

# The State of Healthcare Sector in Nigeria: Hospital Industry



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## Executive Summary

This report critically evaluates the state of the healthcare sector in Nigeria, specifically the hospital industry. The world is gradually recovering from the unprecedented challenges occasioned by the COVID-19 pandemic, prompting global health crisis and the greatest socio-economic shock in a single generation. This has proven the fact that health and well-being cannot be overemphasized. The healthcare industry is one of the largest and the fastest-growing industries in the world. Nigeria is one of the largest countries in Africa, occupying an area of 923,678 square kilometres, and a population of 200 million people. The demand for healthcare in Nigeria currently outstrips supply, presenting a wide range of opportunities for investment and expertise. The domestic healthcare sector is estimated to be worth US\$5bn per annum. In addition, Nigerians spend more than US\$1bn on about four million medical treatments abroad each year. Efforts to develop the Nigerian health care system have been hindered by several notable challenges, including limited public funding, a high communicable diseases burden, rising incidence of non-communicable diseases, and elevated rates of infant and maternal mortality. There is a huge gap between the rural areas and the urban areas as there are better access to healthcare in the latter than the former.

Nigeria's large, young population, widening deficits in primary and specialty care, and the state's encouragement of investment have created opportunities for growth across all levels of service provision. Among the industries in the healthcare sector, this report considers the Hospital Industry. In Nigeria, hospital and clinical facilities includes Medical Services, Surgical Services, Obstetrics & Gynecology Services, Pediatrics services, Dental Services, and Specific clinical services. Notable among the challenges facing the Nigeria's hospital Industry are: inadequate healthcare facilities, insufficient funding, poor universal health coverage, human capital flight and poorly developed. Health Information System. In the global healthcare space, some of the new trends in global technology include: Telemedicine, The Internet of Medical Things (IoMT), Cloud computing in healthcare, Augmented Reality/Virtual Reality healthcare, Artificial Intelligence (AI) in healthcare, Chatbots, Data Science and predictive analytics, Blockchain, Personalized mobile apps, and Advanced Social Media. Thus this report identifies key areas of investment opportunities in the hospital industry, laying more emphases on technology.

### 1.0 Background of the Health Sector in Nigeria

The world is gradually recovering from the unprecedented challenges occasioned by the COVID-19 pandemic, prompting global health crisis and the greatest socio-economic shock in a single generation. This has proven the fact that health and well-being cannot be overemphasised. The healthcare industry is one of the largest and the fastest-growing industries in the world. The sector consists of businesses that provide medical services, manufacture medical equipment or drugs, provide medical insurance, or otherwise facilitate the provision of healthcare to patients. The healthcare sector portrays a highly price inelasticity in terms of its demand. This is because changes in the price of healthcare has little or no impact on its demand. Consumers and producers face inherent uncertainties regarding needs, outcomes, and the costs of services.

Whereas developing countries are plagued with lack of adequate access to quality essential medicines at affordable prices, many developed countries across the world have equal access to medicines as there is adequate provision and accessibility through subsidy and free medical services. The rise of the Coronavirus (Covid-19, an illness caused by a novel coronavirus) pandemic in the year 2019 has proven the importance of the healthcare sector to the health and economy of the world as several measures were taken to stay healthy as well as shutting borders.

Nigeria is one of the largest countries in Africa, occupying an area of 923,678 square kilometres, and a population of 200 million people. The national healthcare system in the country is based on the three-tier system of primary, secondary, and tertiary care. The Local Government Councils are responsible for primary healthcare services while the State Government provides secondary levels of care. The Federal Government is responsible for tertiary healthcare services. The demand for healthcare in Nigeria currently outstrips supply, presenting a wide range of opportunities for investment and expertise. The domestic healthcare sector is estimated to be worth US\$5bn per annum. In addition, Nigerians spend more than US\$1bn on about four million medical treatments abroad each year (Fig 1).

