

NATIONAL DRUG POLICY IN NIGERIA, 1985-2015**Ogbonna BO^{*1}, Ilika AL² and Nwabueze SA²**

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INTRODUCTION

The maiden edition of National Drug Policy (NDP) in Nigeria was launched in 1990 against the background of inadequacies in drug availability, supply and distribution resulting from various factors, such as: ineffective system of drug administration and control, inadequate funding of drug supply and drug control activities, high dependence on foreign sources for finished drug products, pharmaceutical raw materials, reagents, equipment and inadequate facilities for storage, transportation and distribution of drugs. Others limitations include: poor performance of drug suppliers to public health care institutions, poor selection and procurement practices, involvement of unqualified persons in procurement, distribution and sale of drugs and lack of political will to attend to numerous drug related matters such as provision of safe, efficacious and good quality

drugs to meet the health needs of Nigerians. The policy was formulated with laudable goals and objectives intended to address the unsatisfactory situation at that time. Its adoption was seen as a positive development while some modest progress were recorded with the publication of an Essential Drugs List (EDL), the National Drug Formulary (NDF), and establishment of a statutory agency saddled with the responsibility of drug administration and control, in addition to the introduction of drug registration procedures. Access to essential drugs remains a key indicator in the assessment of the viability of primary health care system in line with the Bamako Initiative. In 1975 International Labor Organization (ILO) introduced and defined the concept of essential drug while the World Health Organisation (WHO) prepared the first list of essential drugs in 1976. The WHO recommended the list for

nations in 1979. In 1984/85 funds were made available by donors to support drug utilization in many developing nations. This led to the birth of Drug Policies in many countries to manage essential drugs and improve access to them. Nigeria launched her maiden National Drug Policy (NDP) in 1990.^[1,2]

The lapses observed with the 1990 edition include among others: non-realization of self-sufficiency in local production of essential drugs, absence of established and effective drug procurement system, entrenchment of well-ordered drug distribution system, harmonization and update of drug legislation, entrenchment and enforcement of rational use of drugs at all the levels of health care. The 2005 revised policy was expected to serve as an opportunity for formulating new strategies, for consolidating on the achievements in areas where progress have been recorded, and addressing those areas that call for more positive actions. Thus, when the framework is completely laid out and fully implemented, the Nigerian people will have sustainable access to safe, efficacious and good quality drugs.^[3,4] This paper reviewed the current state of drug manufacturing, supply and use in Nigeria to assess the extent of actualization of the NDP in the target areas within the period under review.

Goals and objectives of the National Drug Policy in Nigeria

The goals of the drug policy in Nigeria is to make available at all times to the Nigerian populace, adequate supplies of drugs that are effective, affordable, safe and of good quality; to ensure the rational use of such drugs: and to stimulate increased local production of essential drugs. The objective of the NDP include among others: to ensure an efficient and effective drug management in the public and private sectors, ensure access to safe, effective, affordable and good quality drugs at all levels of health care system on the basis of health needs, promote the rational use of drugs by prescribers, dispensers and consumers, increase local drug manufacture/production, promote export and ensure that all drugs in the national drug distribution system are safe, efficacious, effective and of good quality. Others include strengthening administrative, legislative, and regulatory controls of the importation, manufacture, procurement, storage, distribution, supply, sale and use of drugs while promoting research on herbal remedies. It seeks to integrate herbal remedies found to be safe and efficacious into the health care systems, promote pharmaceutical research and development of raw materials for the production, compounding and formulation of pharmaceutical products, as well as operational research for the effective implementation of the National Drug Policy; and enlist government commitment at all levels for the

achievement of the goals and objectives of the NDP. The target is to ensure that 60% -80% of these objectives were actualized before the end of 2008.^[5,6]

