more health infrastructures such as hospitals, clinics, dispensaries and medical centers in all nooks and crannies of the federation to improve access.
2. The government of the federation should consider giving subsidies to indigent citizens as far as medical issues are concerned, especially the diagnoses, treatment and procurement of drugs. The is because of the prevailing high rate of poverty among vast segment of the population.
3. A special scholarship scheme should be put in place for people that want to read medicine and allied courses such as nursing, pharmacy, radiography , medical labouratory science, etc so that enough manpower would be produced to cope with the very astronomical rate of population growth in our country of more than 200 million people.
4. In order to curb drain characterized by the much touted "japa" syndrome in which our qualified medical professionals are leaving the shores of the country abroad in droves, we suggest that they should be placed on a special salary structure and given various incentives to make them very comfortable. Their working and residential apartment should be furnished properly coupled with generous promotion scale.
5. The traditional rulers, local chiefs, educated and political elite, and religious leaders have the important role of enlightening the citizens, especially the local population on the need to go to hospital whenever they or their children are sick to get quality care. They should encourage pregnant mothers to go for antenatal care as and when due and also immunize their babies as recommended.
6. Non-governmental organizations and philanthropists within and outside the shores of this country should consider financing specific areas in the health sector since the government alone cannot bear the burden alone.

Conclusion

Easy access to basic health care services is of paramount importance to efficient health care delivery to any population. For infants and children whose immune systems are not yet fully developed to fight diseases, it becomes more urgent to have access to qualified medical professionals in health facilities of close proximity for essential care. This will not be possible if the

perceived bottlenecks hindering effective service delivery by the hospitals and prompt acceptability of the said services by the local populace are not addressed squarely and removed. Only then can we join the committee of nations with the prospects of achieving the United Nation's recommended goal of infant and child mortality by the year 2030.

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