

**ESSENTIAL DRUGS REVOLVING FUND SCHEME IN NIGERIA; FROM THE
EDGE OF A PRECIPICE TOWARDS SUSTAINABILITY**

ABSTRACT

Efficient and effective preventive and curative care rely predominantly on the availability of essential drugs. Most African countries are characterized by the cycle of terror leading to decapitalization and lack of sustainability of essential drugs revolving fund (DRF) system. This study described the DRF situation in Nigeria. ways to promote better management and utilization of the scheme. Published studies and documents obtained through electronic search on Google scholar, and Pubmed using the key words singly and combination of key words. The eligibility criteria used were studies published in English language, studies conducted in Nigeria, and those with defined inclusion criteria and ethical approval. Studies, which met the eligibility criteria, were used for the study. Study suggested that poor economic, political, and business forecasting and human factors contribute greatly to DRF decapitalization in most government hospitals in Nigeria.

Key words: devaluation, funding, essential drugs, revolving fund, health care, Nigeria

Introduction

Access to the essential drug is important for an efficient health care delivery. The provision of safe, effective, and affordable drugs to the whole population at the right quantity is a priority in health and drug policy ^[1]. The concept of drug revolving fund was introduced through the Bamako initiative to be one of the ways of solving the challenges and difficulties in having availability of medicines ^[2]. Drug Revolving Fund, DRF, is a system whereby the revenue generated by the sale of drugs to patients is used to purchase new drugs. The aim is to provide safe and quality drugs of affordable prices and is usually part of wider user charge scheme ^[3]. Nigeria has been one of the most active supporters of Bamako initiative, viewing the initiative as a strategic opportunity to support local councils in promoting health care delivery at the grass root ^[4]. DRF was adopted in 1988 with financial and technical support from support and donor agencies like the World Health Organization (WHO), United Nations Children's Fund and the United Kingdom Departments for International Development (DFID) ^[5]. The DRF mechanism within Bamako initiative was adopted as the initial approach for sustainable financing of drug supply at the local level. The case for the use of a generic essential drug list in Bamako initiative was hinged on the fact that generic drugs are cheaper

33 and should be captured in Essential Drug List (EDL) ^[6]. New drug introduction into the
34 system involve selection from EDL according to need, efficacy, safety, and affordability of
35 the product ^[7]. The concept of an essential drug list as proposed by WHO is, “that *the list*
36 *should comprise drugs corresponding to the health needs of the majority of the people*”. In
37 Nigeria, patient’s visits to hospital dropped by 50-75% when health facilities ran out of
38 commonly used drugs ^[8]. Regular supply of drug in a health care facility is one of the major
39 hallmarks of an efficient health system in both the perspective of patients and care providers
40 as well as that of the policy makers. Many governments, nongovernmental organizations,
41 community health program have implemented user fees to fund or partially fund to cost
42 pharmaceuticals or other health services. Many different types of DRF exist. Their common
43 element is that fees are charged for medicine dispensed. In the Bamako initiative context,
44 community pharmaceutical schemes often have cost-recovery objectives that include the
45 financing and sustainability of Primary Health Care programs. This study described the DRF
46 situation in Nigeria to uncover the gaps that should be mended to obtain robust structures
47 and promote sustainability.

48

49 **Methods**

50 Electronic search was carried out using Google scholar, Embase and officially published
51 documents relevant to the subject. Key words like essential drugs, revolving funds, cost
52 recovery, decapitalization, capitalization and Nigeria were used singly and in combinations.
53 Official publications from reorganized websites were used. Study was carried out between
54 October 2015 and March 2016. The criteria for selection were studies published in English
55 language, studies conducted in Nigeria, and those with defined inclusion criteria and ethical
56 approval. Studies outside Nigeria without defined inclusion and exclusion criteria were
57 excluded. Articles and published documents with any form of bias due to funding or
58 affiliation were excluded. Information were extracted independently and summarized based
59 predominantly on qualitative level.