Strategies for implementing the National Drug Policy in Nigeria

The strategies for implementing the national drug policy are purely technical and will require concerted efforts from pharmacists and other relevant personnel to ensure satisfactory implementation. The strategies emphasized proper accountability and rational use of drugs by health workers and consumers. These strategies include: selection of drugs: publication of revised essential drugs list for use by the federal, state and local governments at all levels of health institutions in the country. Drug listing based on generics or International Non-Proprietary Names which should be based on health need of the majority of the Population, update of EDL every four years, use of standard treatment guidelines, national formulary and reimbursement of National Health Insurance Scheme (NHIS). The policy introduced procurement of drugs based on EDL and generics, open competitive tender bidding which shall be conducted in a transparent manner with the advice of the Pharmacy Departments of the hospitals involved. Drug Revolving Fund (DRF) scheme through the establishment of DRF committee for effective and transparent fund management, empowering the Head of Departments (HOD's) of pharmacies as signatories to the DRF account, separation of DRF accounts from other hospital accounts and training of DRF personnel in pricing policies by putting in place mechanisms to ensure that the cost of drugs in public institutions are minimal. Effective drug storage was captured to ensure stock security and maintenance of drug quality throughout their shelf life and ensuring efficient and successful operation of drug storage and distribution systems across the country.

Drug distribution, supply, sale and dispensing shall be under the control and supervision of pharmacists at all levels as stated in the policy. Rational drug use, control of donated drugs, control of local drug production, legislation, inspection and control of import and export of drugs should be properly manned. The policy covers registration of drugs to ensure that the government has control over drugs that are offered for sale and use within the country. This underscores the need to strengthen the National Agency for Food and Drug Administration and Control (NAFDAC). Regulations for prescribing and dispensing of drugs, pharmacovigilance, drug information, promotion, financing and affordability were other key area where the NDP is primarily responsible to the government at all levels in addition to research and development. The policy also covers herbal and other traditional remedies

standardization and development of compendium of herbal medicines. Human Resources Development through well trained and experienced professionals, managers, and other personnel's for planning, organization and implementation of the NDP should be encouraged. Government should, therefore: ensure constant curriculum review, expand facilities in the universities and research institutes, strengthen the capacity of trainers and develop a comprehensive and robust in-service training programmes to address on-the-job requirements towards the implementation of the policy. They should encourage continuing education programmes; control of veterinary drugs and encourage international cooperation between countries to help in combating the influx of sub-standard and counterfeit drugs. Cooperation through the establishment of appropriate channels of communication, using WHO Certification Scheme, use of diplomatic means for the exchange of information and liaising with appropriate international control boards were all captured by the policy in addition to Monitoring and Evaluation.^[7,8,9]

In 1990, about 4000 varieties of drugs were in circulation in Nigeria whereas all that was needed were approximately 200 while 50% - 60% of the drugs in circulation were either fake or substandard. Gross deficiencies in quality control for both local and imported drug preparations have improved markedly due to surveillance operations. Only 10% - 15% of the local drug need were manufactured locally within the first 5 years.^[5] Fake, sub-standard, adulterated and unregistered drugs were prevalent. Erratic supplies and availability of different categories of ethical and over-the-counter preparations and other medicinal products abound. Consumer rights and consumers' health knowledge and level of awareness of their rights to quality and rational use of drugs were below 10%.^[10]

Drug Faking and Counterfeiting in Nigeria

Faking and counterfeiting of pharmaceutical products and raw materials have become a major problem facing the international community, and Nigeria is not an exception. Recent trends suggest an increase in counterfeit drug sales amounting to over \$70 billion in 2010 and an increase of over 90% from 2005. There has been a growing trend of all manner of counterfeiting in Nigeria, ranging from raw materials to finished pharmaceutical products. Studies show that drug faking and counterfeiting took alarming dimension from 1995 to 2000. This period also marked the proliferation of illegal drugs and medicine marketers and vendors, as recorded by Erhun et al.^[10] Osibo et al, suggested that there were more counterfeit drugs than genuine ones in circulation in Nigeria and this was further compounded by weak