Efforts to develop the Nigerian health care system have been hindered by several notable challenges, including limited public funding, a high communicable diseases burden, rising incidence of non-communicable diseases, and elevated rates of infant and maternal mortality. There is a huge gap between the rural areas and the urban areas as there are better access to healthcare in the latter than the former

*The healthcare industry is one of the largest and the fastest-growing industries in the world.*

**Table 1: Healthcare Statistics Nigeria**

	Statistics
Population (2019)	200 Million
Average Life Expectancy	52 Years
Non-Communicable Diseases	29% of all deaths
Spending on Healthcare by 2021	₦5.76 trillion
Outbound Medical Tourism	US\$ 1 Billion annually

Source: Medic West Africa, PAC Research

Nigeria's large, young population, widening deficits in primary and specialty care, and the state's encouragement of investment have created opportunities for growth across all levels of service provision. In Nigeria, the sector, over the last few years has consistently lagged behind with the minimum requirement of allocating 15 percent of the total annual budget to improve the health sector, despite being a signatory to the 2001 African Union Abuja Declaration. When compared to other West African countries, Nigeria has the second highest density of medical doctors, which is, however, still very low compared to the actual need for such a populous nation.

## 2.0 Industries in the Healthcare Sector

This sector includes industries and companies involved in products and services related to health and medical care. The industries include

- Pharmaceuticals
- Biotechnology
- Equipment
- Distribution
- Facilities
- Managed health care.

### Pharmaceutical

The pharmaceutical industry is involved in research, development, production and marketing of drugs for use as medications. The levels of production in this industry includes Primary, Secondary and Tertiary. Primary production is the processing of raw materials to create Active Ingredients (AIs) and additives/excipients or ancillary substances used in pharmaceutical formulation. Secondary production is the large-scale processing of finished dosage form such as tablets, capsules and injections, from raw materials or intermediate products, often from both local and imported sources; while tertiary production involves packaging and labelling finished products from primary and secondary sources into bulk packs, smaller dispensing packets, bottles, or course of therapy units for individual use. Pharmaceutical Industry further consists of many players including Over-the-counter (OTC) drugs & Drug Stores, Prescription drugs,

*When compared to other West African countries, Nigeria has the second highest density of medical doctors...*

Biopharmaceutical drugs, Generic drugs, Pharmaceuticals Packing & Labeling Services, Dietary Fiber Supplement Manufacturing, Vitamin & Supplement Manufacturing, Cough & Cold Medicine Manufacturing, Health Stores and Eye Glasses & Contact Lens Stores etc. Nigeria provides 60% of the health products consumed in West Africa (as reported by PMGMAN). The leading producers of medicines in the pharmaceutical industry in Nigeria include Swiss Pharma Nigeria Limited, Fidson Healthcare, Emzor Pharmaceutical, GlaxoSmithKline Nigeria, May & Baker Nigeria Plc and Chemiron International Limited. Nigeria's pharmaceutical market is worth US\$2bn (Deloitte, 2018).

### **Biotechnology**

Biotechnology differs from pharmaceutical companies because they seek to develop new drug therapies strictly using biological processes rather than the chemical processes. Biotechnology has rapidly emerged as an area of activities having remarkable impact on all aspects of human life ranging from food processing, protecting the environment, human health to quality of human life all over the world.

### **Distribution**

Distribution in the healthcare sector represents the vital link between pharmaceutical manufacturers and pharmacies, hospitals, long-term healthcare facilities, clinics, and others nationwide. It involves delivering medicines and equipment's safely, securely, efficiently and on time. The fast-growing production of drugs and equipment globally gives the distribution industry an opportunity in the sector.