60

61 **An overview of the concept of DRF**

62 This is where the seed money provided by the government, donor agencies or interested
63 community is used to purchase an original stock of essential and commonly used medicines
64 to be sold, ideal at a price sufficient to replace the stock of medicines and ensures a
65 continuous supply. DRF is very necessary in health care delivery in developing countries
66 because essential medicines are critical component of effective preventive and curative care,

67 patients perceive the increased availability of medicines and other pharmaceuticals as real
68 improvement in the quality of care, and patients are willing to pay for the pharmaceuticals.
69 Patients spend more money buying pharmaceuticals, but spend less through DRF and have
70 increased value of drugs of which they have paid for as evidenced by improved level of
71 adherence ^[9]. DRF linked to essential drug has improved efficiency of pharmaceutical
72 services and increase revenue and increased price awareness by prescribers and patents may
73 result in improved use of medicines. If current public financing is sufficient to ensure
74 universal access to essential medicine without charge, medicine fees are unnecessary. If
75 current financing is inadequate, DRF can provide supplementary resources to make low-cost
76 essential medicines more accessible ^[10]. Cost recovery plus minimal surplus in DRF is
77 associated with substantial revenue generation, which is added to central allocations for
78 improved service and sustainability of the scheme. This translates to improved quality of
79 care, available pharmaceuticals and improves revenue.

80

81 Equity is promoted as limited public funds can be targeted to helping most needy through
82 discounts and exemptions while the rest pay ^[11]. Decentralization of DRF services is re-
83 enforced through local control of resources through the DRF committee. In order to improve
84 efficiency, the design should include community involvement, careful implementation
85 associated with quality improvement, and good management, monitoring and evaluation.
86 DRF needs commitment to the public health goals. It should incorporate planning,
87 implementation and management principles ^[12]. There should be a thorough situation analysis
88 and feasibility assessment. It should use a financial plan that considers cost recovery
89 objectives, capitalization requirements and long term financial needs ^[13]. Determination of
90 the organizational structure, staffing, and legal status of the DRF is paramount to its success.
91 The operators should develop an implementation plan, determine pricing and exempting
92 policies, develop the necessary systems for pharmaceutical and financial management,
93 prepare public communication system, monitor impact and adjust the program accordingly.

94

95 **Situation assessment of DRF in Nigeria**

96 Weak political, socioeconomic, managerial, and administrative circumstances structures all
97 impact negatively on the DRF system operation ^[14]. When considering discontinuing DRF,
98 the government must take measures and have the resources in place to handle the
99 consequences of losing revenue, such as stock out syndrome and upsetting healthcare
100 providers who have come to rely on fees to supplement income ^[15]. Political issues for

establishment include acceptance of the user fee concept ^[16], local retention of fee revenue, local retention, political and administrative and decentralization ^[17]. Can sufficient fund be recovered to justify the efforts required to make DRF successful? The answer to this question depends in national and economic strength, patient ability, and willingness to pay, competitions, availability of capital, and policies ^[18].

Can a cost recovery system operate? There should be accountability, businesslike orientation, supply management capacity and prudence in managing DRF. This involves defining that cost-recovery objective, the roles of government and external funding, capitation requirement and foreign exchange. Implementing planning involves decision about bottom – up versus top-bottom implementation phasing and pilot testing and development of DRF procedures ^[19]. Pricing and exemption policies are essential for DRF efficiency and sustainability ^[20]. Management of pharmaceuticals and funds need well-coordinated selection, procurement, quality assurance, distribution, management information, and medicine use. The entire process is meant to be in line with the essential drug list. Rational drug use and proper inventory management, and accountability of every money spent help to avoid depletion of the capital ^[21]. Mentoring the entire health staff, stakeholders, and periodic trainings are invaluable for smooth running of the scheme. Regular monitoring and supervision are important in assessment of the impact of DRF on patients and financial performance of the system ^[22].