regulations.^[11] For more than two decades, Nigeria battled counterfeiting without adequate political will and functional framework to no avail. However, positive results were recorded from 1993 when the government rose up to the challenge by promulgating and enacting the counterfeit and fake drug (miscellaneous provisions) decree No. 21 of 1998 which prohibited the sale and distribution of counterfeit, adulterated, banned, and fake drugs or poisons in open markets and without a license of registration. As a follow up, the National Agency for Food Drug and Administration and Control (NAFDAC) was established in 1993 to clear the nation of fake and adulterated drugs through strict regulation and control. Positive feats were achieved from 2001 through strict enforcement and regulations which led to marked improvement in the fight against fake and substandard drugs and reduction of drug failure rates by 16% between 2002 and 2006. Further reduction in circulation of counterfeit drugs by over 80% was noted by NAFDAC in 2006. In 2002, WHO reported that 70% of drugs in Nigeria were either fake or substandard. The NAFDAC estimate of counterfeit drugs in Nigeria same period was put at 41%.^[12,13] Other scholars, who reviewed the situation in the 1990s and early 2000s, estimated the level of counterfeiting in Nigeria to have fallen to between 36% and 48%.^[14] This was largely due to corruption, weak government policies and weak monitoring and evaluation practices.

Drug Service Administration

The majority of people in developing countries suffer from disease conditions common to under- developed economies. People rely greatly on drug products due to prevailing environmental and harsh economic climate for their daily living. This underscores the dire need for availability and affordability of safe and effective drugs for proper health maintenance. The Nigerian government introduced the National Drug Formulary and Essential Drugs List in 1986 and a National Drug Policy in 1990.^[15,16,17] These, coupled with more than five decades of military rule left the nation impoverished with very poor health indices such as poor life expectancy of 48.8 years compared to 76 years obtainable in most developed countries. Poor drug service administration has hindered the smooth implementation of the essential drug list system meant to boost the National Drug Policy.

Pharmaceutical Drug Manufacturing in Nigeria

The pharmaceutical manufacturing industry in Nigeria has passed through a tortuous path, from the rudimentary era of pre-1957 to the foundation-laying era of the 1960s, through the oil boom era of the 1970s, to the harrowing experience of the 1980s and 1990s. This has

given way to the potentially bright era of the 2000s. This path traversed by the industry is not peculiar to Nigeria alone but relatively the same in other developing countries. The development of the Nigerian pharmaceutical industry has evolved over time in five phases. Each phase depicts the stages of growth that took place in the industry.

The first phase called the Pre 1957 Era started with the establishment of the first community pharmacy in Nigeria by Dr. Zacheus Bailey in Lagos. During this time, the pharmaceutical business involved the distribution of imported drugs by representatives of different multinationals in the country. Some of the multinationals were Glaxo, Beecham, May and Baker, Pfizer and J. L. Morrison. This meant that there was no local manufacturing of modern pharmaceutical products in Nigeria before 1957. The second phase covered the era when the multinational companies started establishing production plants in Nigeria from 1957-1980. These companies include Glaxo (1958), Pfizer (1962), Sterling (1963), Wellcome (1967), PZ (1968), and Pharchem (1968), SmithKline Beecham (1973), May & Baker (1977), and Hoechst (1982). This phase was seen as the golden era as many companies expanded their capacities and some of them built modern factories and manufacturing plants. With the end of the Nigeria-Biafra Civil War in 1970 and the emergence of the oil boom, this era could not have been better for the companies and the economy as profits, employment and foreign exchange multiplied. However, these companies were solely owned and operated by foreigners with no Nigerian indigenous participation or local content. The third phase was the enactment of the Indigenization Policy in 1978 which brought about the evolution of drug production in Nigeria and spanned from 1980-1982. The policy forced most of the multinational companies to sell 60% of their shares to Nigerian investors. This phase saw the emergence of indigenous companies such as: Biode, Rajrab and Leadly Pharma (1980), Biomedical Services (1981) and many more. The Federal and the then Bendel State Governments also set up manufacturing facilities in the country. Indigenous companies began to combine the formulation of simple dosage forms with the manufacture of more sophisticated ones. By 1980, the local production of drugs had increased from less than 5% to 20%.³ This stage of the evolution was a very positive stage for the country's pharmaceutical industry. It engendered prospects for many Nigerian investors and improved the chances of expansion with consequent positive growth impact on the Nigerian economy.