### **Equipment**

The equipment industry includes manufacturers of health care equipment and medical devices, creating products such as medical instruments, drug delivery systems, cardiovascular & orthopaedic devices and diagnostic equipment. A report by Fitch Solutions shows that the Nigerian medical device market will record double-digit growth in local currency and will grow at a 2017-2022 CAGR of 9.0% to reach US\$ 184.4 million by 2022 and predicts healthcare expenditure to reach ₦5, 762.061bn by 2021 at CAGR of 8.35%. Some of the products in this industry includes Orthopaedics & prosthetics, patients aids, Diagnostic Imaging, and Dental products. While the industry is almost entirely reliant on imports, underfunding and the ineffective management of public healthcare services, the large population of the country, as well as its state of highly underdeveloped healthcare sector offers substantial long-term opportunity. Diagnostic services hold massive untapped potential. The diagnostic services industry has seen healthy growth of close to 10% in recent years (Foraminifera Market Research, 2017). Beyond imaging, further diagnostic service opportunities exist in nuclear medicine, pathology and paternity testing.

*...Nigerian medical device market will record double-digit growth in local currency and will grow at a 2017-2022 CAGR of 9.0% to reach US\$ 184.4 million by 2022...*

### Managed Health Care

The managed health care describes a variety of techniques intended to reduce the cost of providing health benefits and improve the quality of care. This implies the Health Insurance Industry. This deals with the players that provide medical insurance or different types of services to either patients or other medical sector players, intended to reduce the cost of providing health benefits and improve the quality of care for organizations that use those techniques or provide them as services to other organizations.

This sector further consists of many players including Health maintenance organizations (HMOs), Healthcare Consultants, among others. Low levels of health insurance penetration coupled with large population growth present opportunity in the health insurance sector. However, due to relatively low-income levels, innovative insurance models are key to success in the insurance space.

### Facilities

Healthcare facilities are the health care providers in the healthcare sector, providing and delivering medicines to needing patients and where doctors practice medicine. Companies provide a wide range of health care and social services through hospitals, doctors' offices, nursing homes, outpatient surgery centres, and other facilities. Cost is relatively high in this industry because hospitals need to operate.

Health care services and facilities subsector is comprised of many segments. The broad classification includes: Hospitals, Nursing and residential care facilities, Ambulatory health care services, Medical Practitioners & Healthcare Professionals.

### 3.0 Stakeholders in the Health Sector

The stakeholders in the Nigerian health sector includes the Federal Government, the State Governments, the Local Governments, State Ministries of Health, National Primary Health Care Development Agency, Health Maintenance Organizations, World Health Authorities. These stakeholders are responsible for the smooth operations of the health sector.

*Low levels of health insurance penetration coupled with large population growth present opportunity in the health insurance sector.*

Fig. 1: Stakeholders in the Health Sector



Source: PAC Research

#### 4.0 Health Care Financing in Nigeria

In Nigeria, the sector, over the last five years has consistently lagged behind with the minimum requirement of allocating 15 percent of the total annual budget to improve the health sector, despite being a signatory to the 2001 African Union Abuja Declaration. When compared to other West African countries, it has the second highest density of medical doctors, which is, however, still very low compared to the actual need for such a populous nation. According to Statista, Government expenditure on the health sector is considerably lower than what comes from private contributions, differing by over ₦2 trillion. About 3.8 percent of Nigeria's GDP is invested in the health sector, which is far less than the average percentage of GDP spent on healthcare in OECD countries (which stood at 8.8 percent). In 2019, on average, health care made up six percent of Nigerian household spending, with higher figures in rural areas than in urban zones (Statista).

Fitch Solutions reported that healthcare expenditure in Nigeria is predicted to reach ₦5.76 trillion by 2021 growing at a CAGR of 8.35% Y.O.Y. This is up from an estimated ₦5.31 trillion in 2020. By 2021, healthcare spending is estimated to make up 2.94% of the country's GDP. While the government is expected to spend ₦1.47 trillion by 2021, the private sector will spend ₦4.28 trillion the same period. This is up from ₦1.19 trillion and ₦3.71 trillion respectively in 2019.