Before the introduction of DRF, acute shortage of essential drugs was seen in most public hospitals in Nigeria. However, DRF was adapted to solving the problem of acute shortage of essential drugs. Nigerian tried different DRF systems including centralized state controlled schemes manned at state levels, the Petroleum Trust Fund (PTF) support scheme through subsidy from petroleum resources, and 50% cost recovery DRF system ^[23]. None of these was successful due to insufficient financial resources, undue political interference in the functioning of the scheme ^[24], inadequate managerial and financial autonomy, barrier to access for the very poor and vulnerable, poor capacity of facility staff, and operation guidelines insensitive to the local environment and poor management ^[25]. Lack of a culture of transparency and accountability within the health system, the community, and limited capacity for rolling out the schemes militate against the scheme. A review of the previous DRF in 2003 indicated that four interventions for a successful DRF. These interventions include establishment of facility based DRF system ^[26], strengthening financial management

system, creation of safety net for the very poor and establishment of an assured source of drugs. The focus was to establish DRF and financial management system. In some states, safety nets for the very poor were introduced. Establishing or strengthening existing state medical stores, as an assured source of drugs and medical supplies for health facilities, was addressed. Stakeholders recognized the importance of involving a critical mass of health facilities in the sustainable drug supply mechanism whose impact is measurable ^[27]. Thus, statewide rollout took place once the DRF model was experimented in a few facilities. The DRF and financial management system against a backdrop of acute shortages of medicines and related products, lack of financial prudence, political affiliations and poor monitoring and evaluation led to emergence of different unregulated and illegal DRF unethical practices in many facilities.

Four levels of DRF were established, the central medical stores, Local Government Areas, hospitals and primary health facilities ^[28]. DRF has been practiced based on essential drug since Nigerian governments imbibed the idea. It has not been fully implemented according to the original blue print as many sociopolitical and economic issues bordering on autonomy and poor implementation and corruption. Many hospital managements in Nigeria have decided to modify the operations and principles of DRF such that it no longer conforms to the original plan. These hospitals have enlarged the scope of the activities of DRF by including several other departments in the operation and management of DRF. In some places some pharmaceutical products like needle and strings, antiseptics cotton wool etc. that were supposed to be under the control of pharmacy department are now under the control of other hospital departments. Recently, the emergence of Public Private Partnership (PPP) was introduced as the main system for drug procurement where there is inefficiency in the operation of the existing DRF. This PPP is a system where by the private pharmacies to collaborate with the public pharmacy in supplying and management of drug and other pharmaceutical. The gains from such PPP are to be shared by both the private and public pharmacies in line with laid down rules. Proper implementation of PPP without interference from hospital management could ensure availability of essential drugs ^[28].

Limitations to effective DRF system in Nigeria

There were critical challenges in strengthening the financial management systems at the early stage of DRF operations in Nigeria. The major challenges were multiple oversight and interferences on the scheme predominantly from their resident institutions leading to weak

financial management systems and poor accountability. In many states in Nigeria, State Hospital Management Boards have been established to exercise the necessary oversight over hospitals while the State Ministry of Health were charged with the responsibility of Planning and Policy Formulation. In few cases, the health and human services secretariate combined the function of State Hospital Management Board. This created different set of accounting rules ^[29]. Several other changes include establishment of financial management system in facilities in the face of acute shortage of account staff, establishment of weak financial management systems, untrained and unqualified staff, corruption and lack of monitoring and evaluation framework ^[30]. However, the availability of essential drugs have been improved unlike the when there was no DRF policy. The major challenges lies with accountability, efficiency and sustainability to avoid decapitalization which leads to cycle of terror and collapse of the system.

There is compelling evidence irrational use of drugs. It is not just enough to make essential drug available through DRF, but the stronger measures or policy should be made to encourage rational use. Drugs are better used in a system that better regulatory frameworks, standard treatment schedules, training and supervision to avoid irrational use ^[31]. DRF adopted from the Bamako initiative has been subject to wide-spread criticism at its inception ^[32]. One of the areas identified by those who prefer a need-determined basis for policy making was an excessive emphasis on drugs relative to other components of health delivery system. They argued that linking finance with drug supply might re-enforce an undesirable emphasis in drugs in the mind of both patients and community health workers.

Concerns were expected on the potential impact of the rational use of drugs. One of the limitations of the operation of DRF and essential drugs is non availability of essential drugs, which cause problems for the treatment of disease that predominantly affect the developing countries like Nigeria ^[33]. Though constant provision of these essential drugs is vital, their rational use at the lower levels of healthy services like primary health care (PHC) without supervision is problematic. The issue of irrational prescribing practices is also major concern ^[34]. Inappropriate prescribing practices by health workers encourage inappropriate self-medication ^[35]. Brand prescription is common which lead to diversion and loss of prescriptions and revenues to people outside the hospital. Drug therapy problems like over prescribing, especially of antibiotics is evident. This increases the tendency for antibiotic resistance development. Poly pharmacy is very common in multiple disease states. ^[36].