The fourth phase spanned from 1983 to 1986 and was characterized by excessive and unmanaged dependence on imported finished products. The oil boom era had a severely

damaging effect on the economy. With the dwindling economy and severe shortages of foreign exchange, goods became scarce and the scarcity of pharmaceutical products became a new phenomenon. In the public hospitals, it was popularly called the “Out of Stock Syndrome”. The government introduced the infamous import license for all imported goods, including drugs, and with it, the course of the history and development of the pharmaceutical industry was altered. The introduction of the structural adjustment programme as recommended by the International Monetary Fund (IMF) further exacerbated the fragile economy. The Nigerian government’s implementation of the import license regime was done mainly on the basis of political patronage. Many people who had no business with drugs and pharmaceuticals got the licenses and became importers, while pharmacists, genuine manufacturers and importers were either denied the privilege or forced to repurchase the import licenses from the unethical operators. With the introduction of this regime, the drug importation and distribution system in Nigeria became chaotic. The country’s markets were flooded with all sorts of fake, counterfeit and substandard products. However, two positive results were recorded during this period. More indigenous pharmaceutical manufacturers, such as Emzor, Mopson, Barewa, Geonnasons, Continental, Ashmina, and Afrik came into the scene while the proportion of local manufacture grew to 40%.

The fifth stage which started from 1987 till date is the era with six main ownership structures. The indigenous manufacturers control 58% of manufacturing, Asian owned companies control 18%; Anglo American owned companies have 14%, the government companies control 5% while others control 5%. From the above structure, it has become obvious that the indigenous ownership in the industry is on the increase. This is a welcome development for the industry and indeed the nation because the presence of indigenous companies in the industry creates more jobs and encourages the development of products that are relevant to, and meet the healthcare needs of the nation. It also encourages and supports full implementation of the Essential Drug List because it ensures availability, accessibility, affordability, and rational use of drugs which are very crucial to the success of the nation’s health policy.^[16] Despite the apparent growth in the number of indigenous players in the industry, there still remains the fact that no company has set up a basic active raw material manufacturing plant in Nigeria. The pharmaceutical industry is greatly challenged in this regard. The amendment of the Essential Drug List (EDL) decree restricting the application only to public health institutions was the first support to the industry. With the amendment to

this decree, companies were able to expand their product base, revived abandoned product lines, and boosted their volume, turnover, and profit margins.

Furthermore, the abolition of the import license system also boosted the industry. Foreign exchange, which formerly was an object of political patronage, became available to the real players in the industrial sector. Industries were able to source their raw materials and equipment free from encumbrances which was of great benefit. The abolition of Value Added Tax (VAT) on pharmaceutical raw materials, coupled with the reduction of tariff on raw materials and equipment by the Nigerian government have greatly encouraged the pharmaceutical industry. NAFDAC differential tariff and her war against fake drugs is now creating a boom in the pharmaceutical industry. Presently, there are eighty-six (86) local pharmaceutical manufacturing companies producing less than 30% of Nigeria's drug need. Strengthening good governance is a good way to improving access to essential drugs.^[17,18,19]

