



Research Paper

Synergistic Roles of Public-Private Partnership for Effective Mass Campaign Of Long-Lasting Insecticide Net Distribution in Nigeria

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ABSTRACT

This study was conducted to assess the synergistic importance of public-private partnership (PPP) for effective health care delivery in Nigeria using long-lasting insecticide nets as a parameter. The key objectives of PPP for health care are to increase coverage of essential health interventions, improve the quality of care provided, and control excessive health care costs to users. PPPs represent a wide spectrum of possible relationships between public and private actors for the provision of public health and health care service. To this end, the study recommends that Government should be aware that partnership and collaboration is key in achieving desirable results towards elimination of malaria in Africa. Therefore, the combine resources of international donor agencies, private sector (individual and corporate) and government should be seen as sine qua non elements needed in the fight against malaria.

KEY WORDS: Diseases, Health care, Funding, Intervention and Malaria

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I. BACKGROUND

Amid calls for increased funding for infectious disease from extant authorities across the globe, there has been high profile advocacy and debate about how to increase availability and uptake of effective malaria control interventions (Nghochuzie, Olwal, Udoakang, Amenga-Etego & Amambua-Ngwa, 2020). Much of this debate centers on the appropriate roles for the public and private sectors in financing and delivery of malaria control interventions. As part of the comprehensive development framework, public-private partnership is regarded as being increasingly encouraged in fostering efficient, effective and equitable goals achievement.

In the health sector as the case may be, public-private partnerships are equally issues of intense contest. According to Almalki and Al-Hanawi (2018), several examples, which fall within this framework, highlights a potential for the creation of a powerful mechanism for addressing difficult problems by leveraging on the strengths of different partners. However, these also illustrate complex issues, as such arrangements bring together a variety of players with different and sometimes conflicting interests and objectives, working within different governance structures.

Malaria is well recognized as a threat to social and economic stability causing more than one million deaths each year in sub-Saharan Africa. In response, the international donor community and partner governments in Africa have provided unprecedented funding for malaria control interventions (Maharaj, Kissoon, Lakan & Kheswa, 2019). Despite the numerous malaria intervention commodities such as integrated vector management (IVM), intermittent presumptive treatments in pregnant women (IPTp), passive case detection and treatment, indoor residual spraying, use of artemisinin-based combination therapies (ACT), increasing reliance on mass distribution of free mosquito nets across the climes of the world is becoming dominant. Evidently, in the malaria endemic regions, mass distribution campaigns are majorly funded through public health framework such as Global Fund, President's Malaria Initiative and World Bank's Booster Program. This approach however, has not effectively harnessed crucial resources available through the domestic

private sector, thereby, leaving achievement of malaria elimination goals in such countries to potential vulnerable future fall-off in external funding.

In sub-Saharan Africa, for instance, the percentage of the 'at risk population' that slept under an LLIN increased from 5% to 53% between 2005 and 2015 (World Health Organization, 2016). Over the past decade, there have been significant advancements made towards achieving malaria control- related goals and the scale-up of interventions have resulted in declines in malaria mortality and morbidity (World Health Organization, 2016). The scale-up of vector control, and the increased coverage and use of LLINs, is considered a major contributor to these achievements. Bhatt et al (2015) estimated that 68% of the malaria cases averted between 2000 and 2015 were due to bed net use. However, these recent gains in malaria control could be jeopardized by mosquito resistance to the insecticides used on LLINs and inadequate financing to maintain coverage levels. Global investment for malaria increased between 2000 and 2010. However, funding has since leveled, totaling US\$ 2.9 billion in 2015, less than half of the 2020 milestone of US\$ 6.4 billion (World Health Organization, 2020). A funding shortfall at both the international and domestic levels poses a significant threat to future gains. In 2019, total funding reached US\$ 3 billion against a global target of US\$ 5.6 billion. Funding shortages have led to critical gaps in access to proven malaria control tools. This has also led to concerns about the future of LLIN coverage, and a renewed interest in looking for additional private sector investment to finance, produce and deliver LLINs.

The long-lasting insecticide net is seen as offering African countries the best chance in malaria prevention. Not only is it cheaper in the longer term, but it comes factory pre-treated and retains its repellent efficacy throughout the normal lifespan of the netting material itself, which can be anywhere between two to five years. LLINs has been recommended as one of the main malaria control tools by World Health Organization with a special focus on pregnant women and children under five, two groups at highest risk of the disease. Demonstrated public health benefits include reduction in child mortality/morbidity sufferings and economic losses. In economic terms, the availability of treated nets to all to increase use confers a public benefit by reducing mosquito longevity. So, even those not sleeping under nets receive a benefit. For this reason, there is a strong economic rationale for public- private partnership to ensure use of treated nets. The challenge for the international community has been to sustain coverage gains with the best operational and financial efficiency and preserve equity.