*Fitch Solutions reported that healthcare expenditure in Nigeria is predicted to reach NGN5,762.061 billion by 2021.*

Fig. 2: Health Expenditure as a Percentage of GDP



Source: Statista, PAC Research

More than half of Nigerians population live on less than \$1.90 a day ('Poverty Head-count'), making the country one of the poorest in the world. The country was ranked 187 out of 191 countries in the world (as at 2018) in assessing the level of compliance with the Universal Health Coverage (UHC), as very few of the populace are health insured, whereas even government provision for health is almost insignificant. Nigeria has a predominantly out-of-pocket (OOP) health financing mechanism, thus making attainment of Universal Health Coverage a challenge, as well as causing households to incur catastrophic expenditure. OOP payments dominate in Nigeria, accounting for almost 71.7% of total health spending in 2014. This implies that for the same year, the government expenditure for health is less than 30% of all the money spent on health across the whole nation.

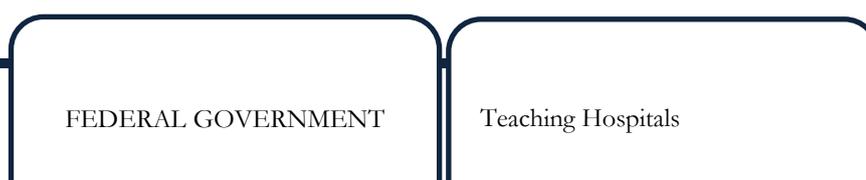
In 2017, the total expenditure as a percentage of GDP is 3.76% (Fig. 2) which is far below the world average of 6.56 percent in the same year (Global Economy).

## 5.0 The Hospital Industry in Nigeria

The hospital is a specialized body where the patient care is the focal point and about which all activities of the hospital revolve. The national healthcare system in Nigeria is based on the three-tier system of primary, secondary, and tertiary care. The Federal Ministry of Health (FMH) has the responsibility to develop policies, strategies, guidelines, plans and programmes that provide the overall direction for the National Health Care Delivery System. Local Government Councils are responsible for primary care services while the State Ministries of Health provide secondary levels of care. The Federal Government is responsible for tertiary care services.

*...the government expenditure for health is less than 30% of all the money spent on health across the whole nation.*

Fig. 3: Levels of Healthcare and Responsibilities

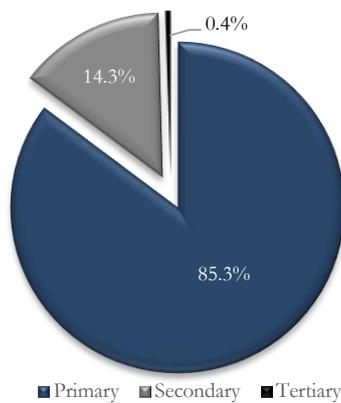




Source: PAC Research

In Nigeria, hospital and clinical facilities includes Medical Services, Surgical Services, Obstetrics & Gynecology Services, Pediatrics services, Dental Services, and Specific clinical services. Healthcare services are delivered at 40,533 health centres, 85.3% (34,577) are primary facilities, 14.3% (5,793) offer secondary services and 0.4% engaged in tertiary care (163).

Fig. 4: Levels of Healthcare Facilities



Source: Federal ministry of Health PAC Research

Of the total number of healthcare services provided within the country, 73.3% are provided by the public sector, while the private sector provides 26.7% (Fig. 5)

Fig. 5: Healthcare Facilities provided by Public and Private Sector

*Source: Federal ministry of Health PAC Research*

## 6.0 Major Components of the Hospital Value Chain

### *Primary Activities*

In the Nigerian Hospital Industry, there are basically two components of the Hospital Value chain, which represents the activities in the industry.

- i. The primary activities: These represents the core of the hospital industry such as
  - Admission: Where patients are admitted into the hospital such as Pay-Treatment, Out-patient department, as well as the Emergency rooms.
  - Care: Here, patients are catered for in evaluating their cases, running diagnostic tests, giving treatments, as well as making referrals.
  - Discharge: Patients are sent back home after they are treated, or otherwise referred to other centers for further treatments.
  - Marketing and Sales:
  - Services: Ambulatory services

### **Support Activities:**

These are services that support the primary activities in the hospital such as Hospital administration, diagnostic and therapeutic services, as well as services such as Maintenance and Security.