Rational Use of Medicines in Nigeria

The conference of experts convened by World Health Organization (WHO) in Nairobi Kenya in 1985 in the definition of rational use of medicines (RUM) said, "The rational use of drugs requires that patients receive medications appropriate for their clinical needs, in doses that meet their own requirements, for an adequate period of time, and at the lowest cost to them and their community". Factors predisposing to irrational use of medicines cut across the healthcare system, prescribers, dispensers, patients and the community at large.^[20,21,22] Most of the Rational Use of Medicines studies in Nigeria were carried out in the south-western region (52.6%), while the north-eastern and north-western regions had the least (7.0% and 3.5% respectively). A good number of these RUM studies were carried out in hospital settings (77.0%) with very minimal work done in other settings like community pharmacies (4.1%). Studies suggest that 50% of patients take their medicines incorrectly.^[23] The medications supplied to the patients should also be in doses that meet their own individual requirements for an adequate period of time, and at the lowest cost to them and their community.^[24,25] Scholars believe that patient's views need to be carried on board in order to achieve rationality. Literature and publications have documented different ways of irrational use of medicines to include among others: over prescribing or polypharmacy,^[26] wrong use of antibiotics,^[27] wrong dosage, limitations associated with procedures and hospital policies,^[28] wrong self-medication characterized by use of ethical preparations^[29] and non-adherence to

treatment regimens.^[17,30] These could lead to treatment failures and negative consequences in chronic disease state management.

Findings and Discussion

Nigeria has international borders with the Republic of Benin in the west, Chad, and Cameroon in the east, and Niger in the north. Her coasts lie on the Gulf of Guinea in the south and Lake Chad in the north east axis. Nigeria has a surface area of about 923,772 km².^[31,32] With an estimated population of 150 million people; Nigeria is noted as the most populous country in Africa. Its population accounts for approximately one quarter of the people in West Africa.^[33] However; this huge population poses a serious challenge to provision of quality and cost effective drugs. Nigeria is plagued with high birth rate, high illiteracy, low investment and large scale unemployment.^[34,35] This poor economic status continues to plague numerous efforts being geared towards the attainment of the objectives of the NDP. The use and presumed effect of drugs on individuals and society have aroused a great deal of concern in Nigeria. Production, sales and illicit use of drugs, occupy the centre stage among the list of contemporary social problems in Nigeria. The extent and concern for this problem is indexed by drug prohibition agencies such as National Drug Law Enforcement Agency (NDLEA) and NAFDAC put in place to enact drug prohibition policies, regulate and control the importation, manufacture, exportation, sales and the use of illicit drugs.^[36] However, this mandate have suffered great setback due to corruption and weak monitoring and evaluation. Despite the prohibition of drugs and necessary action against defaulters in Nigeria, prohibited drugs are still being produced, sold and consumed in the country. Core ethical preparations are sold by patent medicine vendors and drug hawkers in motor packs, buses, and road side. Following military takeover of power, there were drastic changes and reformations in Nigeria drug laws in 1984. The most significant feature was the introduction of death penalty. Two laws were enacted that year. The first was an amendment of the Indian Hemp Act (which in itself was an amendment to the Indian Hemp Decree of 1966). This was called the Indian hemp (Amendment) Decree; the law repealed the 1975 Act and upheld severe penalties for trafficking in or sale of cannabis.^[37] It is worthy of note that a more significant development in drug law at this stage was the Special Tribunal (Miscellaneous Offences) Decree. This law decreed death penalty by firing squad for 'dealing in, buying, selling, exposing or offering for sale or inducing any person to buy, sell, smoke or inhale the drug known as cocaine or other similar drug'.^[38] The Decree had retroactive effects. Though it was promulgated on 6 July 1984, it was with effect from 31 December

1983, the day the government came into being through a military coup. This was a notorious law; for the first time in the history of Nigeria the death penalty was applied to drug offences when three young men who were arrested for cocaine and heroin trafficking before the Decree came into being were executed by firing squad. This was also the last time this measure was applied. Two years later, with the coming of a new military group, the 1984 Decree was amended and life imprisonment was substituted for the death penalty. This Special Tribunal (Miscellaneous Offences) (Amendment) Decree of 1986^[39] introduced new features into Nigerian drug law, the most significant of which was the provision regarding forfeiture of assets and passport. Many scholars argued that international collaboration in a reactive drug policy that relies on extreme measures may only succeed in temporarily suppressing or ameliorating the problem of trafficking and use. This is in line with what is obtainable in Nigeria today where despite grievous sentence, people still tread the terminal road all in the bid to make ends meet.

