Introduction

Health is a critical part of life, and the proper provision of health services is no less important. The health industry is a multi-billion-dollar industry globally, cutting across racial, political, cultural and other divides to reach all corners of the world. The industry consists of several sectors and allows for specialization in a host of fields. This report will deal in detail with the health industry on an international and local level. It will contain details of the workings of the industry, the regulatory authorities, the challenges and the opportunities and narrow down on the Kenyan scenario, before providing a conclusion to sum up the key points.

The Health Industry

The health industry is diverse in nature, with several players involved ranging from nurses, physicians and medical equipment firms to suppliers, research firms and manufacturers.

Globally, the United States ranks as the single country with the largest involvement and investment in the healthcare industry followed by Switzerland and Germany respectively.

Government expenditure in health is recurrent and accounts for the main avenues of expenditure worldwide. There is a wide range of industries which are rooted in health care, including the biotechnology industry, dietary supplements, medical clothing and packaging material industries, just to mention a few. Several sectors fall under this broad industry and will be classified as follows:

- Health care services and facilities
- Medical services, equipment and manufacturers
- Medical insurance

• Pharmaceuticals and related

The reach of the global health industry has further been aided and boosted by the need to provide emergency relief to victims of natural disasters and conflict. Medical equipment and actual medication has been called for in instances such as in the Haiti earthquake (2010), the Fukushima Daichii nuclear disaster (2011), numerous hurricane landings in North and Central America, and the refugee crisis in Europe which began in 2014, among others. Thus, the impact of the industry stretches far beyond any one country's domestic needs. The industry is among the most stable and globally recognized and respected.

In 2006, the global drug market was worth \$550 billion, with an estimated overall expenditure of about \$4.5 trillion. This was driven not only by wages but also the increased prevalence of lifestyle diseases such as cancer and heart disease. The need for greater nursing healthcare as well as the prominence of such services as long-term care also fueled demand for the industry's output.

Kenyan Health Care

The state of health in Nairobi is stable, but it is worth noting that it is still wanting. This is alarming, considering that Nairobi is Kenya's capital city. A 2007 government survey by the Ministry of Health revealed that Nairobi was more likely to have a population falling ill than any other region in the country at 18% likelihood, with North Eastern Kenya reporting the lowest likelihood. This is perhaps owing to the large population and exposure to disease-causing elements such as environmental pollution and risky sexual behavior in the case of venereal diseases. The annual per capita out of pocket expenditure in urban areas in 2007 was KES674,

roughly amounting to \$6.62 using the February 2016 exchange rate. In rural areas the figure was much lower, standing at \$1.37.

In 2009, the World Health Organization ranked countries by health expenditure, with Equatorial Guinea coming first in Africa, spending \$804 per capita. Kenya came 28th, with a per capita expenditure of \$36. Maternal and infant mortality along with malaria and the HIV/AIDS scourge have been at the top of the Kenyan agenda perhaps more than anything else. In 2013, the World Bank estimated Kenya's public health expenditure at 41.74%, consisting of recurrent and capital expenditure, foreign borrowing and grants. However, by 2015, private healthcare supported the lion's share of health care in the country, catering for 40% of the national health expenditure. HIV/AIDS was the largest sole avenue for health expenditure in the country at 20%. This was followed by reproductive health at 12.9% and malaria at 9.8% respectively. Between 2010 and 2014 however, malaria had taken over as the leading cause of death in Kenya, with pneumonia and cancer following respectively, determined by the number of registered deaths according to the Civil Registration Department.

The Devolution of Health Care

Under the new constitutional dispensation, Kenyan health care has been devolved to County Governments. This is recognized and embodied in the Health Act of 2015, which further recognizes the division of health care between the public and private sectors. Devolution effectively allows Counties to make their own health care delivery rules which are, however, in line with the national government's overall policy, which is guided and formulated by the Ministry of Health. Listed below are some of the functions devolved to County Governments:

- a. County health facilities
- b. Ambulance services
- c. Drug abuse control
- d. Veterinary services
- e. Cemeteries, crematoria and waste disposal

The national government still retains certain functions, some of which include:

- a. Referrals to national hospitals
- b. Financing of health care
- c. Major disease control
- d. Services by institutions such as the National Hospital Insurance Fund (NHIF), Kenya Medical Supplies Agency (KEMSA) and the Kenya Medical Training College (KMTC), among others.