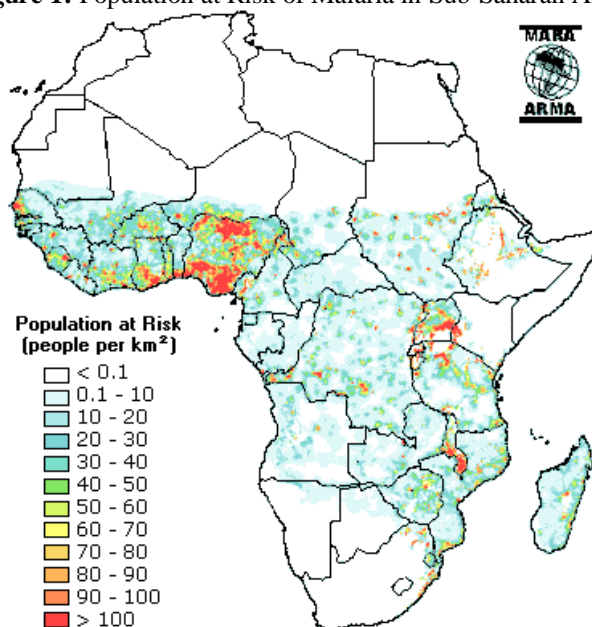
A central question in malaria control is how to proceed from blanket coverage campaigns for urgently needed nets to a continuous and sustainable delivery. This article presents a case and framework for a more systematic approach to partnering with the private sector as a means of increasing the distribution of LLINs and sustaining these gains over time. Also, the existing deficiency of descriptive empirical literature on public-private partnership delivery inhibits clear understanding of how to facilitate the integration between the public and private partnership, particularly in emerging markets such as Nigeria.

Scholars such as Alonso & Noor (2017); Yang, Kim, Pham & Paul (2018); Rogerson, et al, (2020) have developed several theoretical explanations to justify why mass distribution of mosquito nets have not yielded positive result as expected in sub-Saharan Africa. This is in terms of household coverage among the populace. The commonly cited justification is, funds scantiness and over-dependence on funding from international funding agencies which exposes countries in sub-Saharan Africa especially, Nigeria because of the alarming population growth rate yearly to potential threat of not conducting mass campaign regularly as expected. This obviously is a challenge to the sustainability of on-going malaria control and elimination plan. A number of previous studies such as Ren (2019); Talapko, Skrlee, Alebic, Jukic & Vcev (2019); Dieleman et al (2019); Ugwu (2019); Ithibu & Amendah (2019) among others have established that countries especially those in Africa largely depend on the donors. For instance, in Nigeria, institutions like Global Fund and President's Malaria Initiative and World Bank's Booster Program are the major drivers of mosquito net distribution through the positive role of one of the leading non-governmental organizations- Society for Family Health in Nigeria among others.

Currently, a number of major distribution and financing models have been implemented, and they have provided a good body of global experience. Such models include: focus on multi-lateral program funding mechanisms utilizing contributions from different country governments, free distribution through public health facilities, free distribution in the frame of measles vaccination campaigns, integrated approaches etc.

Among the many considerations that are important for supporting large-scale long-lasting insecticide nets (LLINs) deployment across various geographical locations, there is one that is central to our debate: the need to have private sector, scaling up with the public sector. With this policy, setting up systems that will ensure long-term availability and sustainability of funds for effective net campaigns will help in curbing malaria, most especially in those endemic regions of the world and Africa particularly. This study thus, hinges on the activities of non-governmental organization- the case of Society for Family Health (SFH) in harnessing the required synergy from such partnership for mass distribution of mosquito net in Nigeria.

Figure 1: Population at Risk of Malaria in Sub-Saharan Africa



Source: WHO/ AFRO <http://www.afro.who.int/malaria>

II. LITERATURE REVIEW

Conceptualization of Public-Private Partnership

Public-Private Partnership is an arrangement when government and inter-governmental agencies interface with the for-profit private sector to tap into resources, or the non-profit private sector for technical expertise or outreach (Wang, Xiong, Wu & Zhu, 2018). Several varieties of arrangements of various sizes, forms and scope at a global, regional or country level qualify to fall within this categorization.