**Fig. 6: Hospital Value Chain**



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*Source: PAC Research*

## **7.0 Challenges of the Hospital Industry in Nigeria**

As analyzed by the Oxford Business Group (OBG), the development of the Nigerian healthcare system generally has been hindered by several notable challenges, including limited public funding, a high communicable diseases burden, rising incidence of non-communicable diseases, elevated rates of infant and maternal mortality. The following are challenges that have plagued the hospital industry in Nigeria:

1. **Inadequate healthcare facilities:** Many of the hospitals in Nigeria have inadequate facilities such as hospital beds, equipment, machines, among others. While some are available and adequate, others are obsolete and dilapidated, putting the lives of the people in jeopardy.
2. **Insufficient Funding:** Nigeria's health budget for 2018 stood at N340.46bn, which was 3.96 per cent of its N8.6tn proposed national spending. A breakdown of the health budget showed Nigeria, then estimated to have a population of 186 million, allocated approximately N1, 832.62 for each citizen. Of the total N9.45tn budgeted for 2020 by the Federal Government, N427.3bn (4.5 per cent) was allocated to health.
3. **Poor universal health coverage:** The problem of skewed distribution of health services persists within the country over the years, with the few available personnel and facilities mostly concentrated in the urban

areas, where most of the large facilities such as General Hospitals and Teaching Hospitals tend to be located.

4. Human Capital Flight: There has been an upsurge of medical professionals emigrating to other countries, especially in Europe and America. healthcare practitioners – physicians, nurses, pharmacists, and laboratory scientists, physiotherapists amongst others are migrating. The high rates of healthcare tourism in Nigeria are not for lack of local physicians, as close to 3 000 doctors are trained in Nigeria every year. However, over 63% of trained doctors end up practicing medicine abroad. The exodus of doctors is due to a range of reasons such as unattractive remuneration, poor working conditions, and lucrative opportunities abroad.

5. Poorly developed Health Information System (HIS): The HIS comprises The country's HIS is made up of six components namely: HIS resources, indicators, data sources, data management, information products and information use. While these components are poorly managed, the health statistics are generally uncoordinated, incomplete, unreliable and untimely.

## 8.0 Global Digital Health

According to Statista, in 2016 the mobile health market was estimated at some 23 billion U.S. dollars worldwide. It is expected that it will reach nearly 190 billion U.S. dollars by 2025, driven by one of the most significant growth levels within the digital health market.

The global digital health market is expected to reach \$206 billion in 2020, and increase to over 500 billion U.S. dollars by 2025 (Statista). During this time, the health information technology segment of the industry is expected to generate the largest revenue share, reaching some 280 billion U.S. dollars already by 2021. The mobile health especially, is experiencing a growth trend as consumers demand more accessibility to their medical health professionals and transparency in health care becomes more important. However, some hesitation still exists among consumers in regards to the privacy of personal information and the security of data systems. Approximately 33 percent of females reported that they were not at all comfortable sharing self-collected digital information, while about 12 percent of male consumers claimed to be very comfortable. More efficient healthcare expenditures are also important to many consumers, where 43 percent of consumers state that the ability to reduce one's own health care costs is driving their adoption of mHealth applications and services. China's market is expected to generate large growths in the overall global market, reaching 125.3 million RMB in 2017. The emergence of the digital health market is expected to increase the potential of big data and analytics and transform the consumer healthcare market.