Strategic Plans and Supporting Efforts

The Kenyan Government has laid down a strategic plan for the future of Kenyan health care.

This is contained in the Vision 2030 development blueprint which targets the improvement of 3 pillars; the social, economic and political pillars. Health care delivery falls under the social pillar. The goal is to provide equitable and affordable high quality health care to all citizens by the year 2030. The government plans to achieve this through education of the masses on better health practices and lifestyle adjustments to improve their chances of extending life expectancies.

Additionally, the government hopes that the vision will be achieved through increased attention

to health infrastructure especially in the rural areas of Kenya, increased and improved research and more public-private partnership ventures as far as health care is concerned.

Several health organizations exist the country, each targeting a specific health aspect. Most of these organizations are non-governmental (NGOs), but they work in tandem with government institutions towards a common goal. Family Health Options Kenya is one such organization, dealing with reproductive health services. The Consortium for National Health Research (CNHR) is yet another NGO, involved in health research and training. It brings together Kenyan universities, research institutions, government agencies and other NGOs in a bid to find health solutions that are tailor made for the local population. Mental and neurological health research is overseen by the Africa Mental Health Foundation, an NGO conceptualized in 2000. These along with other similar organizations serve to bolster the Vision 2030 health-related mission of information sharing so as to make society health-conscious and improve health care provision in the country.

The Central Organization of Trade Unions-Kenya (COTU-K) is an umbrella organization, under which trade unions in Kenya fall. It articulates the grievances of member trade unions in negotiations with government. The trade unions themselves articulate the concerns members and assist in dispute solution and collective bargaining for the well-being of their members. Health trade unions include the National Nurses Association of Kenya, Kenya National Union of Nurses and the Kenya Medical Practitioners, Pharmacists and Dentists' Union, Pharmaceutical Society of Kenya, and the Kenya Medical Association among others.

Competitive Environment

The health industry in Kenya is split into the public and private aspects. Public hospitals are more popular owing to their lower costs, and the country has Kenyatta National Hospital and Moi Teaching and Referral Hospital as the major national referral hospitals. On the private end, the equivalents of these are the Aga Khan University Hospital and the Nairobi Hospital. Other notable names are the Mater Hospital, the Karen Hospital and the Kijabe Mission Hospital.

Pharmaceutical manufacturers in Kenya include Alpha Medical Manufacturers, Dawa Pharmaceuticals Limited, GlaxoSmithKline, Novartis Rhone Poulenic Limited, Bayer East Africa Limited, Beta Healthcare and Pfizer Corp. Other notable names are Pharmaken Limited, Chemolife Limited and Pharmaco Healthcare. Distribution is done by Kenya Medical Suppliers Agency under the Ministry of Health and other private entities.

Medical and health care insurance in Kenya is yet to effectively gain momentum, but some of the main entities include First Assurance Company Limited, Resolution Insurance, Jubilee Insurance, APA Insurance Company, Blue Shield Insurance Company, Heritage Insurance Company and AAR Insurance, among others.

The products available in the industry include medicinal and chemical product manufacture, medical equipment and supplies, medical and health insurance plans, consultancy services and research packages.

Regulation

Health care in Kenya is primarily regulated by the Ministry of Health. Working towards the attainment of the Vision 2030 goal of providing affordable and equitable health care for all, the ministry is tasked with several responsibilities. Key among these includes health regulation, health policy, national health referrals, capacity building and technical assistance provision to counties. Further regulation is done by the Kenya Healthcare Federation. Among its duties is health care professional reforms, consolidation of key health care acts and the licensing of facilities and medical training in the country. Furthermore, health products and technologies are regulated and licensed by the Kenya Health Professionals Oversight Authority, as stipulated in the Health Act, 2014.

There are several recognized regulatory bodies which handle regulatory and oversight matters in specific sectors within the industry. With regard to medicine and dentistry practice in Kenya, the Medical Practitioners and Dentists Board established under the Medical Practitioners and Dentists Act Cap 253 of the Laws of Kenya is in charge of regulation. The regulation of pharmacy and drug manufacture and trade is done by the Pharmacy and Poisons Board, under the Pharmacy and Poisons Act Cap 244 of the Laws of Kenya. Nursing practice, enrolment, training and any standard-checking procedures associated with nursing are regulated by the Nursing Council of Kenya, established under the Nurses Act Cap 257 of the Laws of Kenya.