Transnational partnerships involving a visible role of the for-profit sector are at one end of the spectrum. These usually involve larger partnerships and a complex grouping; depending upon their structure, they may bring together several governments, local and international NGOs, research institutions and UN agencies in transnational programs, often also involving the non-profit sector. Such partnerships can be housed and coordinated by different sources (Lawrence & Hirsch, 2020). They can be owned by the public sector and have private sector participants such as in the case of Global Alliance for Vaccines and Immunization (GAVI), Roll Back Malaria (RBM), Stop TB partnership (Stop TB), World Bank's Booster Program (WBBP), Safe Injections Global Network (SIGN), Global Polio Eradication Programme (PEI), Global Fund (GF), President's Malaria Initiative (PMI), the Special Programme for Research and Training in Tropical Diseases (TDR), and the Special Programme for Research Development and Research Training in Human Reproduction (HRP). Partnerships can be principally orchestrated by companies such as in the case of Action TB, and can be legally independent such as the International Aids Vaccine Initiative (IAVI), Medicines for Malaria Venture (MMV), Global Alliance for TB Drug Development (GATBDD), and the Concept Foundation (CF). Large partnerships can also be hosted by a civil society NGO; examples include the Malaria Vaccine Initiative (MVI), the Mectizan Donation Programme (MDP), and the HIV Vaccine Initiative (HVI).

At the other end of the spectrum, there are examples of individual governments forming partnerships with the for-profit private sector. There are also examples of situations when a government partners with an NGO (such as Society for Family Health, Nigeria) with a particular strength on specific technical or outreach related intervention. The recent evolution of a public-private partnership for the prevention and control of non-communicable diseases in Nigeria is an example of this approach, where the government leverages on the technical strength of the donor agencies and selected private sector partner for addressing an emerging health challenge. Examples also exist of NGOs (Indigenous or international) seeking support from corporate partners both at a national and an international level. Also, recent developments in the field of health have led to a renewed interest on how public-private engagement can be explored in harnessing resources needed to fight against endemic diseases. Thus, the crux of this study is to establish a model and provide insight for the importance of synergistic roles of the public and private sectors for effective health care delivery.

Public Sector Intervention on Insecticide nets

A brief history of global health policy in relation to ITNs and LLINs is presented below to give an understanding of the origins of current global demand for LLINs. Running alongside these developments are

key milestones in global health policy, notably the adoption of the Millennium Development Goals (MDGs) in 2000 which specifically called for donors and countries to combat malaria and reduce child mortality due to the disease

1984-1999 Development of ITNs as a public health tool

The first successful evaluation of pyrethroid impregnated (treated) mosquito nets against malaria vectors was published in 1984 (Bayili et al, 2017). In the 1990s, studies showed that mosquito nets treated with pyrethroid insecticides (ITNs) were safe and highly efficacious in reducing all cause childhood morbidity (D'Alessandro et al., 1995) and were highly cost-effective (Goodman, Coleman, & Mills, 1999). These developments sparked a debate about how to best distribute and finance use of mosquito nets and insecticides (Randriamaherijsaona, Raharinjatova & Boyer, 2017) which continues today.

2000-2007 Emergence of LLIN technology

In 2004 a Cochrane review on ITNs concluded that “ITNs are highly effective in reducing childhood mortality and morbidity from malaria”(Lengeler, 2004). However, nets had to be treated with insecticide every six to 12 months to maintain a level of protection that went beyond the physical barrier of the net. Even where single treatment sachets of suitable insecticide were commercially available and in areas where mosquito net use was traditional and well-established, up take was low (Kilian et al, 2013). In response to this, World Health Organization stimulated net manufacturers to produce LLINs and by 2001, two were commercially available. WHO’s Pesticide Evaluation Scheme (WHOPES) recommended Sumitomo Chemical’s Olyset Net as an LLIN for malaria control in 2001 (World Health Organization, 2001) and granted “interim recommendation” to Vestergaard-Frandsen’s PermaNet in January 2004 (World Health Organization, 2004).