Critiques claimed that collection costs might exceed revenues when the full cost of developing the system and all additional administrative costs are considered. No improvement may take place in pharmaceutical availability and other quality measures. They argued that user charges might become a form of “sick tax” substituting for rather than supplementing central allocation. People, particularly the poor, are dissuaded from seeking essential health care. Experience has also shown that cost recovery mechanisms are rarely able to achieve the standard of DRF in the long term. Programs, which implemented large fees without consideration on the public and little improvement on quality, attract little patronage. Those with little attention to management and accounting systems have resulted in abuse and generated little revenue. DRF schemes that do not consider re-investing revenues to improve quality of services and operation have resulted in decline of public confidence and patronage. DRF schemes without quality and reliable sources of low-cost medicines remain comatose. Some DRF schemes overcharge with drug prices higher than normal leading to low patronage while some have unusually low prices leading to decapitalization. This may be because many see DRF as a nonprofit venture. DRF systems in most public health institutions in Nigeria today are decapitalized and poorly operated with interferences from hospital management. Sometimes funds are collected from the system for other non-related purposes. Corruption, pilfering expiry of drugs on counters are usually occasioned by lack of improved software’s and computer systems in managing the scheme.

Steps and recommendations towards better utilization and management of DRF schemes

DRF schemes as a business venture and should be managed as such without compromising on quality, services, and patient care. All operators must see the DRF capital investment as a money strictly meant for business and should be guarded and managed based on sound financial principles. Expansions should be based on proper forecasting, situation analysis and use of data generated for making informed decisions. Strict monitoring and evaluation can only be effective through inputs from feedback mechanisms which must be implemented and controlled by supply of cost effective essential drugs supply, rational exemption policies for equitability of access, revenue retention and accountability. Implementation of DRF projects systematically and in phases should be encouraged. The DRF account independently maintained for ease of access is preferable while upholding the stakeholders to maintain public confidence. Theft, pilfering, expiration of drugs which has crippled many DRF

systems could be minimized or controlled by the use of effective soft wares, good management information systems and physical measures. Cost recovery potentials which if user and operator friendly should be upheld ^[38, 39, 40]

Prospects of DRF in Nigeria

In November 2007, a review of the models recommended that there was a need to reverse the models to both improve operational efficiency, reduce costs, and to deal with critical emerging issues in the health sector. The model of DRF should metamorphose into a more general “sustainable drug supply systems ^[31], Reduction of workload by collapsing and simplifying resultant paper work and addressing poor staffing by specifying minimum staffing requirement. Increased utilization of services and modification of the pricing system at the L.G.A/PHC levels whereby the operators includes the cost of expenses incurred for replenishing their stock into the price of drugs will boost cost recovery and lead to formidable DRF systems especially in places where subsidies are not obtainable. This will make the scheme to be self sustainable, reliable for improved cost effective services, and improved availability of essential drugs ^[37].

Conclusion

Achieving sustainable universal health coverage without a viable, efficient, and affordable drug supply system will be a mirage especially in developing countries. Government must spread her tentacles to fight corruption and decadence in the system and track her operations at all level of health care through sound monitoring, evaluation and feedback mechanisms. Advocacy strategy should be promoted during implementation as well as scaling-up or rollout, which should include setting up the state team of facilitators. Strengthen the oversight agencies so that they can serve efficiently as a repository of data from the facility and provision of models for a central drug supply system at the state level of an assured source of drug and other medical supplies should never be compromised. Sales should be extended faith based sector. To promote equity of access and improve overall performance, of the scheme, cost recovery potentials, organizational structure, planning, process, financial management systems, government funding and exemptions should be reviewed periodically. This is without prejudice to public communication, monitoring and supervision, external funding, stakeholders’ involvement, drug supply systems and scale up. These will help to arrest the “Cycle of Terror” which recapitalizes the entire system leading to inefficiency and system collapse. The roles of continual operators training, consideration of the economic,

population dynamics, political, and managerial status as it affects operations should be captured during planning.

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