Pharmaceutical drug manufacturing industries globally is a huge investment with an estimated US\$ 900 Billion market. The Nigerian pharmaceutical market is estimated at US\$1.6-3.0 Billion and less than 0.3% of the national GDP. A whopping 60% -70% of her drug needs are imported predominantly from China, India, and Europe while the remaining 30% -40% of drugs sold within the country is manufactured locally. An estimated 17% of generic medicines in circulation are still fake or substandard while 30% of anti-malarials are regularly being faked; the NAFDAC introduced the mobile authentication system notwithstanding.^[2,9,40,50] The manufacturers source their active ingredients from India, USA, Germany and Indonesia among other countries. However, the National Institute for Pharmaceutical Research and Development (NIPRID) has been established to facilitate Research and Development into the pharmaceutical sector. The activities of this sector are greatly hampered by the poor power supply which has become a national plague. However, with the issuance of licenses to independent and private power operators, pharmaceutical manufacturers are expecting a tremendous boost in local production capacity and market shares. The herbal drug market remains largely undeveloped and untapped but with great potential for huge market share within the West African sub-region. Approximately US\$ 0.5 Billion was invested in the sector in 2014 to achieve WHO pre-qualification and many more funds are being injected into the sector to boost local production capacity to meet the demands of the teeming population and additional 100 million people within the sub-region. Presently, with a GDP of US\$ 502 Billion, Nigeria has emerged as Africa's largest economy.

The pharmaceutical sector has huge potentials to exploit towards boosting her local production capacity, increase in export and reduction of dependence on imported products through political will, policy implementation, review, and upgrade.

Drug Supply Management is a serious challenge to many public health institutions in the Nigerian health sector. It is further compounded by corruption and takes a negative toll on the economy. This is in line with studies conducted by the Directorate for International Development (DFID) and Partnership for Transforming Health Systems (PATHS) where it was noted that corruption even in health institutions is one of the leading causes of failure in the DRF scheme.^[41] Use of quality medicines promote trust and participation in health services. It is a major determinant of health services utilization.^[42,43,44] However, adulteration of medicines kills trust and destroys the lives it is meant to preserve. Realistic improvements in managing supply and use of drugs are possible when due process and attention is given to the management process. Prudent use of financial resources is achieved through the purchasing of medicines in the right quantities and competitive pricing, and appropriate selection and pricing to achieve optimum coverage of the most prevalent diseases.^[42] Good drug supply management helps to avoid wastage, out of stock syndrome and prevention of dangers associated with irrational use of drugs.^[45] Poor drug supply management accounts for high incidence of wastage and loss of huge financial resources that could accrue to the government.

Strict adherence to the drug management cycle is a systematic and holistic approach that could be used to ensure that medicines at all levels of health care delivery are consistently available and rationally used.^[36] Studies revealed poor funding by the government due to poor policy implementation and lack of monitoring and evaluation leading to the collapse of the DRF and RDU in the last three decades. Drug selection processes are chaotic at all levels along the chain. Good procurement is being limited by bureaucracy; prolong lead-time and political involvement in the selection of contractors for supply. Poor documentation and drug information management which gives room for pilferage, coupled with untrained personnel further threatens the already comatose system. This is in line with Foster et al who highlighted the limitations associated with drug supply management and their possible solutions.^[43,44,45] These collectively initiate “The Cycle of Terror” which further incapacitates the entire system leading to the shortage of funds and out of stock syndrome. Studies in China, Thailand, and Australia suggested improvement in drug policy structures, outputs and