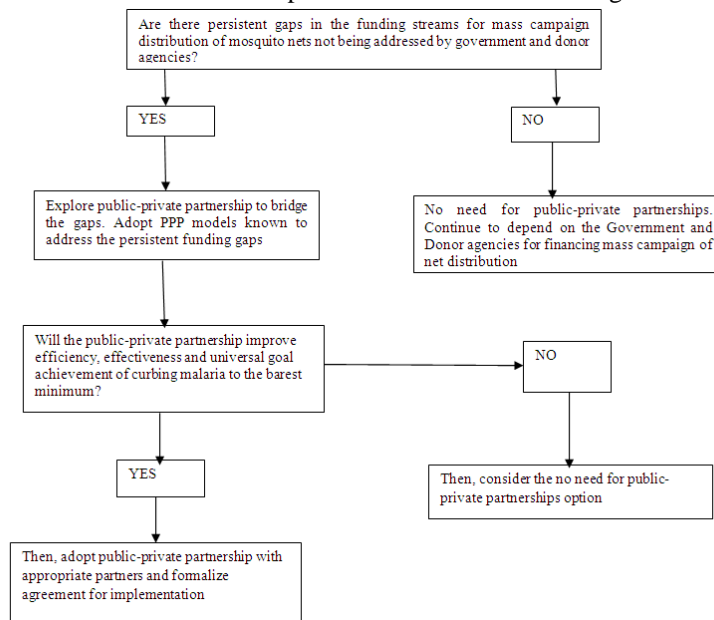
2007-present Push for Universal Free Access to Vector Control with LLINs

In 2007, the WHO issued a position statement on the use of LLINs for malaria prevention (World Health Organization Global Malaria Programme, 2007). For the first time, WHO recommended that insecticidal nets be long-lasting, and distributed either free or at highly subsidized rates (either directly or through voucher/coupon schemes) for full coverage of all people at risk of malaria, marking a shift from the focus on pregnant women and children under five years old. WHO also recommended that national malaria control programmes and their partners involved in insecticide-treated net interventions implement strategies to sustain high levels of LLIN in parallel with strategies for achieving rapid scale-up. Although WHO emphasizes the role of public health services in LLIN implementation, it does not exclude the involvement of the private sector which have played and will continue to play a complementary role in implementing LLIN interventions.

Proposed Public-Private Partnership Model for effective financing of Nets campaign

Figure 2 below depict the model for public-private partnership for effective mass campaign of mosquito nets.

Figure 2: Public-Private Partnership Model for effective financing of Nets campaign



Source: Authors (2021).

III. METHODOLOGICAL APPROACH

The study used content analysis research methods including case studies and literature review. The case study approach is used in the research as it allows in-depth data collection, involving multiple sources of information in a specific period of time (Barratt, Choi & Li, 2011). Case studies reveal, 'a decision or a set of decisions. In the present research, the case study method was used to analyse why public-private partnership should be used in addressing scantiness of funding towards effective distribution of long-lasting insecticide nets in Nigeria.

IV. CONCLUSION

As demonstrated in this article, the private sector is active in the fight against malaria. Its comparative advantages in provision of the commodities for distribution by Public health workers, non-governmental organizations among the populace are very obvious. However, the burden has been placed on the public and international donor agencies alone, thereby reducing long-term sustainability for coverage programs. There is a current need for 730 million additional LLINs by 2025, predominantly in Africa (Roll Back Malaria, 2020). Against this staggering need is the reality of a global recession and high risk of shifting donor priorities to other pressing needs because of the corona virus pandemic (COVID-19) ravaging the sphere of the world. The current path of external funding (Global Fund, President's Malaria Initiative, World Bank Boosting Program) and public sector channels cannot get us where we need to go alone. To this effect, a re-engagement of the private sector is urgently needed to optimize public sector strengths, tap new resources, and make better use of existing channels to expand access to malaria intervention and reduce the financial burden on governments.

Also, the National Malaria Control Programs of various countries in sub-Saharan Africa (SSA), Nigeria inclusive should develop models for malaria-related public-private partnership, derived from successful pilot programs, to build long-term business engagements where donors, governments, commercial suppliers, private sectors and NGOs interact on a continuous basis for mass distribution of mosquito nets.

V. RECOMMENDATIONS

Government should be aware that partnership and collaboration is key in achieving desirable results towards elimination of malaria in Africa. Therefore, the combine resources of international donor agencies, private sector (individual and corporate) and government should be seen as sine qua non elements needed in the fight against malaria. A proactive emphasis is urgently needed in strengthening partnership and collaborative initiatives with the private sector with a particular focus on public-private synergy. A policy thrust must be put in place in order to harness resources needed in financing mass distribution of mosquito nets in Africa among her citizenry.

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