*The global digital health market is expected to reach \$206 billion in 2020, and increase to over 500 billion U.S. dollars by 2025...*

New trends in the global technology for the healthcare sector include:

- Telemedicine
- The Internet of Medical Things (IoMT)
- Cloud computing in healthcare
- Augmented Reality/Virtual Reality healthcare
- Artificial Intelligence (AI) in healthcare
- Chatbots
- Data Science and predictive analytics
- Blockchain
- Personalized mobile apps
- Advanced Social Media

## 9.0 Technology in the Hospital Industry

Technology has a lot of important roles to play in the smooth operation of the modern hospital turning manual processes to automated processes, as well as improving the efficiency of hospitals and improve the quality of care delivered to patients. Development of medical devices and equipment, artificial organs, robotics with the use of technology has made significant contributions to improving health all over the world. Furthermore, developments such as Electronic Medical Records (EMR), telehealth services, mobile technologies has aided improvements in delivery of medical services.

In 2012, a non-profit organization ECRI Institute, based in Plymouth identified ten of the top technology issues for hospitals (Fig 7)

*Development of medical devices and equipment, artificial organs, robotics with the use of technology has made significant contributions to improving health all over the world.*

Fig. 7: Stakeholders in the Health Sector



Source: PAC Research

The increase in the number of cases with cancers, heart disease, diabetes complications and kidney failure, as well as the novel Covid19 disease has

raised concerns for the need for technology within the health care sector as a whole in Nigeria. Technology is important in the hospital industry for the following reasons:

- **Telemedicine:** Leveraging technology through telemedicine is vital to the delivery of quality and accessible healthcare. Wherever the patients are located, they can have access to good quality healthcare services, reducing the influx of patients into the hospital, as well as reducing the pressure of health facilities such as bed spaces. Telemedicine also enhances the use of home monitoring devices that can be used remotely to help doctors predict conditions that are critical by monitoring identified high risk patients remotely, helping to reduce fatalities in patients through warning signals. Telemedicine is also financially favorable to patients as costs typically associated with in-person appointments are greatly reduced. It provides patients with the confidence of being able to access their clinician in their time of need and aids patient engagement which allows continuity of care. More importantly in Nigeria, telemedicine has the potential to boost access to quality healthcare delivery across each region so that everyone, regardless of their location, can be provided parallel quality healthcare services. (ThisDay). Prominent Telemedicine platforms in Nigeria include: ClinicalHub Telemedicine, Health Connect 24x7, Tremendoc, Ecare Telemedicine and Doctorcare247 Limited.
- **Digitize records and automate restocking for drugs:** Technological mobile devices are capable of giving physicians access to information such as drug information, research and studies. Over the past years, Electronic health records in advanced countries of the world have proven to improve centralization and efficiency of patient information, as well as used as data and population health tool.
- **Greatly Improved Diagnosis and Prompt Discovery of Diseases:** Advancements in the use of technology is capable of allowing physicians to better diagnose and treat patients, save lives and improve the overall quality of human life.

*Leveraging technology through telemedicine is vital to the delivery of quality and accessible healthcare.*

### 10.0 SWOT Analysis of the Hospital Industry in Nigeria

Fig. 8: SWOT Analysis

Strength	Weaknesses
<ul style="list-style-type: none"> <li>• Health Insurance Policies NHIS</li> <li>• Gradual Advancement of</li> </ul>	<ul style="list-style-type: none"> <li>• Unequipped Laboratories</li> <li>• Poor Infrastructure</li> <li>• Inadequate service delivery in</li> </ul>

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>• Collaboration with NGOs</li><li>• Public Private Partnership</li><li>• Information Communication Technology</li><li>• Telemedicine</li></ul> | <ul style="list-style-type: none"><li>• Strike actions</li><li>• Insufficient Budget allocation to the industry</li><li>• Exodus of doctors</li><li>• Medical Tourism</li></ul> |
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Source: PAC Research

## IMPORTANT DISCLOSURES

This research report has been prepared by the analyst(s), whose name(s) appear on the front page of this document, to provide background information about the issues which are the subject matter of this report. It is given for information purposes only.

Each analyst hereby certifies that with respect to the issues discussed herein, all the views expressed in this document are his or her own