Challenges

Financial Constraints

One of the main challenges plaguing health care provision in Kenya is the inadequacy of funds. Medication and related equipment often has to be imported from other countries, since the costs of production and necessary technology are in short supply locally. The funding problem has seen numerous trade union-issued worker strikes, which have had paralyzing effects on the economy. With medical practitioners halting service delivery and turning away the sick and injured, numerous lives have been lost. Also falling within this is the inadequate allocation to medical institutions, subjecting them to solely relying on local authority-provided amenities. In the event that the supply of such amenities is disrupted, for instance electricity or water supply, the said facilities place patients' health and wellbeing in jeopardy.

Limited Technology

While Kenya has a pool of intellectual and highly trained personnel continually churned out from higher learning institutions, the country suffers from limited technology. As such, trained personnel are often forced to either share the few available resources or go without them completely. This has hampered research efforts locally, forcing the country to rely on foreign expertise.

Medical Resource Shortages

Due to the need to import some of the necessary medication from such countries as India, there has been a regular shortage of medication experienced, especially in county hospitals. Related to

this is the acute shortage of treatment machines, with specific reference to radiotherapy machines. Cancer is globally recognized as a disease which can be treated if detected early, but can be fatal if allowed to go unattended to. As of 2014, the country had only 2 working cancer machines at the Kenyatta National Hospital, both of which subsequently broke down. Patients had to wait up to 2 years for sessions. Other shortages reported on a national scale include the anti-retroviral drug shortage for HIV and AIDS patients. Such shortages are detrimental to the government's cause, especially when they occur in public hospitals, which are preferred by a majority of Kenyans for their affordability.

Slow Health Insurance Uptake

The concept of health insurance in Kenya has yet to fully penetrate the population. Most of the people with insurance policies are those in formal employment, while the majority in informal employment and the unemployed remain unaware of the importance of health insurance. As such, access to health care remains out of reach for most people, leaving them to opt for cheaper off-the-shelf treatment in neighborhood chemists and pharmacies. Much of this has been fueled by the limited information and insight into the workings of health insurance. Similarly, higher claim ratios than profit-making rates have dissuaded the public, since insurance providers have been forced to raise premiums. The slow uptake of the products has also adversely affected efforts to spread the information on the workings of health insurance.

Low Staffing

While some medical facilities may have a sufficient allocation of medicine and equipment, staff inadequacy presents a challenge. In 2003, the number of doctors and nurses per 100,000 people

stood at 15 and 133 respectively. In 2007 this had changed to 18 and 128 respectively. There is therefore a strain on the available medical practitioners, which leads to substandard service provision. Such low staffing has led to outcry from trade unions, demanding that the government employs additional personnel, with such strikes and demonstrations crippling services.

Opportunities

There exist opportunities for equipment and medicine suppliers to venture into the Kenyan health industry. The aforementioned drug and machine shortages or lack thereof allows local and international firms with proper and consistent supply chains to assist the government in its cause. Private hospitals also stand to benefit from improved supply chains, since their comparatively higher quality services would be rendered slightly more affordable with local equipment and drug sourcing.

Technology improvement is also key in improving the state of the Kenyan health industry. It would allow researchers access to much-needed equipment and technical knowhow, thus enabling them be more efficient in their contribution to the industry. The Kenya Medical Research Institute, one of the most renowned local research institutes, has reported technical challenges, especially in their efforts to shit to automated operation. Equipment is expensive, and with a lack of government subsidies, research institutes are faced with restrictions in operations. Therefore, equipment suppliers and trained research professionals as well as technology firms have an opportunity to venture into the local health industry.

Brain drain has led to an outflow of trained medical professional to countries with better remuneration. The country has a large number of students who graduate from higher learning

institutions, but due to wages being below standard in most cases, they opt to seek employment elsewhere. With government adjusting remuneration to allow keeping up with the cost of living which is a major concern, the staffing problem can be mitigated. Such adjustments can also provide incentives for expatriates with international experience to inject their expertise into the Kenyan scene, making it more internationally competitive and boosting the Vision 2030 health agenda.

Conclusion

The Kenyan health industry, although more developed than its immediate East African neighbors', still lags behind as far as international standards are concerned. The identified challenges present opportunities for improvement which if taken, would place Kenya at the fore, beginning with the African setting and gradually, globally. Shortages plague the industry and limited technology limits the country's competitive appeal. Vision 2030 creates a plan for making improvements and taking advantage of the illustrated opportunities and its implementation is set to avail affordable and equitable health care to all.