impact following increase in funding. This is contrary to what is obtainable in Nigeria where many limitations still abound over two decades after the introduction of the NDP.^[46,47,48] Continual follow-up and update of health practitioners is vital to enhancing RUD in Nigeria.^[49,50,51,52] An enduring approach to promoting RUD could be the incorporation of the subject matter at the formative stages through curriculum review and development at undergraduate levels. It is in line with many studies which suggested that timely incorporation of desired intervention subjects, courses, proven measures and practices at formative stages, promises to be a lasting approach towards tackling the menace of irrational use of drugs.^[53,54]

Drug distribution in Nigeria with a current estimated population of 170 million people has been faced with so many challenges associated with increasing demand for essential drugs. All the five models of drug supply and distribution highlighted by Cohen, Mrazek and Hawkins namely: the autonomous or semi-autonomous supply agency; the direct delivery model; the prime vendor model; the fully private drug purchase, supply and distribution model; and the Central Medical Store (CMS) system are all operational at varying degrees in the Nigerian context. Many open drug markets exist where buyers buy any category of medication without restriction.^[17,55] The popular Idumota market serves the western axis of the country while The Head-Bridge Market at Onitsha and Ariaria Market at Aba, serve the eastern axis. Sabongari Drug Market in Kano is the most popular open drug market in the northern part of the country. Buyers from within and outside the country visit these open drug markets for their drug need. Community pharmacies and patent medicine vendors are the main channels of distribution and supply to the consumers. However, the Federal Government of Nigeria came up with a plan to close and streamline the chaotic drug distribution system in Nigeria before the end of July, 2015. The Federal Government of Nigeria has proposed the National Drug Distribution Guideline. The guideline is meant to allow three key channels of drug entry into the country from the manufacturers and importers namely: the mega drug distribution centers, the state drug distribution centers, and the national health program. These channels will interact with the wholesalers who will in turn interact with community pharmacies, private health practitioners, public and primary health care facilities and down to the consumers. This is aimed at streamlining and sanitizing the distribution system for better operation. It will help to eliminate the activities of quacks, tracking of substandard and fake drugs, and enhance better monitoring and evaluation practices. In order to boost efficient drug supply in the country, John Snow, Supply Chain

Management System, Presidents Emergency Plan for AIDS Relief (PEPFAR) and United States Agency for International Development (USAID)/DELIVER PROJECT in collaboration with key stakeholders in the Universities in Nigeria introduced Supply Chain Management (SCM) of pharmaceuticals and other health commodities into the curriculum for Universities in Nigeria. The pilot study was started with 12 Universities in 2012. This was initiated to strengthen the capacity of facilities to be properly positioned to manage health commodities and logistics within the country. The first batch of the students with the knowledge of SCM and Logistics Management (LM) graduated in April, 2015. This is a positive development towards improving drug supply management in Nigeria.^[56]

CONCLUSION

The establishment of the National Drug Policy in Nigeria is a laudable development aimed at boosting the pharmaceutical sector to aid quality drugs availability, affordability, and rational use. It is tailored towards boosting health care delivery in the country through the pharmaceutical sector. The country still depends largely on imported drugs with reasonable generic substitutions in both government and private hospitals. Institutionalization of Drugs and Therapeutics Committees, drug information centers, DRF in most of the secondary and tertiary healthcare facilities have been achieved to a reasonable extent. However, a more pragmatic approach is required to strengthen and fully operationalise the entire framework. Huge resources have been committed to the eradication of substandard drugs. However, with high incidence of fake and adulterated pharmaceutical products, under production of medicines by local manufacturers to meet the local demand of essential drugs, poor regulation, distribution and control of pharmaceuticals, more effort is required to consolidate on the progress made. The government and agencies should match theory with practice. An accelerated implementation approach should be coupled with strict monitoring and evaluation in addition to functional feedback mechanisms with rooms for improvement.

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